THE INFLUENCE OF TECHNOLOGICAL AND SCIENTIFIC INNOVATION ON PERSONAL INSURANCE

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I – GENERAL INTRODUCTION

It is a great honour for the Argentine Association of Insurance Law, to have been entrusted by the Presidency Council of the International Association of Insurance Law (AIDA, for its Spanish acronym) the responsibility to prepare the questionnaire sent to all the National Sections and the elaboration and account of the general report referred to the subject “The Influence of Technological and Scientific Innovation on Personal Insurance”, in this XII World Conference of Insurance Law.-

We think that the history and experience of the qualified jurists of the Argentine Section that preceded us had a great influence on the choice of our country as seat for such great academic event and to confer on us the distinction of this presentation.

We cannot help remembering here and now that Drs. Juan Carlos Félix Morandi and Eduardo Steinfeld attended the First World Conference of Insurance Law held in Rome from April 4 to 7, 1962.

We cannot help remembering that two former Presidents of our Association had the privilege of being the speakers of the general reports at the World Conferences of Insurance Law. Dr. Isaac Halperin developed the subject “The Insurance and the Acts of Violence Against the Community Affecting People or Assets” in the IV World Conference held in Laussane, Switzerland in April 1974, and Dr. Juan Carlos Félix Morandi, who at the VII

World Conference held in Budapest, Hungary in May 1986, dealt with “Aggravation and Other Risk Modifications”.

We have accepted to be the host country and to take charge of the general report assigned, interpreting such distinctions as a fair and deserved tribute from the world and the national communities of Insurance Law to the always remembered teachers Isaac Halperin, Juan Carlos Félix Morandi and Eduardo R. Steinfeld, jurists who went far beyond our frontiers with their contributions, their teachings, their doctrine, turning into unquestionable referents of Insurance Law in all latitudes and continents and who are not here with us.

II – SPECIAL INTRODUCTION

Certainly it has not been a simple task to prepare the items of the general questionnaire remitted to AIDA National Sections and to process the answers received for the elaboration of this report and account.

The scientific and technological innovations that took place in the last years have outlined the human development at unprecedented speed compared with other historical periods. The expansion of the knowledge frontiers and its specific applications have introduced a significant change into the daily life and future and certainly into health, life and its span all of which significantly and deeply affects the technical aspects of personal insurance and coverage contracting and the fullfilment of the services committed.

We have limited the scope of this study only to those matters that we consider significant and relevant to our discipline, avoiding the temptation to include subjects that even though they have a scientific and academic interest have no direct and specific influence on the personal insurance coverage or, if they have, their importance is only secondary.

The communication innovations, the widely spread use of computers and the Internet, have affected certain aspects of insurance contracting and therefore should be dealt with. The possibility of contracting insurance through electronic means, the manner to express consent, the claim, the matter of the evidence, the digital signature and its verification, the protection of databases or personal data, the good use of this technological resource and its possible misuse well deserve a thorough analysis, pointing out that computer effects on the users' health is not a minor subject due to the ray exposure as well as the abusive exposure to cellular phones.

The scientific and technological innovations have highly positive aspects or facets, but they may also produce unwanted side effects, harmful for the life or health and these consequences must forcibly be assessed. In the questionnaires, we have described these contingent undesirable effects as the dark side of scientific and technological innovations.

In personal insurance, this dark side has a significant claim potential due to the possible high number of insured affected in different kinds of coverage. Hence we must think about the events not excluded from these kinds of coverage, in the insurer possibilities of subrogation and in those events where third parties' responsibility in the event that gave place to the insured's compensation could be determined.

The progress of medicine and the diagnosis methods, have a strong impact on the exact risk determination for health or expense coverage and for the human life extension; hence our interest.

Deciphering the human genome and the applications of this knowledge that leads us to the preventive medicine field, will bring consequences hard to foresee in all its magnitude as regards personal insurance. That explains this report extension in the analysis of this problem with the elements that presently can be viewed.

We outline then the conceptual frame of our survey and the focus of our interest keeping it to the object of the call, methodology that allows us to make considerations that we deem useful for further reflection on the diverse countries that are members of the International Association of Insurance Law.

III – PREVIOUS CONSIDERATIONS TO THE ANALYSIS OF THE QUESTIONNAIRE ANSWERS

1.- To the purposes of this survey, we consider as personal insurance any insurance related to the human life, either individual or collective, including health insurance (of disease and/or medical assistance and related expenses), of periodical or life annuity, and life and/or death, including burial or funeral expense insurance, even though in some legislations the respective coverage accurately analyzed may be ruled or considered as patrimonial damage insurance (hospitalization and health insurance in particular). We have adopted this general criteria, because the axis of the debate, as we have said before, is focused on the influence of scientific and technological innovations on human beings, on the person, and in the manner in which such innovations may affect people's health, the human life span, their survival and death, which are the main elements to take into account for the characteristic risks of such coverage.

From the philosophical and existential viewpoint, few questions have an absolute degree of certainty. In human life, undoubtedly, death is one of such certainties. However, from a technical viewpoint and the personal insurance principles, such certainty is changed into uncertainty as regards the time when that will happen. This uncertainty generally associated with the economic requirements of the subject itself, its family, the health expenses, or the death of the subject threatened, is what leads people to take out personal insurance. What worries the human being is the risk or the possibility of an early or premature death, or a late death, that is to say, the risk that a certain contingency that affects a person in its life or its death comes as economically untimely. That is the risk that is transferred and accepts a professional insurer in life or death insurance. In health insurance, the worry is focused on counting with the necessary assistance or resources to face up to illness expenses or covered contingency, if it occurs. In life annuity, retirement, or survival insurance, the main worry is to count with the sufficient economic resources during the whole life.

If the technological and scientific innovations allow foreseeing human life extension, rather than death, people's worries will be focused on survival and its economic impact generally connected with the stage of retirement and when the insured is not in the prime of its life to keep on having the same economic income as in the active stage.

From the aforementioned perspective, we see that at present and for the future, in general human being worries are diverse, and that health and survival, rather than death, will be deemed as the primary concern to take out insurance, as in the present context, they pose economic risks that must be anticipated. This first analysis indicates a positive growth of the insurance demand in respect of diverse kinds of personal insurance and a greater coverage development of specific risks. The resources destined to insurance premiums will have to be gradually increased for the high cost of certain medical and pharmacological treatments, for the increase of life expectancy and for the social security and public health system crisis. We also think that public preferences among different options will tend to favour insurers because supposedly the technical, actuarial, economic and legal structure of insurance offers more safety and better answers than those provided for example by retirement funds administrators, pre-paid medical care entities, savings in banking institutions or stock investment in the company owned by the workers in their active stage that were affected by the bankruptcy of their own companies (for example, Enron case and similar). The technical structure of insurance and reinsurance commits more additional resources to face up to the payments or the obligations assumed than the savings of the subject itself, or savings and interest rates, or obligations of other entities that do not have appropriate supervision or soundness.

2.- As a characteristic phenomenon of human development, in almost every field and at every stage of history there have been innovations tending to improve the life quality and comfort, the production of goods and services, their exchange, and the commerce. Think about the wheel invention, the manufacture of overland, sea or air transportation vehicles, the invention of the press, the telephone, the telegraph, the machinism, the medical innovations, the obtention of vaccines, the discovery of penicillin as antibiotic, the X-rays, etc., etc. These brief references show that there always were innovations, but what has changed is the progress speed and the frontiers. In the human evolution, the social, scientific and technological change was so slow that such changes practically went unnoticed during the life of a person. Instead, in the last half century, the innovations in practically every discipline have been vertiginous. We have witnessed and still do new discoveries and innovations, and their commercial use. At the same time, such speed has accelerated the obsolescence terms of some knowledge and applications. Today we speak about knowledge society, technocratic society. The very concept of technology already seems old and we use the words technological innovation as a way of expressing the speed of the changes. What is deemed as new soon is no longer used because a new knowledge or product appears that makes with a highest efficacy the same work than that product or knowledge already considered old. However the obsolescence paradox is that the period that began after the end of World War II has been called of the new science or technology. Besides, the innovations are successively produced. Let us see some examples: In 1962, Drs. Crick and Watnon were awarded the Nobel Prize for their discovery of the DNA molecule. Today the human genome has already been sequenced, first significant step forward of the 21st century.

In 1967, the heart surgeon Christian Barnard made the first successful heart transplant to Louis Waskansky, and 15 years later, in 1982, for the first time an artificial heart was implanted in a human being. The cardiology breakthrough is really stunning.

In 1969 and by TV, the whole world population could watch the Apollo XI landing on the moon and the first moon walk. Elderly people who had travelled in wagons or made long sea voyages were watching the man in the space, walking on the moon satellite and in communication with the earth. The later innovations in communication technology relieves me of making any further comments.

In July 1978, Louise Brown was born. She was the first test tube baby, the first human being product of in vitro fecundation, conceived outside her mother’s womb.

In 1997, the Dolly sheep was born, created by clonation techniques. The innovation in these disciplines is constant and permanent.

Even though the first computers date from 1950, the technological application of the chip in 1980 generated the mass possibility of access to such tool. The facsimile, that is already an almost obsolete means of transmission, became popular in 1988 and in little more than a decade, in 1993, the Internet was born. The telephone communications with small devices that can be used in any part of the world and that among other uses give besides the possibility among other applications to send text messages and take photos, give evidence of the speed of these changes.

In the last decades, the medical technology has progressed in such manner in radio imaging that it is possible to watch the inside of the human body and with the help of computers and robotics, even get into the human body with visual cameras. The nanotechnology gave way to such wonderful combination paradigm of science and technology. Today long distance diagnosis and laser surgery are frequent. Less than half a century ago the medical centres established intensive care units.

We have approached biotechnology in plants, animals and human beings with the ethical and bioethical connotations that it implies.

These few examples show that in less than half a century, the innovations in all the disciplines and fields have been more than significant and amazing. What used to be the fruit of ingenious science fiction novelists, has become today the daily reality.

However, and in parallel with such positive breakthrough, the technological and industrial development is liable to cause disasters that even exceed the frontiers of the countries where such events occur. As an example, the Bhopal accident in 1984 (lethal gas leak incident); the Chernobyl accident on April 26, 1986; diverse ecologic and environmental catastrophes; the global warming; the greenhouse effect; the alteration of ecosystems, and the appearance of viruses, bacteria and diseases that cause mass mortality unknown before, such as the Ebola virus; the SARS infection; the Asian flew; the Hong Kong flew; the bird flew; the HIV virus, and the latent threat of bioterrorism (Sarin gas poisoning, antrax spores, etc.); the non peaceful use of nuclear energy; the medication errors; the mad cow disease, and events caused by man itself, such as terrorism. Lights and shadows of the human being.

In fact, every positive and negative aspect must be assessed in a rational analysis of the effects connected with personal insurance.

The scientific and technological progress has been appropriately defined as a sword with two edges.

Both science and technology walk through different lanes than law. They precede it, that is why there are certain voids in the law as regards new phenomena, and insurance law is certainly no exception to this rule.

Hence the importance to pay due attention to the subjects that we deem significant for out discipline.

The personal insurance technique is based on the calculation of probabilities, on foreseeing the loss rate, so as to calculate a priori the premium of the risk assumed. The consequences of scientific and technological development can change such technical predictions in personal insurance.

3.- The Insurance Law studies, referred for example to environmental matters, pollution, ecological disasters, harmful transgenic products, damages derived from the use of certain medicines or products such as asbestos, have been focused on civil liability insurance for the protection or compensation of such contingencies in respect of those affected, but we consider that this view is only partial as regards the whole insurance activity. For example, the consequences or implications of environmental pollution and the health problems by the appearance or induction of diverse diseases, that even increase the risk of death of persons affected by some previous pathologies, makes us think that a more than significant percentage of the claims settled by insurers of personal insurance for medical, health or disease expenses or for disability or death insurance, actually apply to claims caused by what we euphemistically call development and new technology risks. Furthermore, some injuries or disabilities or deaths occur several years after the event that caused harm to the person, what gives way to asserting that such consequences cause significant expenditures to insurers of personal insurance. VIOXX, an anti-inflammatory drug produced by a well known multinational pharmaceutical company was withdrawn from the markets because it increased the possibility of heart attacks. The people affected, holders of diverse personal insurance policies, are entitled to their insurers' compensation, besides the civil liability actions against the laboratory in question or the compensations that those affected or assignees receive from the insurers of the civil liability risk or from special funds to that purpose. The insurers of personal insurance appear then as victims in respect of an event from a third party, and the party responsible for the damage is exempted from paying for the whole damage caused due to most the impossibility of most legislations to subrogate personal insurance; even though some legislations enable the subrogation for health or disease expenses.

The principles that oriented the insurance legislation created some sort of boundary between the insurance for damages as compensatory or indemnifying, and the personal insurance that was not deemed as compensatory, therefore establishing the principle that subrogation is inapplicable to personal insurance.

Before the new phenomena, is it valid to maintain such principle? In answer to this reality, is it fair to extend the coverage exclusions in personal insurance in respect of events with a catastrophic potential, or to increase the premiums to undertake such risks? Or should we give a step forward and analyze the implications of such doctrinaire principles in the present context and evaluate the possibility of subrogation of personal insurers, in certain cases?

In the present reality, the personal insurance insurer is in an unfavourable position with respect to other subjects and even in respect of other risk insurers. Let us imagine an occupational hazard insurer that covers the workers of an establishment that uses certain inputs. Due to an error of a third party, instead of providing a harmless input it delivers one that is highly toxic and the emanations from this other substance cause serious damages to the workers and even deaths. The occupational hazard insurer will have to satisfy the medical assistance and in specie, the workers' compensation for disability and death and will be legally subrogated to claim what is has paid from the responsible party. If the worker that died was also covered by death insurance, the insurer that pays the beneficiaries would not have such possibility of subrogation. It is evident that the worker's assignees are also entitled to legal action against those responsible for the event. The doctrine sustains that if personal insurance subrogation were permitted the notion of cumulus might be affected. But we think that such would not be the case, as the personal insurer must also be considered as a victim since the damage caused by whoever was responsible affected many victims and the damage caused to the personal insurer is having to pay the compensations caused by a third party's action that it would not have had to pay if that third party had not caused the action. This is not a minor matter that we are proposing for debate and study and we are aware of its impact on the quotes and its incidence in respect of other risk coverage, but it is precisely because of that we are calling for debate.

4.- The scientific and technologic innovations made possible and still make possible the human life extension. The oldest person - 117 years old – has recently passed away. Scientists are analyzing in animal models the manner to decelerate the ageing process. In 1970, 7% of the Japanese were older than 65, but at the end of the 20th century, that percentage had raised to 17.3%. It is expected that in 2050, one out of 3 Japanese will be older than 65. The average life expectancy has noticeably increased. Twenty years back, in 1986, one million Spaniards were older than 80 but today, that figure has doubled. At the beginning of the 19th century the world population had reached 1000 million people; in 1930, 2000 millions. In 1961, it got to 3000 million. In little more than one decade, the world population reached 4000 million inhabitants and presently, there are 6500 million people in the world. The increase of the world population is not homogeneous in all continents. In the more developed countries, the birth rate has decreased due to cultural and socio-economic changes, what brings and will bring consequences to the financing of social expenses related to pensions and medical expenses. The funding rate of public social security systems has been changed as well as the payment terms of life annuities. Longevity, the need for economic assistance of the elderly, will undoubtedly affect the diverse personal insurance coverage. Survival and its socio-economic effects are and will be the analysis perspective of insurers for personal insurance coverage. The scientific and technological innovations do not increase the number of workstations. The machinery replaces man in the productive processes. Nowadays, it is more difficult for people over 40 to find a job as in general, for working purposes, they are considered "old". The human life span has extended but as work is concerned, people become "old" earlier. Conceptually speaking, the transit from the active to the passive stage was known as third age. Today, new and different stages or age categories are being created. Public health expenses and benefits for the retired are being cut, certain barriers are established for the access to health insurance based on chronological age, and it is not possible to continue expanding the age limit to receive the benefits of retirement. Such combination of elements, contradictory with each other, will undoubtedly bring social consequences if no solutions are found adapted to the various economic and social contexts and different from those that were characteristic in a good part of the 20th century. The diverse realities of the various countries and continents will possibly determine the different manners to deal with this problem, but sooner than later, almost every country and continent will be confronted with the same phenomena.

As regards the provision of personal insurance, certain factors will have to be assessed regarding retirement rents such as the possible profitability of insurers' investments in the long term, the inflation effects on the rents committed, and the contract currency in case of payments in a currency other than the country's, so as to avoid that the economic policy changes regarding the exchange rate may frustrate the performance of the contract obligations. Is the currency committed included in a contract clause? The recent experience that our country went through takes us to consider such questioning. There are two concepts to be distinguished within the present context, the life expectancy strictly speaking, from the healthy life expectancy which at the same time involves independence and autonomy. The current limits of active working life to apply for retirement, depending on countries and sexes, are generally between 60 and 65 years of age. For certain activities that age is even less. Nowadays, a person of that age is usually in a good physical condition, active and lucid. It is not the same a 60 or 65 year old person today, as one who had arrived at that age in the first half of the 20th century. Medicine in general and gerontology in particular use their best efforts so that elderly people may enjoy their life instead of suffering it. In some countries such as Spain, a law for the Protection of Personal Autonomy and Assistance of dependent people has been passed, that even though it does not specifically provide that it must be applied to retired or older people, we must take into account that 80% of the dependent people are older than 65. Although this is a social security norm, nothing prevents that this coverage may be structured as a private life or health insurance plan as it deals with the assistance required so that the insured can make one or several of the basic life activities.

The life annuity coverage, the health and illness insurance that extends the coverage to attend the phenomena characteristic of old age, will surely produce an increasing demand. The insurers must structure technical plans that take these new requirements into account. It is well known that health expenditures increase with the passing of time, but the unsatisfied demand due to the deficiencies of the social security public systems offer a potential market for private insurance coverage that is certainly not insignificant.

Life expectancy, demography, change of habits, social changes regarding the age to conceive the first child, decrease of the birth rate in developed countries, longevity, medical and social treatment, unemployment, are not matters that can be separately analyzed, but necessarily together since they are related to each other. That is why such matters affect personal insurance.

5.- These changes and innovations have even brought new ways of conception and fertilization.

As regards extrauterine fertilization, woman’s ovulation is pharmacologically increased in order to obtain more embryos thus increasing the possibilities of success. Certain embryos are selected and three or four implanted, discarding or freezing the rest. This technique poses the problem of the possibility of conception outside the mother's womb and even renting the womb for an implant. Diverse legal, philosophical and religious norms are affected by these techniques that are also matter of debate at a bioethics level. The legal regulations of comparative law that clearly establish the limits of medical science innovations as regards morale and ethics are not precise. With regard to such limits, similar problems are verified in the study field of embryonic mother cells and their use in regenerative medicine

The very meaning of conception and death, pose today some dilemmas unknown before and these questions, that in principle seem alien to personal insurance, in fact they are not, since they affect for example the concept of beneficiaries in life insurance for the case of death, supposing that the specific beneficiary of the capital or the rent to be paid had not been specified in the policy, and that the institution of the beneficiary mentioned the children conceived. The legal debates in respect of conception – even outside the mother's womb – affect our discipline.

Today it is possible to father children even after a person is dead. Which is today the biological boundary of motherhood and which its effects on the calculation of life annuity insurance?

With regard to the exact risk determination, have the questionnaires been updated according to the medical scientific innovations in the cure of diseases? Are those diseases that used to worry the insurers the same that today must be considered from the viewpoint of the equivalence of premium and risk, in times when most organs can be transplanted and when there are even multiple transplants? Are pharmacological innovations taken into account when the rates are fixed? In death insurance, shall we have to think that today major surgery sometimes decreases instead of increasing the risk? The chances of being affected by a serious disease and overcome it can be even greater than the chances of dying.

The changes generate new questions. Yesterday's approaches today may be outdated.

6.- The new scientific and technological innovations can be risky for health.

The cellular phones, the systems of data transmission that enable the Internet access through fixed wireless systems have brought to the cities a great dispersion of radio communication antennas that emit ionizing radiations. The human being can absorb without any health risks certain energy values or rates, but if such values are exceeded there is no absolute guarantee that its health may not be affected. The effect of electromagnetic fields on health and life is not a minor subject. In the same way, certain supplies which still have an industrial use in print ink, carbon paper, plasticizers such as the polychloride biphenyl (PCBS) and also in energy transformers generate health risks as they are probably cancer agents, and, therefore its consequent prohibition in several countries.

At the same time, the technology produces waste and residues that cause pollution and are health damaging. The disposal of radioactive and non radioactive waste and the safety of their final destination is no minor subject either. That is why environmentalists and some countries are so worried about it.

The feedstuff for the bovine cattle and other species has caused diseases unknown before. Certain effects of transgenic food have not been properly evaluated yet.

If, because the results are ignored, the technological innovations cause diseases or in the long term affect people's health and lives, such consequences will have a negative effect for the personal insurers.

7.- In this changing world we must even ask ourselves if the exacerbated competition or work can bring disease or even death. And we are not just referring to the physical efforts related to the work activity, but to phenomena such as stress and/or deep psychological disturbance caused by factors intrinsic or extrinsic to the work itself.

8.- Man tries to dominate nature, to change it. It produces geographical changes, global warmth when it releases carbon dioxide into the atmosphere, the so called greenhouse effect, and nature reacts. It is not risky to assume that what we have denominated natural catastrophes may in fact have been the product of human action upon nature. Typhoon, tornados, hurricanes, floods, tsunamis, droughts that besides produce fires, heat waves or cold spells are the usual and recurring currency. The logic answers to reduce such phenomena do not seem to please the highly developed countries. The damages not only cause economic losses but, what is worse, the loss of human lives in an increasing number, what also affects the personal insurance coverage.

9.- The present world appears as unequal. The asymmetries between developed countries and the others seem to be increasing instead of decreasing. The intellectual rights, the patents and the economic use of the scientific and technological innovations belong to developed countries or to multinational companies the parent house of which is precisely located in such countries. It is not true then that scientific knowledge is the patrimony of the whole humanity. What is more, even in developed countries, the scientific and technological innovations cannot be used in symmetric terms. The social strata of a higher purchasing power can have access, uses and enjoys scientific and technological innovations that not anyone can reach. The progress and the possibility to use it and enjoy it illustrate distributive distortions. The impressive medical and pharmacological advance is not in keeping with the reality of deaths for starvation, malnutrition, tuberculosis, cholera, etc., easily avoidable diseases if wealth distribution was different, if low cost medicines were available, and there were food and drinkable water all over the world. Even in the 21st century, in some places of the earth the life expectancy does not even reach 50 years of age. The cell phones communications, the use of computers or the Internet are not possible in territories where they do not even have electric power or the means of support for a numerous family hardly gets to one dollar a day.

The remarkable progress will produce concrete benefits for less than one quarter of the whole world population. As a wish, let us hope that they get to an infinitely greater number, to every continent and region and that the inhabitants have economic resources to take out personal insurance. This is not a matter of statistics, but of human beings and life itself.

10.- As regards the world insurance sales, and pursuant to SIGMA's report 2/2005 published in the magazine specialized in Insurance Law of our country, *Mercado Asegurador* in its 307 issue of September 2005, pages 98/104 that reproduce the work done by Swiss Re on life and no-life insurance throughout the world in 2004, we can point out that the world insurance premiums amounted to US$ 3,244,000 millions in 2004. Out of those premiums, US$ 1,849,000 millions applied to life insurance, and US$ 1,395,000 millions, to no-life insurance – setting aside that some personal insurance coverage is not counted as life insurance. These figures show the importance of personal insurance in respect of other areas. There are dissimilar distributions in the world regarding the predominance of life insurance over other areas. Following the grouping of the mentioned report, the United States and Canada had premiums sold for US$ 524,327 millions in life insurance, and US$ 643,249 millions in no life-insurance, that respectively represent the 28.36% and 46.10% of the world market. This trend can also be verified in Latin America, the Caribbean and Oceania, as regards the greater premium volume of no-life insurance in respect of life insurance. In Latin America and the Caribbean, life insurance premiums reached US$ 20,201 millions which represent 1.05% of the world premiums, and US$ 29,121 millions in no-life insurance, 2.09%. In Oceania, US$ 27,034 millions in life insurance, and US$ 28,144 millions in other risks; 1.46% and 2.02% respectively.

In Asia, instead, there is a marked difference in favour of life insurance; US$ 556,321 millions, 30.09% of the total, and in other risks, US$ 179,215 millions, 12.88% of the total. With less difference than in Asia, Europe registered life insurance premiums for US$ 694,563 millions, 37.57% of the total, and in no-life insurance, US$ 503,621 millions, 36.10% of the total, and Africa US$ 26,241 millions in life insurance, 1.42% of the total, and US$ 11,368 millions, 0.81% of the total in respect of no-life insurance.

If we individually considered by countries the live insurance participation, only six countries individually exceed 4% of the world market quota. Those are the United States, US$ 494,818 millions, 26.77%; Japan, US$ 386,839 millions, 20.93%; Great Britain, US$ 189,591 millions, 10.25%; France, US$ 128,813 millions, 6.97% of the total; Germany, US$ 84,535 millions, 4.57% and Italy, US$ 82,083 millions, 4.44 of the total In all, six (6) countries concentrate 73.94% of the life insurance production.

As regards the countries where the internal life insurance production exceeds 1% of the world production, these are: South Korea, 2.63%; China, 1.92%; Taiwan, 1.83%; Holland, 1.70%; Canada, 1.60%; Australia, 1.39%; South Africa, 1.32%; Belgium, 1.30%; Switzerland, 1.30%; Spain, 1.28%, and Ireland, 1.03%. Thus, these 11 countries add up to 17.30%, which means that 17 countries represent 91.24% of life insurance total premiums.

In Latin America and the Caribbean, Brazil with US$ 8,199 millions that represent 0.44% of the world premiums, is the country with more premiums. Putting together Latin American and the Caribbean - US$ 20,201 millions of life insurance world premiums – it does not even reach the premiums of Spain alone, US$ 23,592 millions.

The four countries more important in the production of life insurance in Latin America (Brazil, Mexico, Chile and Argentina) together represent 0.93% of the world premiums, comparable to India's.

Our country, Argentina, with a life insurance production of US$ 1,345 millions, 0.07% of the total (figures that have suffered a significant drop in the United States currency after abandoning the convertibility and the alteration of the exchange rate 1$ = 1US$ in November 2001, 3$ = 1US$ in 2004), is placed in the 39th place in the world ranking of life insurance premiums, below Indonesia, 38th and above New Zealand, in the 40th place.

As regards premiums per capita in life insurance, Switzerland has a marked supremacy, US$ 3,275.1; Great Britain, US$ 3,190; Japan, US$ 3,044, in respect of other countries. There are 10 European countries that individually considered exceed in this indicator the value per capita of the United States, US$ 1,692.50. In Asia, five (5) countries exceed the US$ 1,000 per capita in life insurance premiums. In Oceania, Australia's premiums amount to US$ 1,285.10. In the production of life insurance per capita, South Africa has the leadership in Africa with US$ 545.50 per capita premiums in dollars and in Latin America and the Caribbean, Trinidad and Tobago with US$ 484.50. In Argentina, the life insurance premium value per capita is US$ 34.50.

As regards life insurance premiums taken as a GIP percentage, the most important indicator is South Africa's with 11.43% followed by Taiwan, 11.06%, Great Britain, 8.92%, Japan, 8.26%. In the United States, this relationship is of 4.22%, similar value to Australia's, with 4.17%. In Latin America and the Caribbean, Trinidad and Tobago has the leadership with 5.77%. 10 European countries exceed the United States. In Argentina, such percentage is 0.88% and in Brazil, 1.36%.

As regards the GIP, the United States has a clear leadership with US$ 11,735 billons followed by Japan, with US$ 4,683 billions. With regard to the data of the world population, China has 1,297.2 million inhabitants and India 1,079.5 millions, the Unites States, 292.4 millions and Russia 143 millions. Gathered in groups by continents, the world population consisted of 6,342.1 million people. Only in Asia there are 3,779.2 million people, more than 50% of the human population, in Africa 866.3 millions, in Europe 798.2 millions, in Latin America and the Caribbean 542.4 millions, in the United States and Canada 324.3 millions, and in Oceania 31.8 millions.

The ratio of the different indicators shows us that the world is round but not homogeneous, and therefore any conclusion that we may try to transpolate to other regions, other cultures, other beliefs which are different, may imply errors due to the diversity. We are not exponents of sole thinking. Therefore we shall now analyze the answers to the questionnaire of the diverse national sections, reflecting the answers received, that will let us have a full view of the topics of interest of our general report.

FIRST PART

CONSIDERATIONS ON THE QUESTIONNAIRE

We shall now examine the answers given to the questionnaire following the questions' order, mentioning once more the commendable job done by all the countries by the depth of the reports what clearly denotes that the subject has been approached in a multidisciplinary manner, with the contribution not only of cybernetics but of related sciences as well.

The task we had to tackle has not been easy. We have endeavoured our best efforts to present to you a comparative study as exhaustive as possible, based on entirely different legislations with dissimilar legal structures. Therefore, *ab initio*, we apologize for any wrong interpretations that we might have incurred into, and I am not only referring to the narrators of this report but also to its translators.

The countries that have given answer to the questionnaire are the following: Germany, Spain, Italy, Hungary, Switzerland, Portugal, France, Belgium, Greece, Denmark, Australia, South Africa, Japan, Indonesia, Brazil, Colombia, Chile, Ecuador, El Salvador, Paraguay, Uruguay and Argentina. We shall now provide a synthesis of the answers given and our own conclusions, preceded in order by the respective questions. We must point out that when the answers were similar, we have joined them in groups.

Introduction.

1.- As soon as we get into the analysis of the problem submitted in the questionnaire, the great significance of the matter can be easily noticed as the degree of penetration of the electronic commerce can be appreciated in the whole world. When we analyze the reform of the basic legislation applicable to insurance contracts that is taking place in many countries, especially in the developed nations, due to the technological and scientific innovations, we must applaud AIDA's decision to bring the subject to the World Conference. As we could see, such innovations have caused a deep revolution in every discipline of the human activity, in particular, in the international finances and economic relationships and, consequently, in the insurance sector.

2.- The unprecedented phenomenon represented by e-commerce and its impact on insurance, inexorably lead, as "Swiss Re" predicted, to the "urgent need of adaptation and the opportunity of renovation" ("Sigma", No. 5/2000).

A report dating from 5 years back, pointed out that "the Internet has turned from a mere means of information and communication to one of the most important ways of distribution. It enables to reach a great number of people in a never imagined way and, at the same time, make available valuable customized information…Even though at the beginning, the aim was to sell products to the final consumers *(business-to-consumer),* now it is the relationship with the commercial customers *(business-to-business)* that has gradually become more important… However, the Internet technology not only has an impact on distribution, but also affects all the commercial processes. The more the production process depends from the information preparation, the greater the change potential".

And the more widespread the Internet becomes, the greater the companies' savings will be and, what is of our particular concern, the insurers' savings. It has been estimated that the e-commerce development shall bring to United States personal insurers a substantial reduction of their expenses of claim distribution, administration, liquidation and settlements (calculated in 12% of the present expenses).

Sigma's report of those days, rightly mentioned that it will substantially change the insurance marketing as "the e-business reduces the barriers of access to the market and intensifies the competition" therefore, naturally and due to reality pressure as a result of a drop in the costs of information, an alteration in the participation of the traditional distribution channels shall occur.

3.- That trend is appreciated with the "bank-assurance" development - as the Peruvian jurist Walter Villa Zapata pointed out in 1998 - because financial entities use their trademark to extend the range of services that they offer with insurance products. Sigma then concludes that, in view of the Internet development by new operators, the traditional insurers will have to adapt their commercial mechanisms to the new demands as regards efficacy, speed and quality of the service.

4.- However, the greater use of the Internet will not equally affect all the insurance sectors. The e-commerce development may cause a substantial impact on standarized insurance but "when it comes to products where advice plays an important role and where it is not easy to compare services and prices, the traditional insurance brokers will make use of the electronic business and will offer services of financial management and risk advice to a greater extent. That would happen mainly with certain life insurance products, social security, comprehensive insurance and the assistance to business or corporate clients.

5.- As specific insurance is concerned, there are certain factors that make difficult the online distribution. The complexity of certain products was also mentioned, such as life insurance with fiscal advantages which are not easy to automate. It is also difficult to standarize another fundamental aspect of the activity, such as the settlement of claims. On the other hand, and this is a difficulty that we find reflected in various European countries reports, many operators are not yet convinced of the Internet safety, what prevents the realization of complex coverage and the remission of confidential data through the web, except the use of the digital signature and the encryption.

Sigma has well said that the greater the level of advice demanded by some coverage, the smaller the chance to resort to the Internet. And specifically analyzing the type of products, it can be deduced that although the life insurance with saving, the health insurance and other commercial insurance are not necessarily apt for online distribution (or selling), however the Internet favours the quality and service through the web. “That is because modern communication technology enables more customized products in shorter times of response, more coverage flexibility and a better risk management support".

6.- Anyway, it is evident that nowadays in a great part of the world, insurers have their own website with standarized portals of insurance products and financial services, with access to their sale channels, thus encouraging a greater transparency and the community approach to the insurance institution. The electronic intercommunication with the clients enables their direct influence during the policy validity, allowing them to request information and bring about changes to the coverage originally taken out.

7.- The reports that were submitted by AIDA’s different national sections ratify the use of the Internet for a great part of the insurance operation, what can be appreciated in the taking out of coverage, payment of premiums, claims, and the possibility offered to the insured to follow the process of its settlement by a 24 hours access to the insurer’s website. The Internet development also allows the insurer to subcontract certain aspects of its operation.

The “Swess Re” report (unfortunately not updated) explained five years ago that the electronic business reduces the barriers of the market access as it allows obtaining information more rapidly and easily and, as it increases the transparency, it leads to enhancing the competition and the tendency to low prices. In that way, it is increasingly more difficult to transfer the relatively higher costs of traditional distribution to the prices. The experience gathered by Sigma allowed concluding that in Germany and Great Britain the direct insurers through the Internet have obtained cost advantages in respect of their traditional competitors.

8.- An innovative subscription process is even being considered: certain range of potential clients (generally companies) try to place risks by themselves using the Internet. This is what is called “inverse auction” especially fit to cover great industrial risks and it allows these potential corporate clients to choose the most convenient offer.

9.- Moreover, the technology innovations – despite the viruses, hackers and spam – are simply overwhelming and the operator that does not adapt its structure will run the risk of being left behind.

10.- However, we must point out that the e-commerce irruption poses some problems. The executive board of the Inter American Federation of Insurance Companies (FIDES, for its Spanish acronym) at their meeting in Miami in March 2001, made clear their true concern "because the Internet goes over the national legislation and the local authorities are unable to control this phenomenon”. Therefore, they appealed to the fiscal authority responsibility to prevent the infringement of the local fiscal norms of each country through the Internet (with quote of Instruction 2000/31/CB of the European Parliament).

11.- These warnings give us a clue as to the absolute necessity of looking for the rapid adaptation of the legal frame of the contracts involved – especially insurance – in the different countries. Because e-commerce is uncontrollable, and therefore as jurists, we have the great challenge – and that is why we are in this Conference today – to give shape to the legal norms so that they may provide sufficient support to the electronic contracts, because it is evident that reality is knocking at the door and has gone beyond the limits in such a way that very soon, the old norms included in the traditional codes will only serve to be restricted by schemes completely superseded. Then we must honour this challenge that, all in all, is the fundamental job of the men of law: grasp the reality so that it may be reflected on the legal norms and provide the community with a solid legal system capable of conceiving institutions suitable to face up to the great challenge imposed on us by the technological innovations.

12.- Finally, we must make a general comment regarding the reports submitted to this Conference by the different national sections, especially from developed countries. We have noticed that in order to make the subject more understandable and enlighten us about this formidable matter, a thorough analysis was made on electronic intercommunication, the Internet, the data protection, the cryptographic mechanism, the required keys to ensure authenticity, the digital certificates, the regulation of certifiers (that might be assimilated to the notarial profession that we know) that relate the signature data to its owner and give faith that such data are correct, etc., etc. Surely due to the manner in which the questionnaire was designed, certain considerations were made of technical-electronic nature that would be more relevant in a conference of IT specialists than in a law conference. Such contributions are certainly most welcome as they help us understand all the aspects of the technological electronic sophistication that, since we are no experts, we shall try to summarize in this report without loosing sight of our ultimate objective that refers to the impact made by such technological and scientific innovations on the legal insurance industry, in particular on personal insurance.

a1. In your country, is it possible to take out insurance through the Internet? If positive: How is it regulated?

We shall firstly examine the matter within the Old Continent. European countries, product of the integration established by the Treaty of Rome, must abide by the European Union norms, in particular, by the Electronic Commerce Directive *("The E-Commerce Directive")* of the year 2000, even when to this date, not all of them have adopted it, and some of them even though they received it, incorporated it to their legislation with certain differences because they wanted to maintain their own legal principles. Moreover, in some nations like Germany, the general norms of the community Directive are not applicable to insurance contracts.

But in other countries (i.e Spain), influenced by later directives of the Community, such as No. 2002/65/EC on marketing of financial services destined to consumers, specific norms dealing with the regulation of insurance contracts were introduced to enable electronic contracting. Consequently, the Spanish answer on this item, with quote of the amendment of Law 30/95 (Law of Regulation and Supervision of Private Insurance – LCS, for its Spanish acronym) is positive as regards the possibility of taking out insurance through the Internet.

In Italy, Hungary, Portugal, Denmark, France and Belgium, it is possible to take out insurance through the Internet, even though insurance companies will have to respect the European Union system of service provision that, among other requisites, includes notifying the competent authorities of the country where the risks to be covered are. Some of the answers expressed that even though it is possible to take out insurance through the

Internet, few are the companies that offer the possibility to conclude insurance through their websites and that not any type of coverage can be offered by this means.

In Switzerland, by the Consumer Rights influence, a law that will become effective at the beginning of 2007, provides the insurer's obligation to inform the client - before entering into a contract - about the insurance terms, the risks insured, the period of validity, the premium to be paid, the methods and bases for the calculation and distribution of the Surplus (supplement) and the manner in which the personal data will be handled.

As we have seen, in Belgium it is possible to take out insurance through the Internet, even though there is no obligation to execute the contract through that means. The Belgian law - that according to the editors of the report for this Conference - is almost a reproduction of the European Union Directive on e-commerce - provides as other legislations, the following principles for electronic contracting:

1. Obligation of previous information to the consumer;

2. Application of the principle of "functional equivalence" between the written form and the electronic form, according to the model law of UNCITRAL (United Nations Commission of International Trade Law) on Electronic Commerce (Resolution 51/162 of 1996 of the UN Meeting).

3. Assimilation and equality between the electronic and the real spheres, provided that in the first certain requirements be respected that involve the safety and reliability of the complete and unchanged data remission.

4. Technological neutrality, what implies that no technique of electronic communication can be excluded.

5. Responsibility of the electronic service supplier.

Furthermore: Accompanying this norm, Belgium has reformed its Civil Code providing norms to regulate what they call "previous information", the electronic signature, the manner of notification in the so called "off-site contracts" by the Internet, and the legal framework for the certifying authority. A law of the year 2000 introduces criminal penalties for cases of fraud, violation of the confidentiality, integrity and availability of the computer systems. The right of rejection is applicable in Belgium (30 days for life insurance and 14 days for the other).

Let us now examine how the matter has been dealt with in other latitudes. In Australia, it is possible to enter into contracts through the Internet, manner that is being used for mass standard risks: private cars, houses and other minor patrimonial insurance. Both the federal government and the state governments apply this industry regulation in their jurisdictions.

In South Africa, it is also possible to take out insurance through the Internet, what is regulated by a specific law No. 25/02 of Electronic Communications and Transactions, and Law 37/02 of Financial Consultancy and Intermediate Services.

Japan allows these contracts through the Internet even though there are no specific regulations. In any case, the authority must control that there is sufficient protection of the personal information.

In Indonesia it is not possible to take out insurance by electronic means. Its legislation continues demanding the written signature of the contract.

Latin America. In Brazil it is possible to take out insurance through the Internet even though there is no specific legislation yet. Colombia has sanctioned its e-commerce law No. 527/99, allowing since then to enter into insurance contracts by electronic means, with the same legal validity as if they were done in writing.

Special mention must be made about Chile, where its law provides that the insurance contract is solemn, what implies its formalization in writing. Therefore, the editors of the report for this Conference have expressed their doubts as to the full validity of a contract entered into through the Internet. But there are no objections if it is a contract entered into through this means using the electronic signature system, coming from an authorized certifier that verifies the private key endowed with absolute technological neutrality.

In the exhaustive report of the matter dealt with in CILA (Ibero American Committee of AIDA) Conference held in Rosario (Argentina) in 2001, Chile clearly pointed out that “the electronic commerce law is not “tied” to any form of electronic communication” setting aside that “the electronic support of a vitiated statement does not produce its validation”.

Chile has explained in detail the norms of its law of 2002 that distinguishes – such as other legislations – two types of electronic signatures: a) what it calls the simple electronic signature, and b) the advanced electronic signature. The first is defined as any electronic sound, symbol or process that allows the receiver of an electronic document to identify the author, at least formally. The second applies to that signature certified by an authorized provider that has been conceived using means that the owner keeps under its control, what allows the detection of a later modification, the verification of the identity preventing that the document integrity be disowned. In this way, Chile’s law 19799/02 provides that “the acts and contracts granted or entered into by natural or artificial persons subscribed by means of an electronic signature shall be valid in the same way and shall produce the same effects as those made in writing with a paper support”.

Ecuador has pointed out that although there are no specific regulations to take out insurance through the Internet in that country, the Act of Electronic Commerce accepts however that any type of contracts may be entered into by this means as long as the electronic signature requirements be satisfied to grant them full legal validity.

El Salvador, Paraguay and Uruguay have informed that in the legal context in force in those countries, no safe contracts can be entered into through the Internet. In Argentina, even though that might be possible, contracts however are yet not concluded by that means.

a2. Is the insured party’s consent admitted by electronic means?

This question, that is a direct consequence of the previous one, has also “divided the waters”. In almost every European country it has been positively answered, what means that the insured party’s consent is admissible by electronic means, with different nuances that we shall point out in each case.

Germany has stated that the clients express their consent accepting the offer – with due detail – in the insurer’s website. On the other hand, the Insurance Contract Law of Spain, that must be complemented by the “Law of Services of the Information and Electronic Commerce Society” (LSSI and CE) No. 34/2002, establish the principle that “*The contracts taken out through electronic means shall produce the effects provided by the legal norms when there is mutual consent and the other requirements for its validity*”. In that sense, Italy has confirms the admissibility of the consent expressed by electronic means, mentioning the Community Directive 2000/31/EC that defines “the electronic contract as that in which its phases, including the final expression of consent, are developed by electronic means”.

Portugal complements its positive adherence pointing out that it is possible provided that the respective contracts be registered in a lasting format to allow an easy future access and its reproduction without amendments.

France has responded that the electronic forms cannot be imposed onto the consumer, so its consent is necessary.

Belgium also admits the consent by electronic means stressing the insurer’s obligation to provide the client with previous and detailed information about the contract terms.

Going to other spots of the planet, Australia has no legal impediment to receive the consent through the Internet, even though the electronic signature and public and private key mechanisms have not been set in the insurance market.

In South Africa the consent by electronic means is also accepted, such as in Japan.

But Indonesia states that it is not possible to admit the consent by this way because in that country a law admitting the electronic signature has not been enacted yet.

Latin America: Brazil has positively answered the question, provided that the digital signature norm of the Superintendency of Private Insurance (SUSEP, for its Spanish acronym) is respected.

In Colombia the consent by electronic means is admitted. It makes clear in its answer that the insurance contract is consensual, but that does not affect the insurer’s obligation to deliver the policy in writing.

Ecuador has expressed that in its country the insurance contract is solemn, therefore a physical written document must necessarily exist.

Finally, in El Salvador, Paraguay and Uruguay the consent by electronic means is not admitted.

There are other important aspects that have deserved the analysts’ attention. One of them consists of determining the moment in which the consent is deemed as perfected, question exhaustively dealt with by Chile in the official report submitted in CILA VII Conference held in Rosario (Argentina) in 2001. Such presentation, brilliantly exposed by Professor

Osvaldo Contreras Strauch, was based on the premise that it is important to determine that moment since it defines the start of the parties' obligations and the calculation of the actions' prescriptions. Besides, the place where the consent was given should be specified in order to establish the court jurisdiction in case of a contract default and the applicable law for any conflict resolution. The main statement is that the electronic contract is generally perfected as any simple contract, through the consent of the parties expressed by the offer submission and its acceptance. Chile's official report includes the two main doctrines of the universal legislation on that matter: the doctrine of the expression of will and its derivation, the doctrine of expedition, and the doctrine of knowledge, with its derivation, the doctrine of reception. Explaining these doctrines, it describes the theory of knowledge as "that in which the consent is formed when each party knows the other's will, fact that occurs when the proposer takes knowledge of the acceptance of the person to whom it addressed its proposal". The theory of reception, "expects not to leave at the proposer's discretion the determination of the moment when the consent is formed but rather considers that it is the moment when the proposer receives the response letter". In the subject under analysis, the electronic contracting on which our interest is focused tends to consider applicable the theory of reception. Therefore, with the support of UNCITRAL Model Law of Electronic Commerce, it concludes that *"the consent is deemed to be formed at the place of reception of the message with the data containing the acceptance, or to express it more clearly, in the place where the addressee is settled"* (Minutes of CILA VI Conference, Rosario 2001, Official Report: "The risks derived from the electronic commerce and the use of the Internet and its safety", submitted by Chile).

a3. Is it possible to make claims by electronic means?

Making claims by electronic means has become quite usual in the world, under certain conditions. In Spain, for example the LCS (Law of Regulation and Supervision of Private Insurance) provides that electronic communications must guarantee the integrity of the message, its authenticity and lack of alteration, using mechanisms that certify the date of remission and reception and its conservation and possibility of reproduction. With these requirements, it is possible to make claims by electronic means.

Such form of communication is allowed in Italy, Hungary, Switzerland, Portugal, France, Belgium, Denmark, Australia and South Africa. From the answer to the questionnaire, we gathered that in Japan it is also allowed to make claims by electronic means, even though it is stated that such claim will have to be confirmed in writing. Indonesia's reply is similar.

<u>Latin America.</u> Brazil, Colombia and Chile allow making claims by electronic means. Chile reasonably adds in its answer that if the claim is made through the Internet without using the electronic signature system, in case of any controversy about the claim reception, the insured party will have to prove that it was made in due time.

Even though in Ecuador there are no specific regulations on the matter, a claim can be made electronically but the insured party will also have to make it in writing. Paraguay and Uruguay gave a similar answer. In El Salvador it is not possible to make any claims through the Internet.

In Argentina, in principle, the general contractual legislation and insurance's in particular, does not demand a certain form of making claims. However, there are norms of the controlling authority that provide the written form of the claims. Some insurers have an automatic telephone system to receive claims which after recording the message, gives the number of the claim registration. The same can be done by facsimile or electronic mail (not digital). All these cases are not safe enough as the claim can be rejected by the issuer, altered by anyone or else its reception be denied. Hence, the absolute convenience to formalize it in writing.

a4. Is the computerized document considered a public or a private instrument?

The answers to this question denote that in most countries the computerized document is a private document. (Germany, Italy, France, Belgium, Denmark, Greece, Australia, South Africa and Indonesia, and in Latin America Brazil, Chile, El Salvador, Paraguay, Uruguay and Argentina). In Colombia it is held that the document can be either public or private depending on its origin (that is to say, if it was issued by a public official exercising its faculties, the instrument is public). In our opinion, the very fact that it is computerized does not make it a public document.

a5. Does your country legislation provide norms of protection of personal data *(habeas data)* object of electronic processing?

The verification of the answers to this question shows that in most countries there are norms of protection of the personal data electronically processed, adding in some cases that any violation constitutes a crime.

In Germany there is a specific law and the Law of Telecommunications and the Law of Signatures that deal with this matter. In Spain it is expressly provided by the Organic Law No. 15/99.

Italy has regulated this issue in a very casuistic manner, providing that the treatment of personal data electronically processed is allowed, only adopting the following measures: computer authentication; description of authentication credentials; guarantee of the transmission safety; periodic update of the dominion identification; protection of the electronic instruments and data to avoid illegal treatments or not allowed access.

Portugal has enacted specific laws of Computer Crimes for the violation of personal data confidentiality. Denmark and Greece have informed that their legislation includes specific norms for the protection of personal data in the electronic system of data processing, in full agreement with the European Community regulations.

In Belgium, the matter has been considered by special legislation in the so called “Privacy Law” of the year 1992 (amended by law of 1998), which in accordance with the European Directive 95/46/EC provides a series of obligations for the data processing. Only under exceptional circumstances, the processing of the following personal data is forbidden: 1. those revealing the racial or ethnic origin, political opinions, religious or philosophical beliefs, or related to the sexual life; ll. data related to legal evidence, criminal offence and safety measures; and lll. data on personal health. In that sense, those processing personal data must give full protection to the information, having to inform the interested party of its right of timely access and rectification. Also the receivers of these data will have to be identified.

In Australia, the matter is regulated by the Federal Law of Privacy that is addressed to the federal and state governments and the private sector, insurance among them. Some state norms ban the electronic connection of databases that contain health information and identify people among the insurers without their express consent. The whole Australian legal scheme is addressed to companies of the private sector, health service providers and the governmental agencies of the Commonwealth and the ACT (Australian Capital Territory). A Code of Conduct on Credit Information has been passed. In Australia, the data of fiscal and social security files are under the supervision of the Federal Commissioner.

South Africa has also norms for the protection of personal data used in electronic processing provided in ETCA (Electronics Communications and Transactions Act), in FAISA (Financial Advisory and Intermediary Service Act) and FICA (Financial Intelligence Centre Act) enacted to fight against laundering. These norms were enacted in 2002 and include regulations for the cryptography service providers and services and products for data protection, the regulation of authentication services, norms on the protection of personal information and sensitive databases. With regard to the matter being dealt with, the data controller (or compiler) can only gather, process, compare or publish that information that was authorized, unless otherwise stated by law. As an exception, the extraction of data with exclusively statistical purposes is allowed provided that they cannot be connected with a specific person.

<u>Latin America.</u> We start with Brazil that has established in the Federal Constitution the protection of people’s privacy, banning the access to personal databases of anyone who is not duly authorized. Colombia’s Constitution consecrates the habeas data right, establishing that anyone has the right to know and rectify the information contained in databases of public and private entities. Although no specific law on the matter has been enacted yet, however the Constitutional Supreme Court has acknowledged that right, adding that “…if a debtor information is truthful – that is to say, real and complete – it cannot be argued that supplying it to those who have a legitimate interest in knowing it, harms the debtor’s good name”.

Chile also has its Law of Private Life Protection providing a special treatment to protect the databases with an emphasis in the protection of “sensitive data” referred to the people’s physical or moral characteristics and the circumstances of their private life or intimacy, expressly providing the action called *“habeas data”* to make up for the diffusion.

In Ecuador, the specific legislation provides that the use of personal data always requires the owner’s authorization and that the databases must keep the confidentiality and intimacy.

In El Salvador, the protection of private communications, even those made with computer support, is considered by its Constitution and by the criminal legislation.

In Argentina, section 43 of the National Constitution, according to its 1994 amendment, has established that any person may file a *habeas data* action or legal protection proceedings *"to take knowledge of the data referred to it and its objective, appearing in public or private records or databases destined to supply information and in case of falseness or discrimination, demand their elimination, rectification, confidentiality or updating"*. Consequently, Law 25326 called of "Personal Data Protection" regulates the overall protection of the personal data entered in records, registers, data banks or other technical means of data treatment, either public or private, destined to supply information, to guarantee people's right to honour and intimacy and also the access to their recorded information. These provisions are also applicable to artificial persons' data. The databases and the sources of press information may not be affected. The law defines as "record, registration, database or data bank the organized collection of personal data which is the object of electronic treatment or processing, whatever the manner of its formation, storing, organization or access". The "computerized data" are defined as "those personal data subjected to electronic or automated treatment or processing". The data included in databases, that must be accurate and updated, cannot be used for other purposes than or not compatible with those that motivated its obtention. Any data which is entirely or partially inaccurate or incomplete must be either deleted or in its case completed by that in charge of the record or database. Data owners are guaranteed the right of access to the data. The treatment of personal data is unlawful when the owner had not given its free consent, expressed and informed, which must be done in writing or by any other means provided. Such consent shall not be required when the data has been obtained from a public source of unrestricted access; when it has been gathered to allow the specific duties of the State power or by virtue of a legal obligation, either in the case of listings that only include a name, ID, tax payer or social identification number, occupation, date of birth and domicile, or if derived from a contractual, scientific or professional relationship of the data owner and are required for its development or performance, or for financial entities operations. Nobody can be forced to supply "sensitive data". However, these data can be collected and subjected to treatment when there are reasons of general interest authorized by law, or when they respond to statistical or scientific purposes, provided their owners cannot be identified. As regards health data, the Argentine law provides that *"the public or private health institutions and the professionals connected with health sciences may collect and treat personal data related to the physical or mental health of the patients that turn to them or who are or have been under their treatment, abiding by the professional secret principles"*. In any case, those in charge of the data records must ensure the personal data safety and confidentiality. The international transfer of data to other countries or entities is restricted to cases of legal cooperation or if the data transfer purpose is to exchange information between the intelligence services of different countries in the fight against the organized crime, terrorism and drug trafficking. Anyone can request information on its personal data included in public or private data banks destined to provide information, and the person in charge of the data bank must supply the information within a fixed period of time. If there is no reply or if the information supplied is deemed as insufficient, the protection action or *habeas data* may be filed. Any public or private file, record, database or data bank destined to supply information must be registered in the Registry qualified by the controlling body (National Direction of Personal Data Protection) that may impose penalties in case of violation of the legal principles provided by this norm. Furthermore, the Code of Criminal Procedure has been amended including as a crime against the honour to knowingly insert false data into a personal data file. The crime is aggravated when the false data is provided to third parties, when any damage has been caused to somebody or when the author or person responsible for the crime is a public officer.

a6. Does your country legislation provide any norms that regulate the electronic mail privacy? If positive, what sanctions have been established in case of violation of the intimacy right?

As a general rule, we can say that most legislations include the right to intimacy and the privacy of the communications, concept that covers those made by electronic means.

In Germany, the violation to this norm is punished with prison, but this is only accepted when the purpose is to protect the Constitution of the German state. The Hungarian Code of Criminal Procedure punishes the misuse of personal data and the unauthorized spreading of private or commercial secrets. The penalties are more severe in the case of secrets related to insurance or sensitive data (i.e. data on the client's state of health). The electronic messages in Hungary are considered as private or commercial secrets.

Portugal has included in its legislation the norms of Directive No. 95/46/EC of the European Parliament referred to people's protection in the electronic processing of data. Consequently, imprisonment has been provided in case of violation of correspondence or telecommunications made through any technical means. The French legislation has established special norms for the protection of private electronic information, providing penalties in case of violation of the same.

Greece has informed us that there are norms included in its Constitution regarding the correspondence privacy, adding that a recent law protects the secret of any form of communication (including electronic) and the network safety. The penalties for its violation may include imprisonment, severe fines and administrative sanctions.

Belgiums's positive answer is based on its Law of Privacy and Electronic Commerce, which imposes criminal penalties in case of fraudulent use or manipulation of communications and electronic signs. The Belgium Criminal Code of Procedure, in accordance with the European Community Directives, sanctions with imprisonment the alteration of the private electronic communications confidentiality.

The Spam Law passed in Australia, that tends to punish "unsolicited commercial electronic messages" is fairly interesting and original.

South Africa's legislation on cybernetic crime (ECTA - Electronic Communications and Transactions Act) seems to be rigorous and it punishes anyone who gains access or intentionally intercepts any type of data without permission. Selling, distributing, owning or using any devices or programs to break down the security measures designed to protect data is liable to sanctions.

Through the answers to the questionnaire, we have understood that in Japan protecting the electronic mail privacy is not deemed as necessary.

Latin America: Brazil informs that its legal norms protect the communications privacy including the electronic mail, and its violation may be sanctioned with criminal penalties.

Colombia has confirmed that on this matter the intimacy right has constitutional bases and its infringement may be punished with criminal sanctions. Chile's legislation includes a catalogue of penalties for computer crimes.

El Salvador has sanctioned norms that provide the electronic mail privacy establishing penalties for the alleged ignorance of such right.

In Paraguay and Uruguay there is no legislation that controls the electronic mail violation.

In Argentina, even though there are no specific norms that regulate the electronic mail privacy, both the doctrine and the judicial precedents consider that the same principles must be applied as those provided for letter correspondence. These principles are established in the National Constitution that provides the correspondence inviolability. The criminal legislation provides sanctions for anyone who violates the correspondence. Consequently, it may be gathered that unless there is a pact between the issuer and the receiver, expressly stated in the electronic mail text, its content may not be communicated to third parties, since the receiver has a right on the mail as a communicative virtuality, but the issuer is entitled to the author rights on the text itself and it cannot be published without its express authorization.

a7. In your country, is there any insurance coverage that protects against damages for viruses or computer failure, in particular, damages to external networks?

In those countries where electronics has been sufficiently developed, it is usual to find insurance coverage that protects against damages for viruses or computer failures. In Germany, for example, since 2005 there are insurance policies that cover those damages caused to the net by viruses or system failures, and that has been structured in some insurance companies and is known as "Software Insurance Policy". In Spain, Italy, Portugal, Switzerland and Belgium there are policies supplied in the insurance market to face up to these risks that usually have limits and deductibles. In France, there is an insurance form known as "FIA-NET" that basically aims at protecting against electronic fraud, including financial losses caused by fraudulent actions. It usually covers merchandise deviations or robberies caused by the malicious use of data in an e-commerce operation. Therefore, the simple robbery or appropriation of merchandise or any other characteristic transportation risks are not covered.

Any loss resulting from the Internet use is excluded, if it is proved that the client has not maintained the security systems or if there was undue manipulation of the software.

In Italy, these policies cover the damages to electronic equipments and software caused by viruses and system failure, as well as the professional civil liability resulting from the provision of computer services, with the condition that there must be a technical assistance and maintenance contract for the programs with a licence.

Australia's answer is interesting, as it makes a distinction between civil liability insurance towards third parties and those protecting the property, including engineering policies (technical insurance). As regards the first (damages caused by virus and computer failure) in general they are not covered. The exclusion clauses are usually very casuistic, providing the lack of coverage for civil liability derived from a mistake in the creation, entry or use of electronic data or the impossibility to receive or send data, as well as that caused by Intranet or Internet use, electronic mail included. However, some insurers are offering corporate policies to cover these contingencies, with limits and deductibles, subject to an audit of the client's security system. As regards civil liabilities policies for failures caused to third parties for spreading of viruses, it has been said that they are very limited and costly, with unknown results (the insurance companies are reluctant to supply that information). As regards the material damage to property, it is possible to cover them in "packages" or comprehensive policies against industrial risks, but with limits and deductibles. As regards the "system failure" consequences, they are included under a generic – corporate – protection of equipment failure that, in general, does not cover the client's loss of profits. Australia has informed that as a rule, the damages to external nets are not covered.

In South Africa, there is a specific insurance for data protection. In Japan, it is possible to protect against damages for viruses and computer failure, and also the external nets.

Latin America: In most Latin American nations, such type of insurance does not exist. In Colombia, and also in other countries, the risks derived from the computer system frauds are covered, specifically in comprehensive banking policies.

a8. If the answer to the previous question is positive, how are those risks assessed? Are there any limits? Deductibles?

The countries that gave a positive answer to the previous question offer this coverage with limits and deductibles after assessing the risk and the client's security system (Germany, Spain, Italy, Belgium, Australia, South Africa, Japan, etc.). In France, the policies cover the hardware and the software, the repair or replacement costs, the supplementary costs produced by direct damages and loss profits.

Latin America: most answers remit to the aforesaid in the previous item. In any case, the limits and deductibles depend from the reinsurance coverage. Colombia makes clear that in order to correctly assess those risks, the client must provide the insurer with a detailed report on the data processing system, the organization of the computer system and its audit; the type of external audit and the access to the computer programs (use of access keys, entry registrations, restriction of terminal use, safety measures, etc.).

a9. What approximate percentage of insurance premiums in your country is commercialized through the Internet?

In all the countries where it is possible to take out insurance through the Internet, the percentage of operations made by that means is still very low. Some countries have stated that they do not have such information available mainly because insurers do not usually inform about that kind of contracting. However, Spain has informed that the products that usually are more frequently commercialized through that means are car and health insurance, that represent 86% and 6% respectively of the premiums issued. In Italy, in 2004, the percentage of sales through the Internet – basically car civil liability – reached a 0.9%. Switzerland considers the same to be 5%. Belgium has informed that, as in other countries, the insurers websites supply passive information and advice, but few are the insurers where contracting can be made through electronic means. The operations made through the Internet are limited to travel insurance. The Belgium report adds that the reasons that explain why the insurance contracting through the Internet is so limited, lie on the lack of trust in the insurer's website, doubts about the electronic payment safety and the exchange of data through that means; fear of the new technologies, the desire to continue the relationship through the insurance agent; the need to adapt the own systems. In

Australia, despite the previous item comments, the percentage of operations through the Internet is not significant (approximately 2%). In Japan, it is calculated in 3%, basically in car policies.

Latin America: there are practically no operations through the Internet. However, Colombia considers that the percentage may have certain significance in commercial terms.

a10. In your country, are there any legal barriers to prevent that the insurance contracting through the Internet may harm your country's fiscal power?

To begin with, let us explain which was Argentina's concern when it made that question. The answers received show that it was not duly interpreted.

When we mentioned "legal barriers", we meant norms for the protection of the local market. This question is no longer valid in Europe considering the European Community integration. But we think that it still may have significance in other markets which are not integrated. The "legal barriers" of each country may be overcome when the economic integration is full, even though the principle of the local market protection will maintain its validity within the community context. Today, the Mercosur is not a good example of it. What happens as a consequence of the Internet is that those barriers that would prevent the contracting outside the territory might be overcome and give place to the so called transborder commerce of insurance. In which case, we ask ourselves what happens with each country's fiscal power when perhaps the electronic operations are performed from another country without any chance of due knowledge and control by the local authorities.

The matter was considered at the Inter-American Federation of Insurance Companies (FIDES, for its Spanish acronym), with a general consensus of the countries outside Latin America on the concern for the potential generalization of insurance contracting through the Internet.

In several of our countries, off shore life insurance is now increasingly common due to the Internet development.

But not only the impact on the local fiscal power of our countries is a matter of concern - that represent in itself a weapon of disloyal competition - but especially the impact on the companies incorporated in this continent, that certainly include first line operators of all the world which have made significant investments in Latin America.

The concept of “legal barriers” especially enclose those norms of protection that since the old days are in force in our continent Thus, in Argentina, an old but still effective law No. 12988 of 1947 establishes that any interest that can be insured located in the country or the people domiciled in it can be insured abroad, except for what may arise from regional agreements, like Mercosur. The violation of such norm is sanctioned with a fine 25 times the amount of the premium. In Brazil, the Decree-Law No. 73/66 according to the text given by law 9932 of 1999, restrictively provides that contracting insurance abroad must be limited to those risks that cannot be insured in the country or which are contrary to the national interests. In Colombia, the Decree-Law 663/93 provides similar restrictions to insurance contracting abroad. Section 46 of Decree-Law 251 of Chile, establishes in similar terms that “foreign insurance companies may neither offer nor contract insurance in Chile, neither directly nor through intermediaries”. In Ecuador, section 5 of law 6709 confirms the same criterion. In identical sense we mention section 17 of Decree-Law 473/66 of Guatemala; section 2 of the Act of Insurance Companies of Honduras; section 2 of the law 16426/94 of Uruguay; section 4 of the law of 1994 of Venezuela; section 3 of the law 1883/98 of Bolivia; section 125 of the law 827/96 of Paraguay; section 26 of the law 59/96 of Panama; section 1 of the law of 1996 of El Salvador. Section 3 of the General Law of Insurance Companies (ordered text 1989) of Mexico, bans contracting with foreign companies the insurance of persons domiciled in the Republic, as well as any patrimonial insurance risk that may occur in Mexico. Exceptionally, they can be taken out abroad when no Mexican insurer can provide the coverage offered. At Mercosur level, a Community Directive (Resolution 83/99 of the Common Market Group) has been passed that, while it defines what is understood by “market reservation”, gives the guidelines to respect the principles established by the local legislation.

What we want to express is that even though we cannot ignore our countries’ support to the norms of the World Trade Organization (OMC, for its Spanish acronym) regarding the financial service deregulation, insurance included (“General Agreement on the Marketing of Services”), the potential consequences of the e-commerce operations are still worrying.

The main question is how to control the transborder commerce in case of operations through electronic means. What will the developing countries do to have the aforementioned norms respected and what will happen to each country fiscal power to avoid transgressions of the local jurisdiction? That is why the former General Secretary of FIDES, the Colombian William Fadul, at the European Insurance Committee meeting that took place in Paris in March 1999, held that the insurance contracting through the Internet might even destroy Latin American insurance market. This opening-up, perhaps incontrollable, brought by the globalization and the consequent generalization of the e-commerce, cannot lead to the irresponsibility of setting aside the barriers that allow to defend the developing countries economies.

At the meeting of FIDES countries held in Miami in March 2001, the executive boards expressed “their great concern about the development of the electronic commerce as the Internet breaks through the national legislations and the local superintendents and authorities seem unable to control this phenomenon”. Argentina recommended to: “(outline) the fiscal authorities’ responsibility to avoid violating through the Internet the local fiscal power (Directive 2000/31/CB of the European Parliament); the limitation of electronic insurance contracting; considering that the consumer rights should not imply the encroachment of each country fiscal power”.

We have noticed a similar concern in the Official Report submitted by Chile in CILA Conference (Rosario, 2001). As there is no “political sovereignty in the Internet, charging the applicable taxes to transborder transactions poses a real problem, as in fact they should be taxed according to each country national legislation, and we must try to avoid that the Internet does not turn into some sort of virtual tax haven”. The presumption that “given the global characteristic of the net, it is possible to imagine that the tax evasion may reach great magnitudes” is truly valid. And that is due to the difficulty to control the tax payment, what becomes “more difficult and complex when the transactions are performed by e-commerce".

On the other hand, Professor Kees van Raad, in the traditional Annual Conference of the International Fiscal Association held in London in 1998, made these questions: What is the basic criterion within the context of the electronic commerce? Is it possible that a software turns into an agent and therefore into a permanent establishment? What is the legal nature of the payments made for services provided through the Internet? Are they payments for sales, services or for renting an asset? Is this just a modernization of the transaction?" This shows that the tax matter in electronic operations in not an easy question. And that is because "… In online operations some basic concepts of the tax system, such as "fiscal sovereignty", "permanent establishment", "localization of the taxable event", etc. are in crisis and denote the urgent need for regulations that without hindering its growth (the electronic commerce) secure the tax collection" (Godoy Cotonat C., in "Tax Payment Problems in E-Commerce Operations", elDial-com, of 9/7/06).

As regards the answers from the national sections to the questions made on this matter, Switzerland's must be pointed out, as it has expressed a similar principle to that found in Latin American countries: Foreign insurers that are not authorized in Switzerland cannot provide coverage for damages to a client domiciled in said country, neither in the usual manner nor through the Internet.

In Japan, there is a similar principle in effect to that known in Latin America as "local market preservation" for the Japanese insurers: only assets existing in Japan can be insured by insurers settled in that country even though they are made by electronic operations.

Anyway, the answers given have been useful to appreciate the manner in which insurance contracts are levied in other latitudes and compare it with the excessive fiscal pressure endured by some of our countries, such as for example Argentina.

b) General principles of the electronic contracting.

Please indicate if your country's legislation regarding electronic contracting take into consideration the following general principles: 1. functional equivalence of the electronic legal acts in respect of written legal acts; 2. immutability of the existing law of private obligations and contracts; 3. technological neutrality; 4. good faith; 5. contractual freedom within the electronic context. 6. probative value of the electronic document.

All the nations have enacted norms on the electronic signature, surrounding them of sufficient safety and authentication guarantees and they have respected the general principles indicated in the question, that we shall analyze separately.

b1. Functional equivalence of electronic legal acts in respect of written legal acts.

In principle, we reiterate the introductory statements: The principle of the absolute functional equivalence of a document endowed with safety with a written document can be appreciated as a norm enclosed in the legislations. However, it has been pointed out that the aforementioned equivalence does not affect the faculty of the national legislations to demand in specific cases that the will be expressed by the traditional written document (as the Chilean law demands to consider an insurance contract as perfected – it must be taken into account that the contract is solemn in Chile). (See Official Report of the Chilean Section of AIDA in CILA-AIDA VII Conference, Rosario 2001).

The German Civil Code (in a recent amendment) has consecrated such functional equivalence establishing that the written form of a document can be replaced by the electronic form, unless otherwise provided by law. To that purpose, the electronic signature must satisfy the requirements provided by the specific legislation.

Spain has informed that its new legislation considers such equivalence when it provides that when the law demands that the contract must "be in writing, this requirement will be deemed as satisfied if the contract or the information is contained in an electronic support" that allows keeping, easily recovering and reproducing without changes either the contract or the information.

Italy also establishes such equivalence by law, provided that certain technical resources be adopted that allow ascribing the document with certainty to the author. Portugal has transcribed for us an internal law norm that reproduces the Community Directive on Electronic Commerce that provides: "An electronic document is equivalent to a signed document if it satisfies the legal requirements established for the electronic signature and the certification".

In the same way, France has given account of a norm of its Civil Code that provides the legal equivalence between an electronic support and the written support if the electronic procedure is safe (as regards it durability and integrity) and the issuer is identified.

Furthermore: in France, the electronic registered letter to rescind a contract can be used, with electronic return receipt addressed to the sender.

b2. the immutability of the existing law of private obligations and contracts.

All the nations that legislated on electronic signature have incorporated as a ruling principle the respect of the effective norms on the contractual obligations of the parties. For example, the new law of Germany expressly provides: the same private contractual rights and obligations are applied in a contract entered into through the Internet.

Spain has informed us about a norm of its Law of Services of the Computer Society (LSSI, for its Spanish acronym) and the EC that textually provides: "*The contracts entered into through electronic means shall produce all the effects provided by the legal norm when the consent and the other requisites required for its validity are present.* The electronic contracts shall be ruled by this Title provisions, by the Civil Code and the Commercial Code and by the other civil or commercial norms specific on contracts, by the protection norms of consumers and users and by those regulating the commercial activity". We have deemed very illustrative to transcribe such norm as it shows the range of criteria of the Spanish legislation and the reaffirmation of the unrestricted validity of the basic provisions on the electronic forms that as Chile pointed out, are only a means of support and transmission of the wish to enter into a contract.

Italy, France, Belgium, Australia, South Africa, Japan, etc. have pointed out that this general principle of immutability of the existing norms as regards private obligations and contracts is not affected by electronic contracting, except by agreement of the parties. The Latin American countries that have sanctioned laws on the electronic signature respect the same principle.

b3. The technological neutrality. This principle is also applied in all the nations that regulated the electronic signature: the technological instrument used is indifferent, and that must be so to have the chance to be technologically updated.

b4. Good faith. In electronic contracting the principle of good faith has special significance, it must be considered at its maximum expression, for its technical innovation and complexity, as Chile pointed out in CILA Conference in Rosario.

b5. The contractual freedom within the electronic context. The electronic context neither harms nor conditions the contractual freedom.

b6. Probative value of the electronic documents. The electronic support of a contract entered into by that means is admissible in court with the same probative value as the written documents. The Spanish law puts it in an equal footing with the documental evidence. South Africa legislation establishes that the information supplied as a message of electronic data has the same sufficient probative value, especially if the issuer's identity and the manner in which it was generated can be guaranteed.

c) <u>The contracting, management, execution, performance and termination of insurance and reinsurance contracts</u>

c1. Please indicate how the electronification has affected the different moments indicated. In particular, state whether the delivery of the policy written text is imperative or if its possible substitution by the electronic message has been regulated.

In European countries, the analysis of this matter, of special significance in the formulation and operation of the insurance contract, is considered through community directives.

Without affecting the technological innovations and the sanctions of the laws that regulate the electronic signature and the certification authorities, all of which tends to give the maximum safety to the communications and the electronic contracting, it can be noticed however that in different legislations the insurer still has to deliver a written policy. Such is the case in Germany, Hungary, Switzerland, Belgium, Portugal, Greece, etc.

Italy has carefully regulated the electronic process of insurance contracting according to Directive 2000/65/EC that regulates the marketing of off-site financial services. Before entering into the contract, the client shall have received written information on the contractual terms that will govern it, the premium financing, the right to the contract rescission, its duration, the applicable legislation and the competent jurisdiction for the electronic contract. No specific norms have been provided in Italy for other contractual stages; therefore the general norms of insurance contracting are applied.

Hungary, even though it has pointed out that the written policy is mandatory, allows however the electronic consent through the use of an advanced electronic signature.

France has informed that the delivery of a written policy is not mandatory unless the supposed client so demands.

In its complete report, Belgium has informed that as long as the Community Directive norms are respected and there is functional equivalence with the paper documentation, with the sufficient degree of legal safety it is possible to enter into contracts through electronic means. But it warns: “The problem is now to determine if the establishment of this regulatory frame the purpose of which is to promote the formalization or celebration of contracts through electronic means, will promote the success of online contracting of insurance. In fact the law satisfies a necessary but not sufficient condition. The other conditions depend more on the commercial strategy outlook and the insurance companies approach before the new technologies”. Belgium adds that written documents as the coverage offer or the policy general conditions must be delivered in a lasting support. The concept “written” is construed in the broad sense as any kind of intelligible (and legible) signs which are accessible and allow its future review. In the electronic formulation it is important that the document can be assigned to a certain person that gives faith of the document integrity. If the electronic messages do not satisfy the requirement of an advanced electronic signature, that is, if they cannot be considered as electronic *actes sous seing privé* (private written evidence of a legal act), they may be considered as introductory evidence in writing, what will imply complementing it with other probative means in case of discrepancy.

The principle that despite issuing an electronic document with a certified signature by a qualified certifier with the relevant legal support, it is still necessary to issue a written policy can also be appreciated outside Europe, in Australia, Indonesia, South Africa, etc.

Latin America.
The written policy delivery is mandatory in all the nations that have answered the questionnaire.

c2. Is there a certifying authority of electronic documents? If positive, which are the conditions demanded for its performance?

We have previously stated that what hinders the greater development of the electronic signature is the degree of distrust in the system, in particular in the safety of the data provided. Certain formulas have been found that guarantee both the data transmission and the use of digital signatures by means of codes (encryption). In that way, the identity of the contracting parties can be certified and, as AIDA's Chilean Section pointed out in its substantial Official Report at CILA Conference in Rosario (Argentina, 2001), what makes to the safety is that those who enter into the electronic contract truly are who they say they are, avoiding the repudiation or rejection of the messages and ensuring the documentation integrity. Hence the necessity of the existence of prestigious entities that certify and back the authenticity of the electronic transmission. These entities grant the key certificates for the contract signature; in short they give faith on the identity of the issuers and receivers of the messages electronically signed. No wonder it has been said that the certifier's work imply giving "public faith" of the acts and contracts that they certify, in some sort of assimilation with the traditional work of the notary public.

In the countries where the electronic signature has been regulated, in general, the aspects that were considered in the norms involve the certifying authorities (providers of the certification service) of electronic documents, as well as the conditions of the certificates that they must issue. The certificate is an electronic document that relates the data which verifies the signature with its owner, confirming in this way the identity of the latter. The providers or certifying providers must satisfy a series of obligations that in Europe, to a great extent, come from the community directives that have regulated the e-commerce.

For example, the Electronic Signature Act (LFE, for its Spanish acronym) of Spain establishes that such providers can neither store nor copy the creation data of the signature of the person to whom the service was provided. Besides, before issuing the certificate, they must provide the applicant with information on the manner in which they will guard the creation data of the signature, the procedure to be followed in case of loss or undue use of said data, communication of certain mechanism of creation and verification of the electronic signature, description of the mechanisms of intangible preservation of the electronic signature after some time, the method used by the provider to check the signator's identity, usage conditions of the certificate and the manner in which the provider guarantees its patrimonial responsibility. It is also mandatory for the provider to keep an updated record or directory of the certificates that it has issued indicating its time of validity. This directory shall have sufficient conditions of safety and reservation. Finally, the provider shall guarantee the immediate availability of a consultation service of certificates.

Hungary has confirmed that in that country, in order to create an indubitable electronic signature, a valid certificate must be obtained from a qualified certification service. In France and Portugal public bodies have been created that certify the certification providers. In South Africa and Japan there are certifying authorities.

Latin America: Brazil has informed that there is an organization that has been qualified for digital certification, even though it is not doing it yet.

For the degree of accuracy and detail we must stop to consider the Colombia Electronic Commerce Act No. 527 of 1999. This act provides that both artificial persons public and private, national or foreign, and the chambers of commerce authorized by the Superintendency of Industry and Commerce that have the economic and financing capacity and the technical infrastructure to generate digital signatures, issue certificates of authenticity and conservation of data messages, may be entities of certification. The Colombian legislation establishes very rigorous requirements for the integration of such entities, among others, it provides that its agents and administrators may not have been convicted to penalties involving personal restraint, except for political or negligent crimes, or have been suspended of or excluded from exercising its profession for serious offence against the ethics. The entities shall issue the certificates of digital signature and the proofs of the alterations between the remittance and the reception of the data message and may provide services of creation of certified digital signatures and filing and conservation of messages.

At any time, such entities of certification shall guarantee the protection, confidentiality and due use of the information supplied by the subscriber keeping record of the certificates issued.

The law 588/00 complements the norms establishing that the notary publics and consulates may be certification entities, without the previous authorization from the Superintendency of Industry and Commerce.

We must also make reference to the Republic of Chile legislation, that provides that the Electronic Signature Certificate – that gives faith of the connection existing between the signatory or holder of the certificate and the creation data of the electronic signature - must include certain basic requirements: a) Sole code of identification; b) provider's identification; c) holder's identification; d) period of validity.

In order to grant the certificate, the provider shall verify the identity of the applicant or its legal representative (if it is an artificial person); shall personally deliver the creation data of the signature to the holder and shall enter the certificate issued in its Public Record . The validity of the certificate shall cease by extinction of the period or by the provider's revocation.

The accreditation to act as provider of certification services is granted by the Undersecretariat of the Ministry of Economy. The regulations require from the providers to keep a certificate record of public access where the availability of the information contained therein be guaranteed on a regular and continuous basis and which may be acceded by electronic means.

In Ecuador, the legislation establishes that the certifying entities require a previous authorization from the State through the National Council of Telecommunications.

The Argentine Digital Signature Law No. 25506 of the year 2001 also provides norms on this matter. By qualified certifier is understood any artificial person, public registry of contracts or public entity that is qualified to issue certificates and provide any other service related to the digital signature. According to this norm there are no certifying authorities but a licensor authority of certifiers. Moreover, we can add that in some spheres of the international commerce in Argentina the digital documents are used with foreign certifiers of international renown, but that does not occur in the insurance internal market.

c3. In your country, does a safe telematic notification service exist with full legal efficacy and probative value similar to the certified mail?

In almost every country where the digital signature is regulated and fully applied it is acknowledged that the telematic notifications have full legal validity and a similar probative value as the certified mail. For example, Germany, Spain, Italy and Portugal. In this last, a decree of 1999 provides that the telecommunication transmission of electronic documents bearing an electronic signature to secure its reception is equivalent to a certified mail reception. France has informed us that the Agency for the Internet Safety certifies the validity of electronic mails.

Instead, in Australia, South Africa, Japan and Indonesia there is no electronic notification service that has the same probative value as the certified mail.

Latin America. All the countries that answered the questionnaire expressed that so far there is no electronic notification service that has full efficacy and identical probative value as the certified mail.

d) The electronic signature

d1. Are there in your country any norms that regulate the use of the electronic signature?

The general answer, especially of the European countries, has been positive. For example, Germany, Spain, Italy, Hungary, Portugal, France, Greece, Denmark and Belgium. Because the sanction of an electronic signature law was firstly provided by the European Community by Directive 1888/93/EC and therefore the EC nations had to adapt their internal legislation. In Belgium, the Civil Code was amended by law of the year 2000 acknowledging the validity and probative value of the electronic signature under certain conditions of imputability and integrity and if produced by a secure signature mechanism and accompanied by a qualified certifier. The advanced electronic signature has the same value as the written signature. The written document that bears an electronic signature and satisfies such conditions has *ex lege* the same value as *un acte sous seign prive.* The conclusion of Belgium's report is that "the approval of an insurance contract demands a written and signed document". It is not necessary that the document bears a written signature; an advanced electronic signature or an electronic signature that secures the message integrity and authenticity (pursuant to section 1322 of the Civil Code) are acceptable and have identical probative value".

In Australia, the law of electronic transactions allows a person to satisfy the requirement of the written signature through electronic means that includes a method to identify the person and that indicates the approval of the information provided. The electronic signature is the method by means of which a person can be electronically identified. Whatever the method chosen, it must be reliable and appropriated to the circumstances. The method does not need to be a sole identifier. Suffice it to identify the person for communication purposes. The law is technologically flexible and neuter. It is the market's job to evaluate the signature systems that come as more appropriate for specific purposes. The purpose of the legislation is to knock down the obstacles that prevented Australian people to make electronic transactions trusting in their legal status.

However, the electronic standards are not specifically applied yet to the insurance and reinsurance industry in Australia, even though the digital technology is used by the companies in different processes of the operation.

In South Africa, the answer is also positive. The simple electronic signature is differentiated from the advanced signature, considering that this last comes from a process made by a well known provider of the authentication service or certifier.

Japan has informed that in its country there exists both an electronic signature law and regulations regarding the certification through that means.

Latin America: There are provisions on electronic signature in Brazil, Colombia, Mexico, Chile, Argentina, Ecuador, Uruguay (in this last case, it only rules the public administration and is restricted to the banking sector).

In Colombia, the applicable legislation establishes the principle that when a digital signature has been fixed onto a data message it is presumed that its subscriber had the intention of confirming that message and of being connected with its content. The use of the digital signature will have the same strength and effects as the use of a written signature if it includes the following characteristics 1. it is the only one used by that person; 2. it is susceptible of being verified; 3. it is under the exclusive control of the person that uses it; 4. it is linked to the information or message in such a way that if those are changed, the digital signature is invalidated; 5. it is in accordance with the National Government regulations.

In Uruguay – where as we have mentioned before it only rules in the public administration and is restricted to the banking sector – by a special norm it has been provided that the use of the electronic signature and the digital signature will have identical validity and efficacy as the autographed signature provided that they are authenticated by passwords or other secure procedures.

In Argentina, it is legally considered as electronic signature that which lacks any of the formal requisites of the digital signature (especially the certification of a qualified certifier). Therefore, pursuant to our legislation and since there is no licensor body, only the electronic signature can be used (but not the digital signature).

d2. According to the norms existing in your country, does the digital signature have the same legal value as the written signature?

In general, we could gather that for those countries where the e-commerce is widespread and regulated, the digital signature has the same legal value as the written signature, as long as it satisfies the authenticity, confidentiality and control requirements. Hungary has made one differentiation: the consequences depend on the type of electronic form. The value of simple electronic signatures cannot be denied but, all in all, they will be subject to ratification. The electronic document that bears an advanced electronic signature is put on an equal footing with the documents bearing a written signature, with autonomous probative value. The Portuguese legislation establishes that an authorized or certified electronic signature appended on an electronic document is equivalent to the written signature on a paper support. The Belgian law also confirms that the advanced electronic signature has the same value as the written signature: a document that bears an electronic signature that satisfies the authenticity, imputability and integrity requirements accompanied by a qualified certificate has *ex lege* identical value as the written signature.

Indonesia has not regulated yet the digital signature applying the principle that the written signature is the only one valid as a proof of assuming obligations and rights.

Latin America. In most countries that have legislated on the matter, it is established as general principle that the acts and contracts subscribed by electronic signature shall be valid in the same manner and shall produce the same effects as those entered into in writing and with a paper support. The Chilean law adds that the electronic documents considered as public instruments may only be subscribed by an advanced electronic signature.

d3. Is the support containing the data electronically signed admitted as documentary evidence in court?

As we could see in the previous items, in all the countries where the electronic signature is regulated with the authenticity, integrity and certification requirements, the support can be admitted in court as documentary evidence. That we find, for example, in the Law of Civil Procedure of Germany, in the Electronic Signature Law of Spain, and in the Italian legislation. Portugal has provided that when the electronic signature is guaranteed by a certifying body recognized by the authority, the respective documents have the same probative value as a private document subscribed with a holograph signature. In Belgium, according to the European Community Directive 1999/93/EC, the respective legislation has included a non invalidation clause of the electronic signature: the fact that it bears an electronic format or that it is not based on a qualified certificate or that the certifier is not duly qualified *"does not prevent its legal effect or that it may be admitted as evidence in a legal procedure"*. In these cases (that is, when we are not in the presence of an advanced electronic signature) the judge will determine if the authenticity and integrity requirements have been satisfied.

Japan has informed us that the norms of civil procedure in that country are based on the "principle of free conviction"; therefore the judges must decide whether to admit the probative value of the evidence received, generic concept that includes the digital data evaluation.

Latin America. Brazil, Paraguay and Uruguay do not acknowledge the probative value of electronically signed data. (In this last case, they can be admitted but only in the public administration sector). In Argentina, it depends on the judge's criteria and is not always admitted as documentary evidence.

d4. How are the digital signature characteristics reflected on your country's legislation as regards authenticity, integrity, confidentiality and non repudiation?

All those countries that have specifically regulated the electronic signature and its certification have established terms of authenticity, integrity, confidentiality and non repudiation. According to Germany's report, thanks to the regulated procedure the document receiver can be sure that the author is the same person as the document sender and that it has not been forged. In Spain, the Electronic Commerce Law (LCE, for its Spanish acronym) provides that the advanced electronic signature is exclusively related to the signatory and that it is kept under its control. Italy states that the technical procedures guarantee that the electronic document comes from the signatory, thus securing the authenticity, integrity and no chance of repudiation.

South Africa has replied stating that its legislation satisfies the epigraph requirements. It adds that the advanced electronic signature necessarily comes from an authorized provider of the authentication service. Japan has reported that it uses the Public Key Infrastructure (PKI), but the biometric infrastructure is also allowed.

Chile has confirmed that the electronic signature considers the integrity characteristic (guarantee of no alteration of the message sent); authenticity (that the information was sent by the issuer), and confidentiality (the message sent can only be read by the addressee) as long as the public and private keys are being applied.

d5. Data encoding systems: symmetric and non symmetric keys.

The IT development and its application in a great part of the countries with electronic signature regulations, leads to the establishment of data encoding systems that tend to give more guarantee to the safety system.

Spain has informed that its Electronic Commerce Law (LCE, for its Spanish acronym) differentiates the simple signature from the advanced electronic signature and it defines the first as that set of data, electronically provided, that can be used as a means for the signatory identification. Instead, the advanced electronic signature not only permits to identify the signatory in an unquestionable manner, but also allows detecting any change in the data transmitted, and it has been created by means that the signatory can keep under its exclusive control.

In order to consider this matter, we must previously define what is conceptually understood by cryptographic procedure. The cryptography has been defined as the science that deals with the transformation of texts or messages clearly expressed and written in a certain language, in forms apparently unintelligible for third parties that must be kept unaware of the content, and that is afterwards in charge of turning them back to their original language (Martinez Nadal, “Electronic Commerce, Digital Signature and Certification Authorities”, Madrid, 2000).

The electronic technique has indicated that presently there are two types of cryptographic algorithms. The *symmetric* or conventional system or key uses a sole key to encrypt or unencrypt; in the *asymmetric* system, two different keys are used (public and private). Something that has been encrypted by a sole key, can only be unencrypted by the other. Therefore, any information encoded by a private key can only be unencrypted by the corresponding public key (of the pair); and any information encoded by a public key can only be decoded by the pertinent private key. It is obvious that the private key is personal and untransferable. We shall not start describing the process of creation of the digital signature, the encoding and validation procedure, so well illustrated in Portugal's report and that we mention as a valid reference.

And in order to guarantee that the pair of keys belongs to a certain issuer, we resort to the *digital certificates* issued by a reliable third party (certification entity).   We shall describe now how the system works in practice. In order to create an indubitable digital certificate, the certifier generates a code that contains information on the issuer's identity and its public key; the certifier signs this certification with its private key, creating in this way an encrypted code; at the same time, the receiver regenerates the certificate code and decodes it using the public key. In that way, the certificate shall be fully valid.

Chile's report submitted at CILA Conference in Rosario states that *encryption* (defined as a process of data concealment under a key) or *cryptography* (art of writing enigmatically) is a technique that transforms a legible message in a format illegible to anyone who does not have the secret key to decipher it.

Finally, we can appreciate that there are two types of cryptographic techniques: a) the *private key* technique, that implies that the issuer and the receiver use the same private key. In this system, the secret key has to be transmitted by one party to the other, and as the Chilean say, when two people use the same key it is impossible to guarantee the authenticity and inviolability of the electronic signature; b) the *public key* technique that, as we saw, implies the use of two keys, one private and the other one public. The user encrypts a message using its private key and transmits its public key to all those he wants to give it to, that can only use it to unencrypt encoded messages with the user's private key, authenticating in this way the digital signature.

Australia has synthesized such complex technical operation in a few words: *"symmetric encryption"* is a type of encryption in which the code (or key) is used to encrypt and unencrypt the message. The *"asymmetric encryption"* (or public key encryption) uses a key or code to encrypt and another one to unencrypt the message (private and public).

We hope we have translated and interpreted to a certain degree of certainty, matters that surely escape the receptive capacity and apprehension of the men of law.

e) Database access

e1. Is there any regulation in your country that provides that insurers must supply their databases to the official entities?

The general answer has been positive. Every country has norms that force the insurers to provide their databases to official entities (especially, to insurance superintendencies or controlling bodies) to count with information about the work of the administration entities and the internal and external control and the operators' solvency and detect any cases of possible insolvency (early alert systems). Some countries have informed in detail about computer files against money laundering and the consistent obligation of insurers to provide timely information about the request of insurance coverage of dubious origin. Italy has stated that the powers of the Italian Exchange Offices as regards money laundering are also applicable at the international terrorism financial level. In Australia, the Australian Prudential Regulation Authority (APRA) has instrumented a database with an exhaustive content involving the insurance company operation, especially including the obligation to provide information on insurance coverage that refers to environmental cleansing caused by spillage of pollutants. In Japan, the databases have been created by the same insurers and only those companies that have adhered and provided information have access to them.

In Latin America, we must point out the case of Ecuador that has informed that the remittance of information to the purpose of control includes certain data on the clients (in the style of a risk centre of the financial market).

e2. Does that obligation respond to merely statistical purposes or to the detection of criminal assets (money laundering)?

Most national sections of AIDA that gave answer to the questionnaire have informed that the insurers' obligation to provide information to the authorities responds to the purposes of control and verification of compliance with the superintendency norms, and also to statistical purposes and also to detect criminal assets.

By virtue of the norms enacted in great part of the countries to fight against money laundering and that were agreed upon with the World Bank in the International Association of Insurance Advisors (IAIS) and the International Monetary Fund (IMF), the insurers, the banks, the insurance brokers and other operators must inform their respective Financial Information Units about any operation deemed suspicious.

e3. Is it possible to have access to a database that contains economic-financial or medical information on the insurers' clients?

As a rule, it is not possible to have access to a database that contains economic-financial or medical information on the insurers' clients.

Furthermore, Italy has given account of a database of civil liability claims for car use established by the insurers, who have the obligation to inform the data of the insured, the victims, witnesses, professionals, etc., and also provide a description of the body injuries and estimated disabilities, ensuring the confidentiality of sensitive data. The information gathered in the databases must exclusively be used to elaborate statistics and investigations provided by judicial bodies. The spreading of data is only allowed in an anonymous manner and aggregated, so that the individual subjects may not be identified. This type of database has also been established in other countries looking for ways of reducing the negative impact of car accidents.

In some Latin American countries (Paraguay, El Salvador) it is possible to have access to the economic-financial data - but not medical - of the clients (except with the clients' express authorization).

In Argentina, there are public access records of debtors in arrears, uncollectables and unrecoverables, and the exchange of information between insurers is a usual practice to avoid and prevent the insurance fraud.

f) <u>Coverage exclusions in personal risks.</u>

f1. In your country, is there a trend to establish new coverage exclusions related to the use of new technology such as mobile phones, cathode rays, expanded polyurethane, etc.?

The unanimous answer was that there are no exclusions of this type in life insurance. However, Australia has stated that the reinsurers have included "technological" exclusions in reinsurance contracts; therefore the insurers had to add them to their original insurance policies.

f2. In your country legislation, are there any coverage exclusions in personal and/or health or hospitalization insurance regarding injuries or death caused by the greenhouse effect and the gas concentration in the atmosphere?

All the national sections of AIDA replied that there are no norms that provide this type of exclusions in personal insurance.

f3. In the usual personal, health or hospitalization insurance policies of your country, are there any coverage exclusions related to the catastrophic events caused by atomic energy, earthquakes or floods (clauses referred to the dark side of the science and technology innovations?

As a general rule, in most countries the risks of catastrophic nature events are excluded, as well as those caused by atomic energy, unless otherwise provided by an existing agreement. There is also coincidence on this item as there are no other exclusions in personal insurance related to the technological progress. Spain has pointed out that the extraordinary risks (natural phenomena, terrorism, etc.) are comprehensively covered by the Consortium of Insurance Compensation. Specifically, in life insurance, death as a consequence of nuclear radiation is excluded, as well as certain risk activities.

The Italian law excluded from the insurance coverage those damages derived from telluric movements, war, popular insurrection or riots, unless otherwise provided by an existing agreement. Furthermore, the damages caused as a consequence of atomic catastrophes are not covered.

With every detail, Belgium has informed that in health insurance contracts (hospitalization), the risks of nuclear and radioactive radiation; experimental treatments or without a scientific check up; live cell therapy; anticonceptive techniques of in vitro fertilization or artificial insemination, are excluded.

In Japan, there exists the possibility to cover earthquakes or the damages caused by atomic energy, with the consequent accrual of an additional premium.

In Indonesia, the catastrophic events caused by atomic energy are excluded, but it is possible to cover damages for earthquakes and floods.

In Colombia, the catastrophic nature events (earthquake, volcanic eruption, floods, etc.) that may affect people's life or health, are covered by life insurance policies.

f4. In your country's legislation, are there in personal insurance any coverage exclusions for health damages caused by toxic industrial chemicals (biphenyls polychlorates)?

The reply has been uniform: The personal insurance legislation does not provide any exclusion for damages caused by toxic industrial products. Only Switzerland and Indonesia informed that it is possible to cover such risks.

g. Subrogation right.

g1. Can the insurance entities that provide this type of coverage, subrogate the insured's rights with reference to the cost of claims undertaken when they were caused by misuse of the new technologies (i.e. injuries or death caused by transgenic food or cultivation, genetic experiments, pharmaceutical products, etc.)?

Most countries legislations (exposed for the first time in the Belgian Act of 1874) consider the subrogation institution, by means of which the insurer subrogates the insured's right (that is in the same substantial and legal standing) with reference to the compensation, to address its recovery action of amounts paid against the party responsible for the damage. That is because if the insured maintained its action after receiving the insurer's compensation, according to the Italian doctrine (Donati, Gasperoni) it would obtain "a repugnant profit for the compensatory principle of damage insurance". On the other hand, as Viterbo points out, the reimbursement of amounts paid for claims, contributes to a certain extent to improve the outcome of the claims and indirectly affects the determination of future premiums. In short, this institution responds to a concept of justice and equity, and as Donati says "it is the consequence of a legal policy that, except for the insured's enrichment, safeguards the accountability principle" (Manual, page 301). In the same sense, quoting Vivante and Besson and Piccard, Halperin has adequately pointed out that the institution that we are analyzing “is more of legislative policy than strictly legal: as a consequence of the payment of the compensation, the insured party has no interest in pursuing the compensation owed by the third party, that if it was authorized to collect it would cause its undue enrichment; and since the third party should not obtain any benefits from the victim’s contract and remain unpunished for its crime, it must respond to the insurer” (“Insurance”, updated by Barbato, page 810). That transfer to the insurer is produced *ope legis.*

However, this norm has its exception: the subrogation is not possible in personal insurance (i.e. the Argentine law of Insurance Contracts No. 17418 provides that the subrogation “is inapplicable in personal insurance”). I would like to make one thing clear: the insurer may try to obtain the recovery of health assistance expenses, as provided by the Spanish law.

On this specific matter, Italy has expressed that the third parties responsibility for the damage is not excluded if the damage comes from the inappropriate use of new technologies. That is to say, the subrogation does not depend on whether the responsibility was derived from its use. Colombia adds that those responsible for the claim may oppose exceptions against the insurer that might be enforced against the victim, and it extends on the provisional nature of personal insurance what does not exempt it from the possibility of subrogation (except in case of medical or pharmaceutical expenses that can be recovered for their compensatory nature). Chile has informed that even though in principle, the subrogation would be inapplicable in personal insurance, it states however that its legislation does not distinguish between damage insurance and personal insurance; therefore there would be no obstacle preventing the subrogation of these last. At this point, we should make again the question posed by Dr. Quintana in his speech: Is it possible to continue holding the principle that the subrogation is inapplicable in personal insurance?

h. Risk selection.

h1. In your country, are the new technologies of medical diagnosis used for individual life insurance?

The almost unanimous answer was that the new technologies of medical diagnosis are used for life insurance contracting, especially if the insurance involves a significant amount. However, Germany and other countries have outlined that, for the time being, the genetics examination is not required to take out individual life insurance. Japan has pointed out that when new technologies are introduced, certain circumstances must be taken into account, such as the safety of the technology involved, the invasion degree, the cost, etc. Colombia added an important circumstance: even though it gave a positive answer to the question, however it pointed out that these new technologies must be accepted by well-known scientific institutions.

h2. Are there any regulations that restrict HIV diagnostic tests or human genome studies?

It would appear that in general there are no restrictions to the insurer's right to ask the client for a HIV test. Such is not the case when it comes to the human genome. In Spain there are still no regulations that restrict the diagnostic tests to assess life insurance risks. It is usual that for life insurance contracting that involve large amounts, insurers ask for HIV diagnostic tests. The only limit to the risk assessment is the protection of the so called "sensitive data" where the express consent of the client is required in order to protect its intimacy right.

In Switzerland and France, among other countries, the insurers have no right to request genetic exams to take out insurance. Similarly, in this last country, the genetic tests are forbidden. Even the Code of Criminal Procedures bans any discrimination based on genetic characters. In Portugal, the law of genetic data and health information of the year 2005 establishes that the genome investigation must respect the identity confidentiality and guarantee that the scientific community has free access to the resulting data.

South Africa has informed us about its constitutional norms that guarantee that any person has the right to its psycho-physical integrity and not to be the object of medical or scientific tests without its previous informed consent. In Uruguay, the HIV diagnostic tests are regulated by the ministerial authority and in any case must count with the patient's previous consent.

h3. Are there any regulations that restrict the tariff discriminations by virtue of the client's phenotype (related to the environment, ethnic background, demography, etc.)?

It is not easy to find a specific legal regulation on that matter. In Germany, there are norms that restrict the tariff discrimination as regards the age and ethnic composition. In Spain, Italy, France and Hungary those discriminations are forbidden. In Portugal, the no discrimination principle is specifically regulated: No person shall suffer any harm due to genetic disease or inheritance; nobody can be discriminated for the results of heterocigocity evaluations, genetic diagnostic tests, or examinations to take out life or health insurance. The norm adds that no person shall be discriminated for refusing to have a genetic examination, especially to receive medical or psychological treatment.

In Australia, there is a specific legislation that bans the discrimination based on age, race or sex, or for suffering from AIDS. However, insurers can charge extra insurance premiums to cover certain risks. However, requesting a genetic exam can break the law if the intention is not to insure certain kind of people without a solid actuarial base.

h4. In your country's legislation, are there any norms regarding the incorporation of digital images in electronic documents (i.e. X-rays, computed tomographies, echographies, etc.)?

In general, we could notice by the answers from the different national sections that there are no legal norms regarding the incorporation of digital images to electronic documents, what does not prevent them from existing in practice. The progress of medicine and its interdisciplinary conception implies including in the medical records the results of digital images of diagnostic, such as X-rays, echographies, etc. In Japan, the electronic diagnostic that involves digital images must guarantee authenticity, legibility – the possibility to put them in writing if necessary – and due reserve.

h5. In your country, are there any regulations in respect of medical prescriptions and/or recommended treatments issued in digital documents?

From the national reports we could gather that in most countries, for the time being, there is no system for electronic prescriptions.

Notwithstanding, we see that in Germany it is almost admitted that physician issue prescriptions by electronic methods. The so called "health card" – recently implemented –

must be surrounded by several safety requirements (authentication, encryption, electronic signature).

Portugal has specified the provisions of a recent law regarding health data processing that establish that the confidentiality and professional secrecy must be protected at any time. The norm instructs the health service providers to avoid the non authorized access of third parties to the medical records and databases containing information on the people's health, ensuring appropriate safety levels and abiding by the norms on personal data protection to avoid its unlawful destruction, alteration or spreading (diffusion), with the consequent harm to the interested party. In each case, an express authorization shall be required from it.

Australia has pointed out that even though it is possible to issue medical prescriptions by computer, they must bear the physician's signature. It has also provided information about the professional exercise limitations in the different states: a physician qualified in one (state) cannot give by e-mail a prescription in another. The "Medicare" system generalized in Australia prevents paying for a service if the patient has not received personal assistance. Therefore, the doctor can charge the consultation made by e-mail, but the patient will not be able to recover the cost from the system.

h6. In your country, are there any restrictions to the cumulus that is caused when on the one hand the insured receives health or hospitalization services through personal insurance, and on the other files a civil liability claim when the damage to his body – health or death – was caused by the misuse of new technologies?

The "cumulus" of provisions phenomenon has been AIDA's concern since old times to the extent that in 1980 it formed a specific work group that has regularly met since that year. For the sake of brevity, we shall refer to the Report of the Work Group submitted at Sidney Conference in 1994. Its development was in charge of Professor Juan Carlos Morandi, at the time President of AIDA Argentina.

Most countries replies show that as a rule, there are no restrictions to the cumulus, precisely because the cause source of the obligation of one or other provision or compensation is different, such as in the case presented. Consequently, the doctrine has said that "in life insurance nothing prevents that the beneficiary accumulates both actions (the insurance provision itself and that owed by the third party), due to their different origin or cause and the basic characteristic of personal insurance, that has no limit for the insurable value". (Halperín, ob. cit.). Portugal, however, has informed us that its Civil Code considers the concept "unfair enrichment" that makes return the sum obtained in an irregular manner. But this concept, that we can also find in many legislations of a romantic root, is not the substratum of the hypothesis posed in the questionnaire, that responds to the reality that is noticed in practice when on the one hand, the provision of health insurance is received (the cost of which cannot be claimed from the third party responsible, notwithstanding the return action that the service provider may have) and on the other a compensation is also obtained derived from a civil liability action against the party responsible for the body damage due to the misuse of the new technologies.

The electronics in reinsurance

We do not want to end this chapter of the report without briefly referring to the impact of technological innovations on reinsurance. For that reason, we shall refer to an outstanding work of the jurists Nancy Ana María Vilá, of Argentina, and Arturo Díaz Bravo, of Mexico, presented at the last CILA Conference (Ibero Latin American Committee of Insurance Law) of AIDA, held in Guadalajara, Mexico, in March of this year, under the title *The Electronic Reinsurance Contract in Argentina and Mexico".*

As a general consideration, the work points out that the electronic development has already deserved legislative consideration in different countries in order to regulate the private law but also to adequate the public administration in what was called "the progressive *depaperization* of the State" helping to improve its work and encouraging the community access to the computers technology to make the different proceedings through the Internet in a safe manner. The authors quote as support recent norms enacted in Argentina and in Mexico (Decree No. 2628/02 of Argentina, regulation of the Digital Signature Law No. 25506, and different sections of the Mexican Civil Code, recently amended) to consider the Internet operations. But such "*depaperization*" is no longer characteristic of the public sector operations, as we can also find it in the private sector.

For the time being, the e-reinsurance (electronic reinsurance) "can only be seen in optional reinsurance, as by rule the automatic contracts are still object of documentary expression on paper and their renegotiation, year after year, demand many consultations at corporate level, the analysis of the claim rate and backlog of payments, actuarial calculations, and many other details…now we are facing a computer mechanism that uses a word transmission system that not long ago was unknown and that technicians have baptized as “cyberspace”, term not easily understood by those who know nothing on the subject, and with even more serious legal consequences”.

Drs. Vilá and Díaz Bravo make a halt to analyze the moment when the contract is perfected and the importance of good faith that is still a note of singular significance in reinsurance, commenting that anyway, according to the new electronic regulations of their countries – Mexico and Argentina (even though in the latter the Civil and Commercial Codes that consider the electronic contract have still not been amended) – “the requisite of formality must be deemed as satisfied as long as the information contained in a data message be maintained complete and accessible for later review, whichever the format that may be adopted”. We would like to add that as we could see, certain aspects must be considered such as the law applicable to the contracts entered into through the Internet; the authentication of such contracts; the probative value of the digital records¸ the protection of privacy; the civil liability derived from the use of electronics, etc., all aspects that in some way we wanted to include in the questionnaire submitted to the national sections and that deserved the well grounded and exhaustive answers of AIDA's countries that we have considered throughout this document.

Finally, the aforementioned jurists point out – in concepts that perfectly apply to insurance and reinsurance – that “it is easy to notice the dangers and complications that in practice this (electronic) mechanism may pose, that appear in words lacking any legal meaning and also difficult to understand for those who are not familiar with the computer vocabulary The legal effects of the aforesaid can be immediately appreciated: strange terminology, full of – fatally perhaps – technical and therefore exceedingly confusing expressions, that the legislator imagines regarding the parties to the trial and the judge, what certainly wishful thinking is. We have gone through innumerable problems posed by the e-commerce, such as for example, the consequences brought by the more or less extended lack of electric power; the telephone line or server failures or ruptures; the computer pirates’ (hackers) action; the devastating effect of viruses; the breaking of equipments, etc.

“And however, the electronic contracting is already there; it will continue growing uncontrollably. Then perhaps the best attitude is to be well prepared with our legal tools to face up to these new forms of communication or, as it has been said, to this young Internet law that still has not come of age, but that already shows some signs of maturity that gives us a reason to be reasonably optimistic". (Minutes of IX CILA Conference, pages 399 and following).

Anyway, the mentioned jurists outline that "executives of European insurance companies still debate whether online reinsurance is convenient and consider that the conditions for a parent website are not given yet as "they are still very far from being able to provide standards of information as they lack standarized products" ("GR Global Reinsurance", London. Sept. 2004, "Going Digital").

PART II

THE HUMAN GENOME PROJECT AND PERSONAL INSURANCE

THE HUMAN GENOME PROJECT According to AMGEN International scientists, the Human Genome Project is a research program at world level to determine the exact localization of the 50,000 to 100,000 genes that are deemed to form the human genome, as well as completely deciphering the genetic instructions contained in the human DNA and determine what each of our genes is for.

In order to handle the enormous amount of information contained in the human genome, the project established three objectives of increasing complexity. The first of those objectives, already reached in 1994, was to create a genetic map to allow researchers locate each gene, not only in one of the 46 chromosomes, but within a restricted zone of the chromosome in question. These genetic maps allow the scientists who are interested in studying a genetic alteration or disease to focus on a specific zone of the genome.

The following level of detail in the genome research is what is called the physical mapping. That is essentially a genetic map on which the exact location of a gene is determined. That is to say, if as comparison we use a city map, the genetic map indicates in what "neighbourhood" we are moving around, while in the physical map we can locate the "street" where the gene in question is located.

Finally, the third level of complexity of the genome project implies the DNA sequentiation. The exact sequence of nucleotides tells the researchers not only where the gene is located, but also how the gene can give place to a certain disease. Going back to the map analogy: If the genetic map shows us a neighbourhood and the physical map places us in a street, the DNA sequence finds the house and describes not only the façade, but even what is inside it. Such detailed information allows identifying errors at a genetic code level and consequently, it may allow to design the necessary strategies to repair the error, that is, to cure the disease originated by such error.

In these last years, the DNA sequentiation technology has progressed, it has become automated and less costly. Scientists now are able to sequence more than 15 million base pairs per year (the human genome approximately has 3,000 millions). The complete genetic sequences of many organisms have been obtained, including bacteria and yeast. On April 5, 2000, the biotechnology company Celera Genomics, announced that it had reached the human genome sequentiation. In fact, it is a first draft, 85% of which must be correct. In April 2003, the scientists announced that the genetic map had been completed.

However, obtaining such powerful information can trigger important ethical dilemmas. For example, the insurance companies, the employers, the pre-paid medicine, will they have access to the genetic information of their insured, workers and clients? If a test could tell you whether you can develop an incurable disease, would you be ready to take such test? Consequently, besides its technical objective of completely mapping the human genome and design the tools to analyze this information, the human genome project has also created debate forums to explore the non medical implications of this project and will serve as field for the basic formation of students and scientists.

That is why at the International Law Meeting Regarding the Human Genome Project (Bilbao, Spain, May 1993) the so called “Bilbao Declaration” expressed the *“rejection to the use of genetic data that may produce any discrimination in the spheres of working relationships, the insurance or any other”.*

This declaration had already been preceded by another in Valencia, in 1990 that said that: *“As a general principle, the genetic information of an individual should only be obtained or revealed with the authorization of such individual or its legal representative. Any exception to this principle requires a strong legal and ethic justification”.*

In June 1991, the French National Advisory Committee of Ethics France stated to be in favour of a regulation of the genetic studies technique. "*In order to avoid any abuse, the Committee understood that the access to the data contained in the genetic data record must be forbidden to third parties (especially employers and insurers) who cannot either demand such information from the interested parties.*

In 1989, the European Parliament had already adopted a resolution on the ethical and legal problems posed by genetic engineering[a] that favoured the total prohibition of the use of genetic tests and genetic information in insurance: "*The insurance companies have no right to demand the realization of genetic tests before or after formalizing an insurance contract or to demand to be informed about the results of this kind of tests that have already been taken, and the genetic analysis shall not be a requirement for the formalization of an insurance agreement, establishing that the insurer has no right to be notified by the holder of the policy about any genetic data that this last might be aware of*".

As we can see, the main risks of genetic discrimination arise, in principle, from work and insurance. And no wonder it is, as if we think that if the genetic information were used by insurers and employers we would have a new category of discriminated people, that in some moment were classed as the "pariahs of the year 2000" and that I would dare to call "dead alive". Let us just imagine a person who cannot work, who has no access to life and health insurance and the result will be the same, people discriminated and desperate. We shall be then in *"a situation that we call the exclusion in law, incarnated in subjects that after certain events remain alienated, excluded from using the tool of the legal system in several aspects*[1]*"*.

DISCRIMINATION:

To discriminate means "to separate, distinguish", according to Codex Encyclopedic Dictionary, page 481, Codex editorial, 1961. In a broader

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[a] "Conf. KEMELMAJER DE CARLUCCI, Aída "Legal Aspects of the Human Genome Project", ED. E.D. T. 153, pag. 929/945).

[a]O.J. C96, 17 April 1989.

[1] GHERSI, Carlos A. "The Legal Posmodernism", *La Ley*, 8 May 1997, year LXI No. 88

sense, it means “the differential treatment of individuals that are considered to belong to a certain social group[2]”.

In the Argentine Republic, the problem of discrimination is considered in law 23592 (AdLA XLVIII-D-1988), enacted on August 23, 1988 and published in the Official Gazette on September 5 of the same year. In section 1, it establishes that *“Whoever arbitrarily prevents, obstructs, restricts or in any way does not allow the exercise on an equal bases of the rights and guarantees stated in the National Constitution, shall be forced, at the request of the damnified, to abandon or stop the effect of the discriminatory act and to repair the moral and material damage caused.*

To the effects of this section the acts or omissions determined for motives such as race, religion, nationality, ideology, political or professional opinion, sex, economic condition, social status or physical characteristics shall be particularly determined as discriminatory"

The question to be made now is if the genetic discrimination is included in the discrimination for "physical characteristics" mentioned in the second paragraph of section 1 of the law. In principle, it would appear that the term is referred to those whose physical appearance presents defects. In a second analysis we should consider if the concept “physical characteristics” would enclose the mere probability of getting ill for carrying a gene that might eventually cause certain pathology. In our opinion, the mentioned expression would not enclose genetic problems, so we consider that the law should be amended adding to the second paragraph of section 1: “and/or genetic”.

The Argentine Constitution (1994) included a series of norms, apart from those existing, against discrimination of different kinds. Section 75, subs. 17 protects the natives’ rights. In subs. 22, grants constitutional rank to the various international treaties that protect the individual rights. Subs. 19, referred to the human development, rules out any type of discrimination. The legal action of defence regulated by section 43 provides that it can be filed against any form of discrimination. Section 86 entrusts the public defender with “…the defence and protection of human rights and other rights and guarantees provided by this Constitution...[3]"

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[2] KIPER, Claudio Marcelo “The Discrimination”, *La Ley*, Vol. 1995-B, pag.1025/1034

[3] ”(Conf. KIPER, Marcelo C., quoted word)

GENETIC DISCRIMINATION AND THE INSURANCE:

The insurance has been and is a great advance for humanity, as through it the individual risks are moved towards a community of ensured that will jointly support them for a money consideration called premium. The insurers, that have to organize and manage this ensured community, try to find an equivalence between the premium and the risk, and the more the latter is reduced the more the benefit, as the premium may decrease in the same proportion as the risk or, if its value is maintained, the insurer's profits will increase.

That is why genetic discrimination in Insurance Law will surely apply to personal insurance (life, death, accidents) and to health insurance and pre-paid medicine. In any case, the insurers will try to diminish the risk as much as possible trying to know in advance, through the potential client genetic map, not only if it is ill, but also the possibility that it may be.

We should then ask ourselves if it would be fair, that the insurer demanded a genetic exam before entering into a life or death contract, especially taking into account that so far the insurer deems necessary to know the state of health of the potential insured and makes sure about it through questionnaires and medical exams with the consequent clinical tests that it deems necessary.

That is why the genetic exam has an enormous significance that is positive for the insurer for the risk decrease, and negative for the individual that is trying to take out insurance, for the discrimination that he will suffer paying a higher premium or for the insurer's negative to enter into a contract.

We think that the insurer will not request genetic exams in every case since *prima facie*, in some types of insurance that would not be necessary because the risk decrease would be negligible. Such is the case with accident insurance where the genetic map would only inform about the possibility that the person caught a disease that increased the risk of suffering an accident. A clear example would be the genetic tendency to contract epilepsy that, in the case of having an attack while driving it will surely cause an accident.

In the case of death insurance we know for sure that it will occur. The risk then, is the physical disappearance of the insured. That is to say that the risk uncertainty is relative, as the only thing that is ignored is the moment when that event will take place.

In life insurance (survival) the risk is surviving after a certain age or date.

In both cases, the genetic exam would be important for the insurer, as to begin with, it might make a risk selection taking into account the estimated lifetime of each future insured, surely rejecting those people whose death is estimated to occur in a short term. And it will significantly increase the premium to those in the medium term. Those whose life was estimated that will be long will have no problems, as the situation will continue as it was until this date, even in the cases of survival. The aforesaid has been corroborated by the attitude assumed by some English insurers that in 1999 asked in secret their potential clients to undergo some tests to determine the genetic risks and restrict the policy coverage[4].

We must now give answer to the question asked before as to whether it would be fair that the insurer requested a genetic examination to those people that want to contract a personal insurance.

The Argentine law uses the word “arbitrarily” to define those subjects that discriminate other people; what means that the discriminatory act is related to the unfair, since it is there where the right to equality is harmed.

We enter then into the sphere of the insured personality’s rights, understanding that these must prevail over the interests of the insurer and even over the insured community, since even though the interest of all and each of them would be to have premiums as low as possible, *“that material interest is against the personal interest of the same insured in not having to reveal their genetic condition*[5]*”*

This is intended to protect the very personal rights of the insured that include the right to the equality, dignity and free development of the personality. It is about acknowledging *“the existence of a right of informative self determination . . .. that guarantees the potential*

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[4] *Ambito Financiero* (Buenos Aires) , 28 July 1999, pag. 18, quoting “The Independent”.

[5] Conf. MENÉNDEZ MENÉNDEZ, Aurelio “The Genetic Code and the Insurance Contract“ “The Law Before the Human Genome Project”, Volume III, pag. 41, BBV Foundation, Madrid 1994

insured the decision on the realization of a genetic examination and consequently, on the possible use of the genetic data[6]*".*

And that is so because as the quoted author sustains, according to Pérez Luño there is a "right to not know" or a "right to the unknown". Let us imagine for one moment that in order to contract insurance we were asked to undergo a genetic exam out of which a series of probable genetic diseases might turn up that could even cause our death in a certain term. Setting aside whether that will certainly happen, we shall be able to live as we did before the exam or our life will change substantially as we most likely will start suffering anguish, depressions, etc. that can be even much more serious than death itself.

That is why each person's right to "not knowing about itself more than what it really wants" must be protected beyond any doubt.

According to Andrea Signorino Barbat (Uruguay), demanding genetic examinations by the insurance company is legitimate as long as the consent of the potential insured is requested and provided that "the rejection to the risk acceptance be fully and professionally grounded[7]".

Joaquín Alarcón Fidalgo assumes an innovative position when, looking into the future, speaks about "the necessity of a change of mentality". The prestigious Spanish author says: *"The change might be based on the issue that this is not that the genetic information can (only) be used to exclude from the coverage pre-existing diseases or their future treatment or to increase the premiums, but that such tests can be used to prevent or treat the diseases in time or even delay the appearance of the insured contingency.*

This can be the situation when the emotional scenario, the sensitivity in respect of this matter changes, at that moment when the tests become widely spread, among other reasons for some of those mentioned before, and economically attractive, it is evident that the

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[6] MENÉNDEZ MENÉNDEZ, Aurelio, quoted work

[7] "SIGNORINO BARBAT, Andrea, "The Human Genome and the Personal Insurvance", paper submitted at the IX Ibero Latin American Insurance Law Conference, Guadalajara, Mexico, March 2006

negative perception of the individual will change, and the emotional factor shall be replaced by the rational factor, and the economy of the private insurance will be able to make an enormous contribution to the humanity through the prevention derived from such tests.

The genetic medicine shall play a decisive role in this matter, even when at these moments it is in its initial stage; part of its funding can and must be in charge of the insurers; the somatic gene therapy is a new process of medical treatment; by such procedure, for example it is possible to correct and even substitute distortioned functions in the human cells.

All these thoughts can take us to consider a new scenario, not so much tinted by the subjective aspect (the intimate feeling that the personality rights are damaged) as by the objective aspect, that is to say the conviction of the social function of private insurance through the prevention of the human being predispositions.

The genetic test, not constrained by legal norms or mentalities, can help to identify and assess the risks that genetically surround the individual, making a diagram of its dangerousness; that would entail investigating the impact of that dangerousness in the biomedical and biological research, but also in clinical medicine. The result of it can be an improved diagnosis or else an early detection of the genetic predisposition to diseases. All that, from the point of view of the insurance technique, should be enclosed within the wide complex of the reasonable precautions to be taken by the insured to avoid the damage or claim or else to reduce its consequences.

In order to fix the reserve, it is evident that the genetic tests, as long as they discover the present-future, represent a giant step, giving consistency to the fixation of late claims and avoiding abstract models which are not always right.

Even though the quoted opinions differ substantially from ours, we do not criticize them as we understand that the matter is new and therefore temporary, as the technological innovations in genetics have not concluded yet and therefore, other different conclusions may appear in the future.

Different would be the case of the possible insured that has already undergone a genetic examination and knows the results. Here we think that it will have to inform that circumstance to its insurer as *"besides the good faith that is an* *essential element of the insurance contract*[8]*"* the insured has the duty to inform about all the circumstances known by it, on pain of misrepresenting the facts (section 5, law 17418).

MISREPRESENTATION OF FACTS: In the Argentine Republic, the misrepresentation of facts is legislated in sections 5 to 9, and 130 of law 17418. Section 5 defines the misrepresentation of facts as: *"Any false statement or misrepresentation of circumstances known by the insured even though made in good faith, that in the experts' opinion had prevented the contract or changed its conditions, if the insurer had been advised of the true state of the risk, makes the contract void…* Section 130, regarding life insurance, establishes that the misrepresentation of facts shall not be alleged by the insurer after three years of entering into the contract, unless it is fraudulent. At the same time, section 7 provides that in life insurance, when the insured acted in good faith and the misrepresentation of facts were argued within the period established in section 5 (3 months after becoming aware of the misrepresentation of facts or falseness), after the claim occured, the coverage will be reduced if the contract were readjustable pursuant to section 6 (the readjustment can be imposed onto the insurer when the nullity were harmful for the insured, to the extent that the contract were readjustable according to the experts opinion and it had been entered into according to the insurer's commercial practice.

Going back to the subject of section 130, we must ask ourselves if the three year period will still be valid when the insurer had questioned the insured, in the previous questionnaire, whether it has undergone a genetic exam and this, concealing the truth, gave a negative answer. I think not, as when it gave a negative answer the insured incurred in fraudulent misrepresentation of facts and therefore, the maximum period of three years to invoke the misrepresentation of facts will not be valid. Consequently, the exception provided by section 7 will not be effective either and the insurer will be entitled to request the contract nullity.

This posture has been confirmed by the Courtroom I of the French Court of Appeal, when it said that: *"Considering, that in order to guarantee the payment of a loan granted by a bank, Gaëtan P., adhered in 1990 to a collective insurance subscribed by the bank with Generali firm destined to cover death and disability risks; that in the form*

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[8] HALPERIN - MORANDI, "Insurance", pag. 50/51, Depalma Publishers, 2nd. edition, year 1991

of adhesion it responded negatively to the questions: “Do you suffered from any disease? Have you undergone or must regularly undergo any treatment? Have you anything to add concerning your present or previous state of health?”; that in order to justify the cessation of its working activity, as of the 1st of March of 1991, and its disability it sent to the insurer that had asked for a guarantee, a medical certificate stating the following:“HIV seropositive after 1989"; that afterwards it filed a complaint against compañía Generali so that it was condemned to take in charge the loan restitution; that this company, asserting that the work cessation had been the consequence of Gaëtan P. seropositivity, known by the latter when it underwent the prenuptial examination, in August 1989, counterclaimed by nullity of the adhesion due to misrepresentation of facts or intentional false statement for application of section 113-8 of the Insurance Code; that after the death of Gaëtan P. in 1993, the process was taken up again by its wife.

Considering that Mme. P. complaints against the sentence that she contradicts (C.A. Rennes, 11-9-95) for having overruled the counterclaim since the seropositivity is not a disease; that the Court of Appeals has violated sections L 113-2 and L 113-8 of the Insurance Code when it considered that her husband, that then was not under any treatment, was guilty due to misrepresentation of facts or intentional false statement for having omitted, at the time of its adhesion, to spontaneously indicate his seropositivity to Generali as in the health questionnaire he had only been asked whether he was aware of suffering from a disease or if he was undergoing a special treatment.

But considering that the Court of Appeals has understood that the seropositivity is a condition that produces serious consequences, even death, for the health of the person affected; that it has been verified that at the moment of Gaëtan P. adhesion he was aware of his seropositivity as he had been informed about it before; that by the state of these statements and verifications, it has been understood that exercising its supreme powers of interpretation, that responding negatively to the questionnaire Gaëtan P., for misrepresentation of facts or intentional false statement, let the insurer believe that he was in good health condition affecting the risk opinion that he had to guarantee; that the Court of Appeals then has grounded its decision.

That, in consequence, the appeal cannot be accepted.

For these reasons:

The appeal is rejected.

Mme. P is condemned to pay the legal costs.

Pres. M.Lemontey; speaker Mme. Marc; general attorney, Mme. Pétit; lawyers M. Balat, SCP Peignot et Garreau.[9]*"*

The example is valid since the seropositivity only means the possibility to contract the disease but not the certainty that it will happen.

The problem that is now posed is in what manner the insurer will have to behave when it receives the genetic exam presented by its insured. Will he be able to reject it? Will he be able to charge an extra premium?

THE PROBLEM IN THE FOREIGN LEGISLATION:

In 1989, the State of Arizona became the first to establish some protection when it decided that generic diseases should be deemed as a cause of the unfair discrimination forbidden but allowing the insurers to take into consideration the genetic risks that might substantially affect the actuarial predictions.

In 992, the State of Florida issued a norm providing that the informed consent had to be required when requesting a DNA analysis. The results cannot be revealed without the consent of the analyzed person, but insurers are entitled to use the result to determine the client's elibility and tariffs, provided that the analysts reveals them to the person analyzed.

Some months later, Winconsin enacted what seems to be so far the strictest norm. This state legislation prohibits the insurers and employers to demand genetic exams and request information on previous tests. Insurers cannot subject the coverage to the realization of a genetic test or determine the tariffs based on test results. However, none of these restrictions is valid for life insurance companies, which are only expected to act in a reasonable fashion at the time of establishing the tariffs based on genetic data.

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[9] KEMELMAJER DE CARLUCCI, Aida, "The Life Insurance and the Seropositive in the French Court of Appeals", Magazine of Private and Community Law, Vol. 20, "Insurance II", pag. 111/128, Rubinzal Culzoni Publishers, year 1999.
FERNÁNDEZ DEL RIESGO, Manuel "The Postmodernism and the Crisis of the Religious Values", pag. 89, "About Postmodernism", Vattimo G. *et al*, Anthropos Publishers, year 1994

There seems to be a contradiction in the aforementioned norms as insurers are exempted from the prohibition to demand genetic tests or ask for their results, precisely in life insurance where genetic information has a greater significance.

In our opinion, the matter is related to the philosophy that prevails in the world: the posmodernism. The Spanish philosopher, Manuel Fernández del Riesgo says that: *"In general terms, postmodernity gradually took shape in our discourse by the following characteristics: pragmatic-operational mind; fragmented view of reality; relativist anthropocentrism; social atomism; hedonism; commitment renunciation and institutional dissociation at all levels, political, ideological, religious, familiar, etc. To some extent, all that is the consequence of the defeat of the illuminist rationalism and scientific positivist ideal, unifiers of the modern project[10]".*

The norms in question begin by making a declamation of personality rights above insurers and employers' economic rights, but in the end they make prevail these last over the first when it allows that genetic exams be used in life insurance. Some features of postmodern philosophy can be clearly noticed. The "anthropocentrism" (doctrine that considers man as the universe centre and most important object) is made dependable from the economic interests of life insurers. The "pragmatic operational" mind comes up as a consequence not only of the abovesaid, but also due to the "reasonable behaviour at the time of establishing the tariffs" demanded from insurers that will surely have more than enough reasons to increase them. The "fragmented view of reality" appears when the economic interests of a sector are made to prevail above the very personal rights. The society is thus atomized, dividing it into small sectors regardless of the consequences that it may bring.

The postmodernism is a philosophy that prevails at world level. Every day we can see examples where the objective values have been lost and all the individuals or groups have "reasons" which are superior to those of the others. Anyone can say anything, without having the slightest knowledge of what it is saying. That is confusing and makes us loose sight of the problems that must prevail. Like pendules we

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[10] FERNÁNDEZ DEL RIESGO, Manuel "The Postmodernism and the Crisis of the Religious Values", pag. 89, "About Postmodernism", Vattimo G. *et al*, Anthropos Publishers, year 1994

swing from one side to the other and then for the sake of economic freedom, that we do not criticize, people’s rights are severed until they are left practically defenceless.

As Carlos A. Ghersi well says *“The apparent legal relationships generated in the nineties – i.e. equal opportunities – contrast with the real practices of the structural and systematic exclusion*[11]*”*

In this context, we must then think that the personality rights constitute a very special and essential category of man’s nature that must be above any other.

Within this last principle falls the project of the President of the United States of North America, Bill Clinton that tends to prevent that insurance companies discriminate healthy people that, based on their genetic information, might suffer future health problems. This project dates from the month of July 1997.

On the other hand, the Insurance Code of the State of California forbids asking genetic exams to their clients without the written consent of the affected party, based on strict confidentiality.

More recently in February 2005, the United States Senate passed the Genetic Information no-discrimination Act (S-306) that would forbid insurers, both individually and as a group, either request or use genetic information for contracting or defining health insurance premiums. This project has still to be approved by the Congress (House of Representatives, H.R. 1227)[12]

In some European countries the problem has given place to diverse solutions.

In the first place, the group of countries that under the light of scientific and technological innovations and due to the present lack of sufficient relevant and precise tests, adopted a formula of voluntary moratorium on genetic tests. The moratorium, a waiting period before adopting a precise legal position on this matter, can be either for a fixed period or for an indefinite period. In some cases, the moratorium is only applied in the case of policies for a

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[11] GHERSI, Carlos A. “The Legal Posmodernism”, *La Ley*, 8 May 1997, year LXI No. 88

[12] ALARCÓN FIDALGO, Joaquín, “The Personal Insurance and the Human Genome“, paper submitted at the IX Ibero Latin American Insurance Law Conference, Guadalajara, Mexico, March 2006

sum of money insured that does not exceed a maximum amount. France, Finland, Germany and the United Kingdom apply or applied this method to postpone a final decision on the acceptability of the new technologies. Great Britain sustains a special position that will be specified later.

A second group is integrated by those countries that apply the so called “limit system”; that is a system established by law or based on codes voluntarily adopted, according to which the genetic tests will only be approved in the event of contracts in which the insured sum exceeds a certain amount. This system allows the insurer to prevent the antiselection and leaves the potential insured the chance to do it within certain limits, without having to reveal its genetic condition. The Netherlands and Sweden are examples of the model where genetic tests can be used when certain insured amounts are exceeded and only with the interested party’s consent.

Great Britain holds a special position as it resorted to a self-regulation system. In October 2001, the government and the Association of British Insurers (ABI), entered into an agreement that establishes a five year moratorium for the use of genetic tests results in life insurance and for critical disease insurance, below (high) levels of insured sums. In the case of contracts that exceed these sums, the continuous use of genetic tests results could only be accepted with the Genetics and Insurance Committee authorization.

Finally, a group of countries banned the use of genetic tests in the insurance sector. For example, such is the case of Austria (since 1994), Belgium (since 1992), Denmark (since 1996), France (Section 16-10 of the Civil Code includes a norm on studies of genetic characteristics, Portugal (law 12/2005 and Switzerland[a].

In Latin America, practically no legislation has been enacted, with the exception of Colombia that at criminal level, categorizes as crimes, cloning, genetic manipulation and non consented insemination, and the Republic of Argentina, where law 25326 of Personal Data Protection enacted on 30/10/2000, establishes a special protection system for sensitive data, including medical data, that prevents its use and that can only be collected and object of treatment for reasons of general interest or with statistical or scientific purposes, in this case duly dissociated. On the other hand, the Legislature of the City of Buenos Aires relies

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[a] Conf.: Answers to the Questionnaires “The Influence of Scientific and Technological Innovations on Personal Insurance”, made by A.I.D.A. Belgian section

on Law 421 of “Protection against discrimination for genetic reasons”, of June 28, 2000, that bans the realization of genetic studies in pre-occupational examinations, social service examinations, pre-paid medicine or occupational hazard insurance companies. This prohibition encloses the Legislative, Executive and Judicial Powers, municipalities, decentralized bodies, autarchic entities, State companies and corporations with State majority holding, mixed economy corporations and all those bodies or entities where the City has any share in the capital or in the corporate decision formation.

ANSWERS OFFERED TO THE QUESTIONNAIRE BY THE COUNTRIES CONSULTED

The Asociación Argentina de Derecho de Seguros, A.I.D.A. national branch, host of the XII A.I.D.A. International Insurance Conference, and speaker in theme 2, “The Influence of Scientific and Technological breakthroughs in Individual Insurance”, prepared a questionnaire, as generally done in Conferences of this kind, which the AIDA National Sections were asked to answer. The questionnaire dealt with the Human Genome and Individual Insurance, and fourteen (14) questions were answered by 20 countries: Germany, Australia, Belgium, Brazil, Colombia, Denmark, Equator, El Salvador, Spain, France, Greece, Hungary, Indonesia, Italy, Japan, Paraguay, Portugal, South Africa, Switzerland and Uruguay. The fourteen (14) answers are included followed by the answers provided by each country. Most of these answers are textual, following the translation we received, except for those sent by Belgium and Greece which, instead of answering question after question, provided a global answer. In these cases, the answer to each point was taken from those texts.

1. Has legislation been passed in your country in relation to the Genome Project? If so, could you please summarize the most important aspects?

1) Australia

Some specific Australian legislation in the context of the Human Genome Project passed so far can be summarized as follows:

PROHIBITION OF HUMAN CLONING ACT 2002 –

An Act to prohibit human cloning and other unacceptable practices associated with reproductive technology, and for related purposes.

PROHIBITION OF HUMAN CLONING ACT 2002 - SECT 3

Object of Act. The object of this Act is to address concerns, including ethical concerns, about scientific developments in relation to human reproduction and the utilization of human embryos by prohibiting certain practices.

PROHIBITION OF HUMAN CLONING ACT 2002 - SECT 7

The *Gene Technology Act 2000* is amended as set out in item 1 of Schedule 1.

RESEARCH INVOLVING HUMAN EMBRYOS ACT 2002 –

An Act to regulate certain activities involving the use of human embryos, and for related purposes

RESEARCH INVOLVING HUMAN EMBRYOS ACT 2002 - SECT 3.

Object of Act. The object of this Act is to address concerns, including ethical concerns, about scientific developments in relation to human reproduction and the utilization of human embryos by regulating activities that involve the use of certain human embryos created by assisted reproductive technology."

1) Belgium

Yes, under the Belgian Act of 25 June 1992 (on Insurance Contracts) and, in general, according to the subscription or ratification of International Declarations.

1) Brazil

In Brazil, Act 11.105-2005 sets forth security regulations and creates control instruments into the activities carried out with genetically modified organs. (http://www.presidencia.gov.br/CCIVIL/_Ato2004-2006/2005/Lei/L11105.htm)

1) Colombia

Yes. Sections 132, 133 and 134 of the Criminal Code, Act 599 of July 24 2000 –amended by Act 890 of July 7 2004 and Act 906 dated August 31-, defines cloning, genetic manipulation and non consensual insemination as crimes. These sections are included as follows:

"*Section 132. Genetic Manipulation. Whoever manipulates human genes, altering the genotype with a purpose different from the related treatment, diagnosis or scientific research in the field of biology, genetics and medicine, intended to reduce pain or improve the health of the individual or humankind, shall be punished with imprisonment for a term of one (1) to five (5) years.*

"Related treatment, diagnosis or scientific research in the field of biology, genetics and medicine refers to any treatment, diagnosis or research carried out with previous free and informed consent by the person providing the genes to discover, identify, prevent or treat genetic or genetically influenced illnesses or disabilities, as well as rare and endemic diseases affecting a considerable part of the population.

"Section 133 Human Cloning. Whoever generates identical human beings as a result of cloning or any other procedure shall be punished with imprisonment for a term of two (2) to six (6) years.

"Section 134 Fertilization and Human Embryos Traffic. Whoever fertilizes human eggs for a purpose different than human procreation, without prejudice to the scientific research, treatment or diagnosis with a therapeutical end in relation with an individual being the subject of an investigation, shall be punished with imprisonment for a term of one (1) to three (3) years.

Identical punishment shall be applied to any person that traffics human reproductive cells, cigotos or embryos, obtained in any manner whatsoever."
These rules have proven quite controversial; in fact, the definition –with no further analysis- of certain behaviors as crime stops the research in strategic areas of knowledge.
Under Act 208 of 1995, Colombia adhered to the "estatuto del centro internacional de ingeniería genética y biotecnología", approved in Madrid on September 13 1983 which specifically deals with the need to establish international cooperation mechanisms to assist in the investigation, development and training of genetic engineering and biotechnology to solve the problems posed by development."
Further, resolution No. 008430 issued by the Department of Health sets forth scientific, technical and administrative rules governing health investigations.

1) Denmark

No, but a series of special rules will be applied in the use of Human Genome material.

1) France

France has signed and ratified the UNESCO world declaration on human rights and bio medical practices. An EEC Convention on these questions is in force.

1) Germany

On the 26th of November 2004, the German Parliament passed the Genetic Engineering Act (Gentechnik-Gesetz). Generally speaking, it has two goals. On the one hand, it aims to protect the life and health of the people, animals and plants from potential dangers resulting from the use of genetic procedures and products. On the other hand, the Act constitutes the legal frame for developing, utilizing and promoting possibilities of genetic engineering.
One of the main objectives of the Act is to prevent the conventional and ecological farming from genetic manipulated contamination. Thus, the farmer who does not control the genetic engineering of his field properly is liable for the contamination of genetic free fields he caused when his pollens are blown over by the wind.

1) Greece

To this date, Greece has not passed a special law regarding the gathering and processing of genetic information and there is no special legislation on insurance. Therefore, any doubt on this matter can only be answered in the light of the general rules and decisions on collecting and processing personal data, the constitution and general rules applicable on insurance policies.

1) Italy

No. On the other hand, Italy has participated in the Genome Project in 1984 - 1994. In fact, since 1995, financing has been suspended.

1) Japan

Yes. It is forbidden to transplant human embryo clones in human beings or animals (punishment is applicable in any case). Certain measures have been taken to ensure the proper use of human embryo clones and embryos similar to those of human beings (specific embryos). (The Guide on the use of Embryos, *La guía del uso de embriones*, which established restrictions on its use, instructions to change projects, instructions on inspections, measurements and other.

1) Portugal

The law on personal genetic information and information on health (Act 12/2005 of 26 January) defines the concept of information on health and genetic information, the circulation of this information and interventions into the human genome within the health system, as well as the regulations for collecting and storing biological products for genetic testing or research.

Under the terms of Act 12/2005, genetic information is considered to be:

- Genetic information and information on health which deals with the hereditary characteristics of one or more individuals who are related to each other or share common characteristics of this kind. Information derived from parental testing, zygosity studies of twins and genetic identification studies for criminal purposes, as well as studies on somatic genetic mutations in cancer is excluded from this definition.
- Genetic information may be the result of molecular biology genetic testing or may result from imaging, cytogenetic, biochemical or physiological testing or the simple gathering of family information recorded in the form of a family tree or similar, each of which may, in itself, express the genetic status of an individual and his relations.
- Genetic information becomes medical in nature only when it is destined to be used in the provision of health care or medical treatment within the context of confirming or eliminating a clinical diagnosis, in pre-natal or pre-implantation diagnoses or in pharmacogenetics. This therefore excludes information resulting from predictive tests for susceptibility to common diseases and from pre-symptomatic tests to monogenic diseases.
- Genetic information which does not have immediate implications for the current state of health, such as the results of paternity tests, zygosity studies of twins, the results of predictive tests – with the exception of genetic tests for suitability for medicines – and of heterozygosity, pre-symptomatic, pre-natal or pre-implantation testing cannot be included in medical records, except in medical genetics cases, which have their own separate files.
- Medical records for medical genetics cases or services cannot be accessed, made available or consulted by doctors, other health care professionals or the staff of other services within the same institution or other institutions within the health system if they contain genetic information on healthy individuals.
- Genetic information must be subject to protective legislative and administrative measures which reinforce levels of access, security and confidentiality.

- The use of genetic information is an act which involves the owner of this information and his doctor and is subject to the deontological rules pertaining to the professional secrecy of doctors and other health care professionals.
- The existence of any work-related links between doctors or other health care professionals and any business activities, including insurance companies, professional bodies or providers of goods and services, does not justify any lessening of the obligation to maintain the confidentiality by which they are bound.
- Citizens have the right to know whether medical records, files or any medical or research data contains genetic information about them and their family and to know the purpose and uses for which it is destined and how and for how long it is to be stored.

1) Switzerland

Not to this date; however, the Law of October 8 2004 deals with this issue, and it will presumably enter into force on January 1, 2007. The Federal Bill on Genetic Tests on Human Beings is enclosed. Insurers are not entitled to request genetic exams before underwriting an insurance agreement. An interdiction of examination as well as an interdiction of investigation will be stated.

1) To this date, Ecuador, El Salvador, Spain, Greece, Hungary, Indonesia, Paraguay, South Africa and Uruguay have not passed any legislation in this regard.

2.- Has legislation been passed on the Genome Project and individual life insurance in your country? If so, could you summarize the most important aspects?

2) Australia

As part of an analysis conducted by the Australian Law Reform Commission, their report number 96 was published in 2003 on the state of Genetic Information in Australia and titled: “ALRC 96 Essentially Yours: The Protection of Human Genetic Information in Australia”.

This Report reflects the law as at 14 March 2003.

Part G of this report detailed the use of genetic information IOF (Information Observation Finding) as follows, which is a good summary of he current position in Australia.

Part G. Insurance

25. The Use of Genetic Information in Insurance

Introduction
Personal insurance in Australia
Mutually rated and community rated insurance
Applicant’s duty of disclosure
Insurer’s decision
Insurer’s duty to provide reasons

25. The Use of Genetic Information in Insurance

Introduction

25.1 The Australian insurance industry is one of substantial economic importance. Among the full range of products, general insurers collected $16.5 billion in premiums and paid $11.4 billion in claims up to September 2002.[1] During the same period, life insurers operating in Australia received $41 billion in premiums and paid $38.5 billion in claims.[2] During the 2001-2002 financial year, private health insurers collected $7.2 billion in contribution income and paid over $6.5 billion in benefits.[3]

25.2 The purpose of insurance is risk distribution, that is, to spread risk across a large pool of individuals. Insurance provides a mechanism by which individuals who pay an agreed sum, known as ‘premium’, can be indemnified against future events that may cause loss. The predictive nature of genetic information means that it is potentially very significant in this context. Insurance companies, especially life insurers, have collected and used family medical histories for well over a century.[4] More recently, access to information derived from genetic testing has drawn attention to the potential use of genetic information by the insurance industry in Australia and overseas.[5]

25.3 Concern about the use of human genetic information by the insurance industry was one of the factors that led to the establishment of the present Inquiry. The Terms of Reference expressly require an examination of the use of human genetic information in the insurance sector and ask whether further regulation is necessary to protect the privacy of such information and to prevent inappropriate discriminatory use of the information.

25.4 In response to IP 26[6] and DP 66[7], the Inquiry received a large number of submissions that focused on insurance. The submissions indicated a high level of interest in this area and identified some significant concerns.

25.5 This chapter provides background information about the insurance industry in Australia and about the use of genetic information by the industry. In Chapters 26, 27 and 28 the Inquiry examines the concerns raised in submissions and makes a range of recommendations to address those concerns. According to the Inquiry a shift away from the fundamental principles of voluntary risk-rated insurance, based on parity of information between the applicant and the insurer, is not warranted at the present time. The Inquiry recognises, however, that there are legitimate concerns in the community about the way in which insurers use, or are perceived to use, genetic information. The Inquiry’s recommendations are directed toward addressing those concerns by ensuring that the use of genetic information by insurers is fair, transparent, subject to independent oversight, and consistent with anti-discrimination and privacy legislation.

Personal insurance in Australia

25.6 Insurance in Australia is commonly divided into three categories: life, health and general insurance. Life insurance encompasses a variety of products, including policies that provide payment upon death, continuous disability or trauma. Health insurance provides payment for the provision of hospital and ancillary medical and health services. General insurance covers matters not addressed by either life or health insurance, such as product liability, travel, professional indemnity, sickness and accident.

25.7 Genetic information is likely to be of greatest significance in relation to insurance policies that rely on the collection and use of health information, require an assessment of an applicant's risk of mortality or morbidity, and are mutually rated.[8] This Report focuses on these kinds of insurance, which include the following:

Term life insurance: provides for the payment of an agreed lump sum in the event of death of the insured. According to the Investment and Financial Services Association (IFSA), the approximate average level of cover for term life insurance in Australia is $235,000.[9]

Income protection (or disability income) insurance: provides for regular sums to be paid while an insured is unable to work due to sickness or injury. According to IFSA, the approximate average level of cover for disability income insurance in Australia is $3,700 per month.[10]

Trauma (or crisis) insurance: provides for the payment of an agreed lump sum if the insured person is diagnosed with one of a list of specified conditions such as a heart attack, cancer or stroke within a specified period. The average level of cover for trauma insurance in Australia is $165,000.[11]

Sickness and accident insurance: a general insurance product that provides for payment of a lump sum or periodic payments to cover losses or expenses incurred as a result of accidental injury or sickness.

Travel insurance: a general insurance product that provides for the payment of agreed sums to cover losses or expenses incurred in the course of travel, including medical expenses.

25.8 The largest part of personal insurance business in Australia is undertaken by the life insurance industry, either as a component of superannuation or as voluntary mutually rated life insurance. There are currently 42 registered life insurers in Australia, of which six are reinsurance companies.[12] Not all registered life insurers are currently active and several do not operate in the mutually rated market.

25.9 Superannuation funds almost always provide insurance cover for their members against death and disability. Premiums collected for insurance provided as a component of superannuation comprise 87% of total insurance premiums collected by life insurers. Generally, in relation to large superannuation funds, this cover is provided on automatic acceptance terms and is not mutually rated. The only entry requirement is that the person covered must be fit enough to attend work on the initial date. In its submission to the Inquiry, the Australian Life Underwriters and Claims Association explained:

In group life insurance, the necessity for underwriting is less strong because of the law of large numbers and the reduced likelihood of adverse selection. With group life insurance, an insurer can take the bad risks, knowing that there will be enough good risks in the entire number of lives insured to balance the portfolio and allow profitability.[13]

25.10 However, when a person is self-employed, employed by a small business, or wishes to seek a higher level of insurance cover than that offered on automatic acceptance terms, the insurance component of superannuation may be mutually rated. The discussion in Part G of this Report is intended to cover personal, mutually rated insurance products including, for example, those offered as a component of superannuation. When these products are offered by organisations that are not specifically addressed in this Report (for example, friendly societies or superannuation funds), and are not members of IFSA or the ICA, the recommendations in this Report are intended to set out foundation principles that can be applied to underwriting by those organisations, as appropriate.

25.11 It is important to draw a distinction between mutually rated and community rated insurance. Community rating is the basis of Australia's public and private health insurance systems. Under the *National Health Act 1953* (Cth), private health insurance contracts are required to be community rated: in setting premiums, or paying benefits, funds cannot discriminate on the basis of health status, race, sex, sexuality, use of hospital or medical services, or general claiming history. Although this risk is shared collectively across the entire pool of insured, actuaries and underwriters still collect health information to determine the overall premium that insurers must charge to sustain the pool.[14]

25.12 Because insurers in this context are prevented from using health information to assess individual risk, the use of genetic information in relation to health insurance does not raise the same issues as the use of genetic information in relation to other personal insurance products. For this reason, the discussion and recommendations in Part G of this Report focus on those sectors of the insurance industry that offer mutually rated products.

25.13 In mutually rated insurance, the particular characteristics of applicants are taken into account when assessing the risk the applicant will bring to the insurance pool. In its submission, IFSA set out four fundamental principles that underlie the provision of voluntary mutually rated insurance in Australia. These are:

- spreading risks across large groups;
- charging a premium that reflects the risk;
- pooling of similar risks; and
- equal access to information.[15]

25.14 Characteristics such as an applicant's age and sex will nearly always be considered relevant when assessing risk. Depending on the type of insurance, other factors such as occupation, lifestyle, family medical history, current health condition, and genetic test results may also be relevant. In order to assess fairly the risk that each applicant brings to the pool, insurers require access to all the information known to the applicant that is relevant to the risk. The applicant's duty of disclosure is discussed further below. In mutually rated insurance, insured with similar risks are treated in a similar way. The price that insured pay for insurance is thus proportional to the risk they bring to the insurance pool.

Applicant's Duty of Disclosure

25.15 The contract between the insurer and the applicant for insurance is embodied in an insurance policy. Insurance contracts fall into a special category of contracts that are based on the principle of 'utmost good faith'. One element of this principle is that the applicant has a special duty of disclosure at common law[16] and under legislation.[17] The *Insurance Contracts Act 1984* (Cth) largely replaces the common law on the duty of disclosure in relation to the types of insurance of interest to the Inquiry.

25.16 Section 21 of the *Insurance Contracts Act* requires the applicant to disclose to the insurer all information that is known, or which reasonably ought to be known, to be relevant to the insurer. In practice, disclosure occurs initially when applicants for insurance answer questions posed by insurers in the application form or proposal. The duty may oblige an applicant to give further information to the insurer if the initial answers are insufficient to satisfy the duty. The information disclosed is used for the process of underwriting (or risk rating), in which the insurer assesses whether to accept the insurance application and, if so, on what terms.

25.17 Section 22 of the *Insurance Contracts Act* requires the insurer to inform the applicant clearly and in writing (usually in the insurance brochure and application) about the general nature and effect of the duty of disclosure.

25.18 The general duty of disclosure requires the applicant to disclose relevant information up to, but not beyond, the moment the contract is entered into. This may be, and usually is, sometime after the application is completed. An insured is required to disclose matters during the course of the contract only if there is a specific provision in the contract to that effect.[18] Because a contract of life insurance is guaranteed renewable, in practice a life insurance application is risk rated only once—before the contract is entered into. Risk factors, including genetic information, that become known to the insured after the contract has been entered into need not be disclosed. On the other hand, certain insurance policies issued by general insurers, such as sickness and accident policies, must be renewed periodically (usually annually) and there is a duty to disclose relevant information at every renewal.

25.19 Under the *Insurance Contracts Act* an applicant is not required to disclose certain matters such as those that diminish the risk, that are of common knowledge, that are already known to the insurer, or ought to be known to an insurer in the ordinary course of its business.[19]

25.20 The *Insurance Contracts Act* also provides that in some cases the insurer can be held to have waived its right to disclosure from the applicant, for example, when the insurer has not taken steps to investigate obviously incomplete or inaccurate answers provided by the applicant.[20]

Agents and brokers

25.30 The *Financial Services Reform Act 2001* (Cth) (FSRA):

- brings the life, superannuation, general and securities industries under one licensing regime;
- establishes a new disclosure regime for financial products (excluding offers of shares and debentures);
- introduces an amended market regulation regime; and
- imposes standards of conduct for financial service providers dealing with retail clients.

25.31 The FSRA commenced on 11 March 2002, with a two year period for participants in the industry to make the transition from their current regulatory structure to the single licensing and product disclosure regime required under the Act. The Australian Securities and Investment Commission (ASIC) is responsible for the implementation and supervision of the FSRA.[25]

25.32 Insurance agents and brokers act as intermediaries between the insurer and the applicant, giving advice and selling insurance products on behalf, or independently, of the insurer. Insurance agents and brokers now come within the single licensing framework for all providers of financial services and advice established by the FSRA. Generally, under the FSRA, every person who advises on or sells financial services, including insurance, must:

- hold an Australian Financial Services (AFS) license; or
- represent an entity that holds an AFS license.

25.33 Insurance agents and brokers provide advice to applicants on a range of matters, including the type of product needed to cover an identified risk, the choice of insurance policy and the interpretation of questions in the application. They may also assist insurers by providing a report on the applicant to the insurer. When advising applicants, agents and brokers often rely on guidelines, provided by the insurer, about the effect of risk factors on underwriting. As intermediaries between insurers and applicants, agents and brokers may be required to provide advice to applicants on the need to provide, and the implications of, genetic information. The regulation of agents and brokers, including in relation to education and training requirements, is discussed further in Chapter 27.

Actuaries and underwriters

25.34 Actuaries and underwriters act as professional financial advisers to life insurers, including in relation to pricing and policy conditions. Actuaries are also key advisers in general insurance, superannuation and investment.

25.35 As one of their professional roles, actuaries produce ‘standard’ premium rate tables. The rates are based on the best risk statistics available and include adjustments for expenses and profits. Informed judgment is required in setting rates as both risk and strategic/competitive factors are involved. The rates set by actuaries for term life insurance are typically a function of age, gender and smoker status. In addition, disability rates are a function of occupational class, for example, ‘white collar’, ‘blue collar’ and so on. The risk characteristics by which premium rate tables vary are called risk classifications. Actuaries rely on various sources of data to determine the pricing appropriate to different risk classifications, including Australian aggregate life insurance industry statistics, a company's own experience, and medical and overseas statistics.

25.36 Underwriters assess individual applications for insurance and provide advice on whether the application should be accepted and, if so, on what terms. The underwriter first confirms the applicant's standard premium rate risk classification, for example, ‘age 25, female, non-smoker, white collar’. An insurance agent may have already quoted a standard rate based on the initial classification. The underwriter then ‘underwrites’ the case by assessing other risk factors. The most important area of assessment for the underwriting process is ‘medical’, i.e., current and expected future state of health. This may include assessment of an applicant’s genetic information. The other area is ‘non-medical’, which includes the risks associated with hazardous occupations, sports and other pastimes.

25.37 Underwriters base their decisions on underwriting manuals, which are usually supplied by reinsurance companies. Underwriters also rely on informed professional judgment and, in some cases, specialist advice from medical officers and reinsurance companies.

25.38 Most Australian insurance companies do not reinsure policies that fall below a certain monetary limit.[26] However, above these limits, risk is shared between insurers and reinsurers to guard against large fluctuations when insurers are faced with multiple claims in one area, for example, those caused by a natural disaster.

25.39 The underwriting manuals used by Australian actuaries, underwriters and insurers are developed mainly from those compiled by one of the six large international reinsurance companies operating in Australia—the ‘insurers for insurers’. The production and updating of underwriting manuals is a specialist, commercially sensitive and costly task, involving insurance medical specialists, actuaries, underwriters, geneticists and others. Reinsurers play a critical role in formulating basic underwriting manuals because of the large amount of data they obtain through their dealings with many insurance companies globally.[27]

25.40 While Australian insurance companies do not produce their own underwriting manuals, many may make some adjustments using internal guidelines, and all apply overriding industry codes, such as the IFSA Genetic Testing Policy discussed below.

Genetic information in insurance

25.41 This section examines the use of genetic information in insurance, particularly in relation to the current legal obligations of disclosure and the development of industry policy with respect to the use of genetic test information in underwriting.

Collection of general health information

25.42 An applicant's legal duty of disclosure has an important practical consequence for the underwriting of personal insurance: insurers can and do collect a great deal of information from applicants to determine whether or not, and on what terms, they will accept the risk. Health information is gathered because research shows that particular characteristics of individuals impact on their likelihood of making a claim in the future.[28]

25.43 Insurers collect health information about the applicant from questions posed in the insurance application. Health related questions asked by insurers vary according to the type of policy, but typically they include questions about state of health, physical characteristics, lifestyle, results of medical tests and individual medical history.[29]

25.44 Further health information may be required in two cases. The first is if the amount of cover sought exceeds the underwriting limit. Insurers generally operate within certain underwriting limits, such as those published by the RGA Reinsurance Company of Australia.[30] The underwriting limits take into account a number of variables, including the amount insured, the type of insurance, age, and the additional health information sought (such as an examination by a general practitioner or specialist).

25.45 Second, the applicant may disclose current or past medical conditions that require further investigation through a questionnaire, a report from a current doctor, or a medical examination. Application forms usually include a standard medical authority, which gives the insurer written consent to obtain full particulars of the applicant's medical history, including details of any clinical notes.

Collection of genetic information

25.46 Insurers may also have an interest in using genetic information to underwrite an application for personal insurance. This is because certain kinds of genetic information about an individual, or his or her family, may reveal information about present or future health, which may in turn affect the likelihood of the applicant making a claim under the policy. Insurers may ask applicants to disclose genetic information derived from a genetic test or from family medical history.

Family medical history information

25.47 The IFSA submission noted that:

The use of family medical history is an integral part of the underwriting process. Family medical history has been used for over 100 years within the life insurance industry worldwide ... It is used to identify potential medical risks on the basis of the probability that the insurance applicant may be susceptible to certain risks due to a familial/hereditary link with his or her immediate family.[31]

25.48 Typically, questions about family medical history ask whether immediate family members, that is, parents, brothers and sisters—alive or dead—suffered from heart disease, stroke, high blood pressure, diabetes, cancer, or other familial disorders. Family medical history information is used as a means of assessing longevity and the likelihood that an individual will develop a familiar or inherited condition in the future.

25.49 In October 2002, IFSA conducted a survey of its members to determine the significance of family medical history in underwriting. Sixteen insurers and reinsurers participated in the survey. The results of the survey were as follows:

The survey covered 7,949 applications for term life cover, total and permanent disability (TPD) cover, disability insurance, trauma cover or combinations thereof. Family medical history played a part in 558 (7.39%) applications. 349 applications showed a family medical history that was either not significant in the underwriting decision or resulted in a favourable underwriting decision (i.e. accepted at standard rates), when considered with other personal medical information.

The remaining 209 (2.62%) applications had an unfavorable underwriting decision (i.e. resulted in a loading, exclusion, deferral or declinature of insurance), which therefore showed that the insured's family history impacts on an extremely small number of underwriting assessments. In 106 of these applications the rating was exclusively attributable to the family medical history, whilst in the remaining 103 applications, the ratings were based on a combination of family medical history and other medical and personal information.[32]

Genetic test information

25.50 More recently, the life insurance industry has also been using genetic test information for underwriting when it is disclosed by the applicant. The basis for using genetic test information in underwriting was explained by IFSA in the following terms:

The industry considers the use of genetic test results in underwriting as an integral part of the medical information currently used, with the important exception that an insurer will not ask an applicant to undergo a genetic test.

Medical information, including results of medical tests, individual and family medical history, and medical examinations, is used by underwriters to understand an individual's current and likely future health, and thereby to assess their risk of claiming.[33]

25.51 In 2001, IFSA initiated a research project to monitor both the volume of genetic tests disclosed in Australian life insurance applications and the progress of these applications through the underwriting process. IFSA commissioned the Institute of Actuaries of Australia to survey, on a six-monthly basis, all life insurance companies that sell term life insurance, total and permanent disability insurance, trauma insurance, disability income insurance, and business expenses insurance in Australia.[34]

25.52 The number of applications received by Australian life insurers involving genetic test information is currently small. Figure 25-1 shows the genetic disorders for which genetic test results were disclosed during the two year survey period. During the first four reporting periods (ending 31 May 2001, 30 November 2001, 31 May 2002 and 30 November 2002) insurers received a total of 235 applications with a genetic test result, of which 211 were assessed. Of these 211 applications, 98 were underwritten on standard terms, 58 were underwritten on non-standard terms, 26 were deferred and 29 were declined. Of the 113 applications that were underwritten adversely—non-standard terms, deferred or declined—the major reason given for the adverse decision was said to be the genetic test result in 27 cases (24% of adverse cases) and some other medical reason in 69 cases (61% of adverse cases).

Figure 25-1 Genetic test results in insurance applications 30 November 2000 to 30 November 2002.

Disease or Disorder Tested For	Number of applications
Hereditary Haemochromatosis	170
Huntington's Disease	22
Breast Cancer	10
Cystic Fibrosis	8
Factor V Leiden	5
Myotonic dystrophy	4
Familial Adenomatous Polyposis	3
Colorectal Cancer	2
Polycystic Kidney Disease	2
Marfans Syndrome	1
Hereditary Non Polyposis Colorectal Cancer	1
Multiple Endocrine Neoplasia	1
Charcot-Marie-Tooth Disease	1
Prothrombin gene mutation	1
Epidermolysis Bullosa	1

Tay Sachs Disease	1
Spinocerebellar ataxia	1
Tuberous Sclerosis Complex	1
Total number of applications	235

Source: Data prepared by the Institute of Actuaries of Australia and provided to the Inquiry by IFSA.

25.53 To place these figures in perspective, according to statistics collected by ASIC, and made available to the Inquiry by IFSA, during the calendar year ended 31 December 2001 approximately 1.23 million new policies were issued by life insurers in Australia (excluding group life products).

Industry policy on the use of genetic information

25.54 Prior to 1995 the life insurance industry in Australia did not have a developed policy with respect to the use of genetic information for underwriting. In the mid 1990s, IFSA's predecessor, the Life Investment and Superannuation Association, developed a draft policy on genetic testing, which was released to its members for consideration in June 1997.

25.55 In February 1999, IFSA released an agreed draft industry policy, which was lodged with the Australian Consumer and Competition Commission (ACCC). IFSA applied to the ACCC for an authorization in relation to a number of clauses in the policy which could be construed as anti-competitive.[35] This was because the draft policy impeded insurers from competing on the basis of price in so far as it prohibited 'preferred risk underwriting', that is, the practice of discounting premiums to persons who present less than standard risk. In support of its application, IFSA submitted that the primary purpose of the draft policy was to ensure that insurers did not initiate genetic tests. The draft policy had been framed in this way to prevent indirect coercion to undergo a genetic test, and thus to respect an applicant's 'right to not know' about a genetic disorder or predisposition.

25.56 The *Trade Practices Act 1974* (Cth) provides that the ACCC may grant an authorization if satisfied that any anti-competitive aspect of the arrangements or conduct is outweighed by the public benefits arising from the arrangements or conduct.[36] In November 2000 the ACCC granted IFSA a two-year authorization, noting the establishment of this Inquiry, 'the complex issues involved', and the need to provide a 'breathing space' during which these issues could be debated and government policy developed. The ACCC concluded that:

Ensuring IFSA's members do not require applicants for insurance to undergo genetic testing, and that applicants will not be indirectly influenced into undergoing such tests, is likely to result in benefit to the public. In particular, the Commission considers that there is public benefit in avoiding insurer-initiated coercion to undertake genetic testing.[37]

25.57 Since the ACCC authorization, IFSA has further developed the draft policy and formalized it into an industry standard (IFSA Standard 11.00—Genetic Testing Policy). In December 2002, when the initial two-year authorization expired, the ACCC granted an interim authorization in relation to the relevant clauses, which will run until the ACCC issues its draft determination for comment. At that time the ACCC will reconsider the interim authorization.

25.58 The purpose of the IFSA Genetic Testing Policy is to specify standards for handling genetic test results to be adopted by life insurers in the operation of their business.[38] There is no equivalent policy in relation to the general insurance sector. The IFSA policy does not extend to genetic information obtained from family medical histories. The key elements of the IFSA Genetic Testing Policy are as follows:

Insurers will not initiate any genetic tests on applicants for insurance.

Insurers may request that all existing genetic test results be made available to the insurer for the purpose of classifying the risk.

Insurers will not use genetic tests as the basis of ‘preferred risk underwriting’ (offering individuals insurance at a lower than standard premium rate).

Members must provide their employees and authorized representatives with sufficient information and training so that they understand the content and meaning of the Standard so far as it relates to their particular jobs and responsibilities.

Insurers will ensure that results of existing genetic tests are only obtained with the written consent of the tested individual.

The results of a genetic test will be used only in the assessment of an insurance application in respect of the individual on whom the test was conducted.

Insurers will ensure that strict standards of confidentiality apply to the handling and storage of the results of genetic tests.

Insurers will provide reasons for offering modifications or rejections to applicants in relation to either new applications or requests for increases on existing policies.

Insurers will have a competent and efficient internal dispute resolution system to deal with complaints relating to underwriting decisions involving a genetic test result.[39]

25.59 The Genetic Testing Policy is an internal industry standard administered by IFSA. Compliance with the policy is the responsibility of each insurance company that is a member of IFSA. Member companies must certify compliance with the policy annually according to the terms of the IFSA Code of Conduct and Code of Ethics.[40] The Code of Conduct states that, in the event of non-compliance, the IFSA Board may impose a range of disciplinary measures including public or private censure and suspension of, or expulsion from, IFSA membership. However, as IFSA is not a regulator, it has indicated that its monitoring of compliance will be done with a ‘minimum of formality’.[41] The IFSA Genetic Testing Policy is discussed further in Chapters 26, 27 and 28.

2) Belgium

Belgium is recorded[13] to have been the first European country to enact legislation with respect to genetics and insurance. At no less than two different places, the Belgian Act of 25 June 1992 on non-marine insurance contracts (hereafter "the Insurance Contract Act") formulates a complete prohibition of the communication of genetic information. Article 5 of this Act, which deals with the general rules on the applicant's duty of accurately and correctly describing the risk at the time of conclusion of the contract, bluntly declares that "genetic data cannot be transmitted". And article 95 of this Act, dealing more specifically with personal insurance, prescribes that the medical examination, necessary for the conclusion and carrying-out of the contract *"may only depend on the anamnesis of the present health condition of the candidate and not on techniques of genetic investigation that serve to predict the future state of health"*.

The formulation of the legal prohibition is such that it appears to extend to genetic information concerning other persons, e.g. the ascendants. One will notice that the Belgian Insurance Contract Act does not speak about genetic tests, but limits itself to prohibiting all communication of genetic results. This last rule must be understood to imply that an insurer is not allowed to impose any form of genetic testing.

The position of the Belgian insurance legislation is comparable to the one of e.g. Austria, insofar as not only insurers are not allowed to ask for applicant genetic information, but also that insurance applicants may not submit favorable test results to obtain lower premiums or otherwise more favorable insurance conditions[14]. The insurance seeking candidate is not allowed to spontaneously give genetic information. The use of genetic test information is prohibited even in circumstances where it is to the benefit of the insured.

Since the prohibition rule had been introduced in the Insurance Contract Act on the basis of a Parliamentary initiative and rapidly and without further explanation agreed upon by the Government, the parliamentary preparatory works do not offer any extensive justification for the new rule. In legal doctrine, a number of considerations are put forward.

Opposition against giving insurers the right to require and acquire genetic information comes first from the *medical* side. In their view it would be an ill-inspired idea to impose upon candidates the obligation of informing the insurers about their genetic profile that is in their possession, because such obligation would discourage people from submitting to genetic testing for medical reasons or for scientific reasons. Whereas such reasoning may not be a sufficient argument against the right of insurers to impose *genetic testing*, another argument of a medical nature is formulated against compulsorily submitting a person to genetic testing. Genetic data, so it is claimed, are different from other medical data insofar as genetic information can present significant risks for the physical and mental health of the

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[13] *Genetic Testing*, *o.c.,* 24.

[14] *Genetic Testing*, *o.c.,18.*

patient. If genetic examination does not present a risk in itself, confronting the patient with the knowledge of it may be so. In this context, it is reminded that "*primum non nocere*" is the diagnostician's first task. In addition, there are also objective differences between medical and genetic data. The latter ones, so it is claimed, cannot (at least can not yet) change and they cannot be treated, nor influenced nor prevented whereas (most) other medical data are. In addition genetic data are never strictly individual.

Together with the arguments of medical nature, there is also a number of strong legal arguments that are invoked. In the Belgian way of legal thinking the main legal argument is drawn from considerations on the protection of privacy. The genetic profile, so it is claimed, is part of the inner "sanctum" of each person, that must not be shared with third persons. In addition "the right to not know" can be considered as a personality right, especially while health rules are involved for which there is no cure, at least not *hic et nunc*. The argument easily takes another legal form, namely when it is versed in terms of discrimination (although, so far, this approach was less present in Belgian legal thinking). Genetic characteristics, so the argument goes, are, like race, sex, criteria that cannot lead to differential treatment, except in exceptional and well defined circumstances. One will recall in this respect the Charter of Fundamental Rights of the European Union. An interesting problem here is the question to know to what extent the genetic profile criterion is comparable with, or different from other criteria like race and sex.

However, the main argument in favour of limiting the access of insurers to genetic testing and more generally to genetic information, is based on what I would like to call social policy considerations. Both the privacy protection and the non-discrimination rules lead to the political decision that some form of solidarity must be installed between those who may be considered to be the genetically lucky ones and those who are disfavored. By denying insurers access to predictive information about genetic data, such a form of solidarity is automatically silently, even unconsciously, installed between the members of the insured population. The mechanics of such "redistributive solidarity" are briefly explained hereafter.

Returning to the Belgian insurance legislation, and as conclusion, the radical prohibition of communication of genetic data amounts to a method of "solidarizing" the genetic risk, i.e. of obliging the members of the insured to share that risk. The approach is certainly amazing in a legal system where the primary duty of the applicant is to correctly and fully inform the insurer about the scope and nature of the risk. Nevertheless for the reasons, medical, societal as well as legal ones stated above, this is a perfectly valid and justifiable position.

2) Denmark

No, a prohibition applies against requests from insurance companies asking for information, receiving information or using information about a person's genes in order to determine their risk of developing or catching diseases. Furthermore, it is prohibited to demand examinations which are necessary to provide such pieces of information.

2) France

In France, human genome tests are forbidden (Health Code. Section 1141-1; Insurance Code Article L.133-1).

- any question of insurers on genome test is forbidden, even with the consent of the insured.
- the insurers are not allowed to set premium tariffs on the result of genome test.

2) Germany

In 2000, the German Department of Justice assembled a working commission consisting of German insurance law professors and insurance practitioners to draft a new Insurance Contract Law (*Versicherungsvertragsgesetz*, VVG) which is adapted to the modern standards.

After two years, the commission released a first draft (*Zwischenbericht der Kommission zur Reform des Versicherungsvertragsrechts*). In this draft, it is suggested that it is too early to think about explicit regulations concerning the use of genetic data in insurance law. First, the further development and practical value of such tests should be observed. Thus, concerning the use of genetic data in insurance, there has not yet been any legislation passed.

However, in 2004, the German Insurance Association (*Gesamtverband der Deutschen Versicherungswirtschaft*, GDV) released a paper voluntarily declaring it would not be necessary for the applicant to make a genetic test in order to enter a contract of insurance. (*Selbstverpflichtungserklärung des GDV*). This paper of the GDV is valid until 31.12.2006.

2) Greece

The insured person must declare any matter that is decisive for the evaluation of the insurance risk and must answer any relevant question to the insurer. However, it must be noted that “genetic data”, which according to the Hellenic Data Protection Authority (“HDPA”) are all data pertaining to carriers of genetic information within an individual or genetic line, which relate to any aspect of health or a disease situation, whether the traits are definable/identifiable or not, are considered as “sensitive data”, the collection and processing of which is subject to special circumstances and security terms (L. 2471/97). According to the above mentioned law, the collection and processing of sensitive data is basically prohibited. Exceptionally, it could be allowed when the data subject has given his/her written consent, unless such consent has been extracted in a manner contrary to the law or *bonos mores* or if law provides that any consent given may not lift the relevant prohibition. "The Data Subject's Consent" shall mean any freely given, explicit and specific indication of will, whereby the data subject expressly and fully cognisant signifies his/her informed agreement to personal data relating to him being processed. The mere consent to a pre-made concession agreement cannot be considered to cover the requirements of the Law. In a decision regarding the right of the investigation authorities to proceed with a DNA test to a suspect of a capital crime, HDPA has ruled that personality profiling through genetic analysis directly violates the value of a human being, a value protected as a constitutional right, and the free development of personality, whose special manifestation is the right to informational self-determination. The drastic nature of the intervention, in the case of genetic analysis, due to the rich content of genetic material, must be taken into consideration in order to define the specific circumstances of its collection and process. The methodology and practical framework of the procedure must comply with the principles of the protection of personality and value of human beings, as well as with the principle of proportionality, which is crucial for the maintenance of the equilibrium between the affected rights and the, admittedly important, pursued public interest[15]. In any case analysis of genetic material for preventive purposes should be excluded. In addition, HDPA has ruled that unnecessary personal data processing for the achievement of the purpose sought is not legitimate even when the data subject has given his/her consent according to article 5 par. 1 or article 7 par. 2 section (a) of Law 2472/97 because the consent itself does not allow any act of processing contrary to the principle of purpose and necessity (decision no. 510/17/15.05.2000 of the Authority). In any case the person who legitimately has collected and processed the genetic material should have the obligation to destroy it upon the fulfillment of the intended aim. Thus, we consider that the collection and processing of genetic information in connection to insurance policy agreements, is at present prohibited.

2) Portugal

Article 12 of Act 12/2005 establishes the regulations for genetic testing and insurance:

- Insurance companies may not request or use any kind of genetic information as a means of refusing life insurance or setting higher premiums.

- Insurance companies may not request that their potential clients undergo genetic testing for the purposes of life or health insurance or for any other purposes.

- Insurance companies may not use genetic information obtained from any genetic testing previously undertaken by current or potential clients for the purposes of life or health insurance or for any other purposes.

- Insurers may not demand or use genetic information that has been collected and recorded on previous generations of family members as a means of refusing a policy or setting higher premiums or for any other purposes.

2) Switzerland: The legislation will be enforced in January 2007.

2) In Brazil, Colombia, Ecuador, El Salvador, Spain, Hungary, Italy, Japan, Paraguay, South Africa and Uruguay no legislation has been passed in this regard.

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[15] Opinion No. 15/2001.

3. In your country, does there exist specific legislation on discrimination? If so, is discrimination on account of genetic characteristics included?

3) Australia

In Australia there exists legislation on discrimination. (See "Answer: H3 The Australian Human Rights and Equal Opportunity legislation") However, this does not apply to discrimination on genetic grounds. The ALRC Report 96 addressed the issue at paragraph 25.58 and 25.59 set out above.

3) Belgium

Yes.

3) Brazil

There is no legislation against discrimination on genetic characteristics.

3) Colombia

Yes. The political constitution rules against discrimination in sections 5, 13, 16, 43 and 44, among others. These sections are included as follows:

"*Section 5 – "The State acknowledges, with no discrimination whatsoever, the primacy of the inalienable rights of the individual and safeguards the family as the basic institution of the society."*

Section. 13 -*"All individuals are born free and equal before the law, they shall receive the same protection and treatment from the authorities and enjoy the same rights, freedoms and opportunities irrespectively of their sex, race, national or familiar origin, language, political or philosophical opinion.*

The State shall promote conditions to ensure an actual and effective equality and shall adopt measures to favor discriminated and marginalized groups.

The State shall specially protect those persons who, on account of their financial, physical or mental situation, are in a state of manifest weakness and shall punish any abuses or maltreatment."

Section. 43 Women and men have the same rights and opportunities. Women shall not be subject to any type of discrimination. During the pregnancy period and after the birth, they shall enjoy special assistance and protection from the State and shall receive a food subsidy if unemployed or unprotected at that time.

Section 44 The children's basic rights are: life, physical integrity, health and security, balanced nourishment, their name and nationality, having a family and not being taken away from it, care and love, education and culture, recreation and free expression of their opinions. They shall be protected against any form of abandonment, physical or moral violence, abduction, sale, sexual abuse, labor or economic exploitation and risky jobs. They shall also enjoy other rights enshrined in the Constitution, the law and international conventions subscribed by Colombia.

The family, the society and the State must provide assistance and protection to children in order to ensure their harmonious and integral development and full enjoyment of their rights. Every individual is entitled to request from the competent authorities their fulfillment and punishment of those who do not comply with them.

The rights of children prevail over the rights of everybody else."

Further, legislative developments stressing the prohibition of discrimination are diverse and have dealt with the scope of the principle of equality, the identification of differentiation criteria, the rights of women and the rights of children, among other issues. The prohibition of any form of discrimination on account of genetic characteristics is not expressly included but there exist interesting elements which could cover them.

In fact, Colombia amended its constitution in 1991 and the private law has undergone a constitutionalization process considering that, among other reasons, it consecrated the action of protection as an institution intended to ensure the rights mentioned and the prevalence of constitutional precepts over positive law provisions.

The decision passed by the Constitutional Court second revision office on November 6 2001 is worth mentioning. Although no provision was expressly made on the use of genetic tests, under this ruling –having judge Alfredo Beltrán Sierra as reporting judge- an insurance company had to accept the risk of a life insurance applicant carrying the AIDS virus and to set the tariff as in the case of a standard risk, by protecting the right to housing as a basic right. The relevant portions of the ruling are included as follows[1]:

"Legal issue: Is the right to adequate housing infringed, with regards to the right to equality, when an insurance company denies the protection of life requested by an individual who received a housing subsidy from the State, was granted a loan, subscribed a deed conveying title on a property and the corresponding mortgage and, upon requesting the insurance, informed that he was an asymptomatic carrier of the human immunodeficiency virus HIV? Yes.

Thesis

"(…) The effectiveness of the protection in the case of a person's request for his housing to be adequate shall depend on the legal and material conditions of the specific case... In this context, in order to know whether the right to an adequate housing has been infringed in terms of the right to equality, it is necessary to analyze if the reason why the life insurance is denied is valid or, if it lacks the constitutional support, since the only aim is to ignore the applicant's rights. ... Such conduct shown by the insurance company is discriminatory and fails to acknowledge the purposes pursued by the state of the law towards the respect for human dignity, since under no circumstance should the fact of being an asymptomatic HIV carrier be an exclusion to get a life insurance. No legal provision exists in this regard and, if so, it would oppose to constitutional provisions. The rules included in the Code of Commerce state that any person has an insurable interest in his own life, in the life of other individuals whose alimony could be demanded from and those whose death or disability could result in a financial prejudice even if it were not susceptible of a certain evaluation ... Likewise, to take a life insurance, it is not necessary to undergo medical tests since, the applicant is only required to sincerely declare the facts or circumstances determining the

risk degree... Precisely, the applicants' good faith in willingly declaring that they are HIV asymptomatic carriers, became the reason of its rejection, which cannot be supported by this Corporation, considering that, under the Universal Human Rights Convention, ...all individuals are equal before the law and are entitled, without any distinction, to equal protection against any form of discrimination. ... In the case of the subscription of a life policy, the underlying assumption expresses that any policy being subscribed is subject to a certain and undetermined fact which is the policyholder's death, for which reason even in the presence of probable life levels, there is no certainty on when the policyholder's death will occur. Therefore, denying a life insurance to a HIV asymptomatic carrier on the grounds that this person is going to die sooner than other person not suffering from this condition is legally inadmissible since it would be discriminatory and, thus, against the Political Constitution .[2]. Then, it is clear that there is no reason to justify the decision taken by the defendant Insurance Company to deny the life insurance requested by the applicants considering that, although the Aseguradora Solidaria de Colombia (Insurance Company) is independent in its contractual relations, this independence cannot turn into an abuse of its position in prejudice of the rights of those individuals resorting to it. Should this Court sustain that the defendant may deny a life insurance on the grounds that the applicant suffers from the human immunodeficiency virus would entail accepting any form of discrimination, disregarding constitutional provisions and the international law. Moreover, if such an exclusion is accepted, any person carrying HIV in the future will be excluded from any kind of business and it could then be said that the virus-infected person should refrain from working, assisting to an education institution, having a health insurance or using any means of transport since these activities, as in the case of the insurance business, derive from a legal business under which the parties must express their consent, and such consent should not be based on discrimination."[3] C.Co. sect. 1137; C.Co. section 1158; Universal Human Rigths Declaration section. 7; C.Po. section. 13.

"Therefore, the protection requested should be granted since, in the case under consideration, the only reason expressed by the insurance company to deny the life insurance, apart from being discriminatory, prevents the complainants to buy their home and this right becomes fundamental because it is intrinsically related to other basic rights including life, equality, dignity of the individual resorting to this court".

"The complainants are entitled to living, in an adequate home, with dignity and, further still, under the special circumstances affecting them, having access to housing pursues a social interest since this housing is intended to protect the poor and vulnerable and is equal to protecting a vital minimum standard in terms of adequate housing".

"Consequently, the court decision rendered on August 3, 2001 by Civil Court Thirteen (13) of the Cali-Valle District must be considered and the protection requested by the complainants shall be granted, ordering the Aseguradora Solidaria de Colombia that in the term of 48 hours as from notice of this ruling is made, it grant the life insurance requested, in conditions of equality, in order for them to buy their home of social interest".

"Copy of this decision shall be sent to the Banking Superintendency requesting such agency to ensure the subscription of the insurance requested by the complainants respecting their fundamental rights."

This court decision has been quite controversial. Opposing voices sustain that insurance public law rules establish that tariffing must be made in terms of the risk posed. Tariffing in terms of risk requires consolidating the resources necessary to cover losses. The payment of a premium in terms of the loss probability is legitimate; it can be observed that this is the case of legitimate discrimination; it is the condition of mutuality, of the role played by the insurance as a mechanism for risk dispersion. In the exercise of the private autonomy of the will which governs the relation with the private law, this proportionality in the payment of premiums is compatible with the existence of risk subscription manuals and a classification according to the risk the exposition level where their sexual or homosexual behavior is a factor considered upon evaluating the risk, either accepting or denying it or suggesting follow-up alternatives including, as an example, rejecting the risk in the area of life, or the exclusion of any HIV positive- related treatment, in the case of health.

3) Denmark

There is a general prohibition against differential treatment of men and women due to the individual's race, skin or ethnical origin, religious belief or sexual orientation. The prohibition will, due to the circumstances, include genetic differences.

3) Ecuador

The Human Genome Project has not been regulated. However, the world convention has been adhered to.

3) El Salvador

The Constitution as well as secondary enactments specifically rule on discrimination. Although no law makes specific reference to discrimination on genetic characteristics, it can be deemed as included in such enactments

3) France

The criminal Code (Article 225-1) forbids any discrimination based on health including genetic characters

3) Germany

In Germany, there are several regulations which prohibit discrimination among others on grounds of sex and disability in civil and employment law. However, there is no regulation in terms of discrimination on account of genetic characteristics.

3) Greece

There is legislation on discrimination in general terms. Regarding genetic discrimination, it would be covered by opinion 15/2001 and section 4 of act 2472/97.

3) Hungary

There is legislation in this regard and it can be deemed to include genetic discrimination.

3) Indonesia

No, there is no specific legislation on genetic discrimination.

3) Italy

No. Under the provisions of section 11 of the Human Rights and Biomedicine Convention subscribed in Oviedo in April 4 1997, introduced in Italy in the act of March 28 2001, Nº 145, any form of discrimination on account of the genetic characteristics is forbidden.
In this regard, the legislative measures required to adapt the Italian legal order/organization are pending.

3) Japan

No, there exists no specific legislation on genetic discrimination

3) Paraguay

No, no legislation exists in this regard.

3) Portugal

Act 12/2005 (Article 11) establishes the principle of non-discrimination:

- No one should suffer any form of prejudice as a result of any genetic disease or genetic inheritance.

- No one should be discriminated against, in any way, on the basis of the results of heterozygosity, pre-symptomatic or predictive diagnostic genetic testing, including those obtaining or maintaining employment, obtaining life and health insurance, seeking access to education and those involved in adoption procedures, including both adoptees and adoptive parents.

- No one should be discriminated against, in any way, particularly in relation to their right to medical and psychosocial treatment or genetic counseling, for refusing to take a genetic test.

- Equal access to genetic counseling and genetic testing is guaranteed for all, with the due safeguarding of populations more severely affected by a particular genetic disease or diseases.

3) South Africa

Yes.

According to section 9(3) to 9(5) of The Constitution of the Republic of South Africa, Act 108 of 1996, no person may unfairly discriminate directly or indirectly against anyone on one or more of the following grounds: race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language and birth. Any such discrimination is deemed to be unfair unless it is established to be fair.

Should no unfair discrimination in terms of the Constitution exist, the determination of tariffs depends upon agreement between the potential insured and the insurer on the tariff for insurance cover, based on the potential insured's risks and specific circumstances.

Furthermore in terms of section 12(2), everyone has the right to bodily and psychological integrity that includes the right to make decisions concerning reproduction, the right to security and control over their body, and not to be subjected to medical or scientific experiments without their informed consent.

3) Spain

Pursuant to the Criminal Code, the serious discrimination against an individual, in his place of work, on account of his sex, race, illness, sexual orientation, etc. is considered a crime against the workers' rights.

The Spanish Constitution establishes the right to equality in general terms

3) Switzerland

General legislation on discrimination exists but it does not include genetics.

3) Uruguay

Diverse laws rule against discrimination including Act 17,817 which creates the Discrimination, Xenophobia and Racism Committee, declaring it of national interest. This law defines discrimination by offering a wide concept of the term though it does not mention genetic discrimination. Therefore, the inclusion of this type of discrimination in the law is uncertain. *

Other enactments refer to discrimination at school (Act 17,724 which approves the UNESCO convention), discrimination against women (Act 17,629), discrimination against the disabled (Act 17,330), discrimination against migratory workers and their families (Act 17,107), prohibition of racism (Act 15,892).

* Act 17, 817:

Section 1- *The struggle against racism, xenophobia and any form of discrimination is declared of national interest.*

Section 2.- *To the effects of this law, discrimination is any distinction, exclusion, restriction, preference or exercise of physical or moral violence on the grounds of race, color of skin, religion, national or ethnic origin, disability, physical aspect, sex, sexual orientation or identity, intended to prevent or undermine the acknowledgement, enjoyment*

or exercise, in equal conditions, o human rights and basic freedoms in political, economic, social, cultural or any other aspect of public life.
Section 3.- *The Honorary Committee against Racism, Xenophobia and any form of Discrimination is hereby created.*

4.- Does the legislation or case law of your country contemplates the possibility that insurers may request from the prospective policyholder a genetic examination, before entering into a life insurance policy? If there does not exist any regulation on this matter, please inform us about your National Section's opinion on this matter, bearing in mind that for the majority of cases, such examinations will only indicate the probability of someone contracting an illness.

4) Australia
Legislation does not, at the present time, exist on particularly life insurer requests for a genetic examination from a prospective policyholder. Life Insurer members of the Investment and Financial Services Association in Australia do operate to a non regulatory Code of Practice in regard to requests for genetic tests which *inter alia* cannot be requested by the life insurer being approached for life insurance cover. (The ALRC Report 96 addressed the issue at paragraph 25.58 and 25.59 set out above).

4) Belgium
Yes. See answer to question 2.

4) Brazil
There is no legislation, doctrine or case law in this regard. The Section has no opinion due to the complexity of this issue though it is under study.

4) Colombia
No. From the technical point of view, it is not possible, for the time being, for Insurance Companies to consider this possibility. On the other hand, due to competition reasons in the insurance market, the trend is to eliminate medical condition of insurability in collective life insurance and to reduce them in the case of individual life insurance.
Based on the principle of the insured's good faith, the description provided on the health condition enclosed to the insurance application in order to evaluate and approve the insurance from the medical points of view would suffice, leaving aside other more complex or "unpopular" tests including genetic tests.
From the legal point of view specifically, it is important to highlight that there is no legislation allowing insurers to request genetic tests from applicants. The national legislation in this regard is scarce and the case law has not taken this issue into consideration yet. Although every person is entitled to do whatever has not been expressly

forbidden by law and nothing says the law on the use of medical tests –least of all on genetic tests-, during the decision-making process on the risk in the pre-contract period, the use of non genetic tests and access to genetic information by non genetic means has been tolerated. According to the insurance technique, non genetic medical tests are required according to risk selection policies in personal insurance depending on certain factors including age, insurable value and the content of the insurability statement.

However, the Colombian positive law has succeeded in restoring the balance during the pre-contractual stage by acknowledging that the insurer is ab initio at the mercy of the reports provided by the insured which serve as the basis for tariffing purposes according to the risk and the possibility of making a possible anti-selection. For this reason, the insurance taker carries the heavier burden of the truthfulness in the development of the good faith principle, under the penalty of rendering the agreement null as provided for by section 1058 of the Commercial Code included as follows:

Section 1058. *"The insurance taker shall make a sincere declaration of the facts and circumstances determining the risk condition, based on the questionnaire to be provided by the insurer. Failure to include information or misrepresenting facts or circumstances which, if known to the insurer, would have led to deny insurance or to establish more onerous conditions, render the insurance invalid.*

If the statements are not made according to the questionnaire provided, misrepresentation shall produce the same effect as if the insurance taker has negligently failed to disclose facts or circumstances resulting in the objective aggravation of the risk.

If the misrepresentation or reticence is the consequence of the insurance taker's blameless mistake, the agreement shall not be invalid but the insurer, in case of a loss, shall only provide coverage proportionally to the risk insured which shall be equivalent to the proportion of the tariff or premium stipulated in the agreement, and the adequate tariff or premium, except in the case provided for in section 1,160.

The penalties established in this section shall not be applicable if, previous to entering into the agreement, the insurer comes to know facts or circumstances invalidating the statement or if, once the agreement is entered into, the applicant modifies such information or accepts them either expressly or tacitly."

Regarding other aspects, following the international trend, insurers do not demand genetic tests from their applicants. This issue is being discussed -on the basis of inter- and transdisciplinary viewpoints- at academic spheres, universities and among members of the society including research centers, agrarian authorities and food authorities, among others

It should be said that insurers have had access to genetic information upon requesting non genetic exams including lab tests, electrocardiograms or the provision of family background information; and, as costumes go, if the potential insured refuses to perform medical tests, the selection process is stopped with no legal provision requesting the insurer to grant the insurance.

However, as noticed, there is the risk that, by virtue of the constitutionalizaton of the private law, which is also observed in the field of insurance, the insurer be required to issue the policy, as in the case described above.

Finally, the performance of medical tests does not only provide results disclosing a mono or pluri-factorial genetic predisposition, but it also confirms the non-existence of such predisposition.

4) Denmark

Yes, see above under 2. The insurance companies do not have objections against the prohibition as long as it does not seem to be anti-competitive.

4) Ecuador

There is no legislation on the possibility to request such exams. In terms of subscription policy, it should not be restricted by law since the acceptance of the risk or the limitation on exclusions is not subject, except under few cases, to legal conditions. However, invoking certain excluding circumstances, established through genetic exams, would damage constitutional principles against any form of discrimination.

4) El Salvador

There is no specific legislation on the possibility offered to insurers to request insurance applicants a genetic test; nor do companies request them. Should the possibility of requesting a genetic test exist, it would assist insurers in estimating the risk and, consequently, selecting the individuals to be insured.

4) France

There is not possibility for an insurer to request a genetic exam before contracting a life insurance (Article L.133-1. Insurance Code. Article 1141-1 Health Code).

4) Germany

The insurance companies contemplate that requiring a genetic examination is not at present necessary. Thus, the insurance companies do not ask for a genetic examination of the policyholder before entering into a life insurance policy.

4) Greece

In addition HDPA has ruled that unnecessary personal data processing for the achievement of the purpose sought is not legitimate even when the data subject has given his/her consent according to article 5 par. 1 or article 7 par. 2 section (a) of Law 2472/97 because the consent itself does not allow any act of processing contrary to the principle of purpose and necessity (decision Nr. 510/17/15.05.2000 of the Authority)[16]. In any case the person who legitimately has collected and processed the genetic material should have the obligation to destroy it upon the fulfillment of the intended aim. Thus, we consider that the collection and processing of genetic information in connection to insurance policy agreements, is at the present prohibited.

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[16] Decision Nr. 52/2003.

4) Hungary

No. The opinion of the National Section is under consideration.

4) Indonesia

It is not stated in the regulation, however there is prohibition for the insurer to request a genetic exam if it's relevant to the Policy

4) Italy

No. The prohibition arises from secondary rules on privacy since insurer is not allowed to consider (and, therefore, request the performance of tests to obtain) the applicant's genetic information for contractual or pre-contractual purposes (section 90, Privacy Code and General Authorization No 2/2002, item 2, b).

4) Japan

No. The life insurance industry has no intention of introducing genetic tests as a risk selection methodology. But it cannot be denied that the insurance industry is not considering introducing genetic tests if genetic exams raise their precision and improve the cost-efficiency relationship and if the adverse selection prevention is effective. However, in our country, there are only a few genetic diseases due to single gene defects (e.g. Huntington's disease) and a great debate is expected concerning the conflict between genetic tests and privacy rights. Then, our section considers that it is too soon to introduce genetic exams.

4) Paraguay

In Paraguay there is no legislation, nor doctrine or case law which contemplates or might have contemplated the possibility of genetic exams being requested by insurers before taking a life insurance.

The Paraguayan sector considers that in order to grant a coverage of more than U$S 300,000, reinsurers demand special exams, which, as we already know, just give us and will continue to give us "probabilities".

4) Portugal

Article 11 (2) of Act 12/2005 establishes that no one should be discriminated against, in any way, on the basis of the results of heterozygosity, pre-symptomatic or predictive diagnostic genetic testing, including those obtaining or maintaining employment, obtaining life and health insurance, seeking access to education and those involved in adoption procedures, including both adoptees and adoptive parents.

4) Spain

In Spain, there is no provision allowing or forbidding insures to perform a genetic test before hiring a life insurance. Under the Insurance Agreement Law, the policyholder is required, before granting the policy, to inform the insurer on any circumstance known to him which could be relevant to the decision-making process. In case of doubt, every circumstance expressly enquired by the insurer is considered relevant.

At present, no insurer is requesting results obtained from genetic tests to take a policy, although certain medical tests are performed the information of which is protected under the Law of Personal Data Protection including health and genetic information.

In the Report submitted to the Insurance Consultation Board in May 2005, SEAIDA proposed the eventual amendment of the Insurance Agreement Law to include the effects of knowing the human genome in the duty to disclose information by the insurance applicant, as in the case of the Swiss Federal Law. This modification has also been included in the Conclusions of the Conference "25 Years of the Insurance Agreement Law: Experiences and Possible Modifications", held on October 3-4 2005.

4) South Africa

No such legislation or case law exists. The opinion of the National Section is that such a request will not be *per se* unlawful, provided that only relevant and material information gleaned from such an examination may be taken into account for the assessment of the risk.

4) Switzerland

No, not regulated (it could be requested). Generally, the insurer is entitled to asking it but the insurer cannot request a genetic exam.

4) Uruguay

There exists no legislation, doctrine or case law in this regard.

In the opinion of this National Section, if the potential policyholder knows the results of his genetic exam and does not disclose them, he would be incurring in misrepresentation and, therefore, the insurance would be null, pursuant to the provisions of our legislation (Code of Commerce, section 640). The results of genetic exams are a major factor in the risk evaluation upon entering into an agreement.

We consider that it would be legal for the insurance company to request such exams only with the applicant's previous consent and only if the denial of the risk is fully and professionally grounded.

In the opinion of the Uruguayan Section, the rule should establish the possibility of applying an extra premium based on the aggravation of the risk, as it appears from the genetic results obtained, similarly to the case of family background exams, with some differences. In case of doubt in the grounds offered, the risk should be accepted.

5.- Do the legislation, doctrine and/or case law in your country contemplate the applicants' "right to not know"? Would it then be arbitrary to submit them to a genetic exam before taking a life insurance? Should your country gave no legislation, doctrine and/or case law in this regard, please express the opinion of your National Section.

5) Australia

The ALRC Report 96, mentioned above, in paragraph 25.55 and 25.56 addressed the issue, in particular the last sentence of the paragraph specifically addressed the question of the policyholders right to not know. The complete paragraph is set out below for convenience:

"25.55 In February 1999, IFSA released an agreed draft industry policy, which was lodged with the Australian Consumer and Competition Commission (ACCC). IFSA applied to the ACCC for an authorization in relation to a number of clauses in the policy which could be construed as anti-competitive. This was because the draft policy impeded insurers from competing on the basis of price in so far as it prohibited 'preferred risk underwriting', that is, the practice of discounting premiums to persons who present less than standard risk. In support of its application, IFSA submitted that the primary purpose of the draft policy was to ensure that insurers did not initiate genetic tests. The draft policy had been framed in this way to prevent indirect coercion to undergo a genetic test, and thus to respect an applicant's 'right to not know' about a genetic disorder or predisposition.

25.56 The *Trade Practices Act 1974* (Cth) provides that the ACCC may grant an authorization if satisfied that any anti-competitive aspect of the arrangements or conduct is outweighed by the public benefits arising from the arrangements or conduct. In November 2000, the ACCC granted IFSA a two-year authorization, noting the establishment of this Inquiry, 'the complex issues involved', and the need to provide a 'breathing space' during which these issues could be debated and government policy developed. The ACCC concluded that:

Ensuring that IFSA's members do not require applicants for insurance to undergo genetic testing, and that applicants will not be indirectly influenced into undergoing such tests, is likely to result in benefit to the public. In particular, the Commission considers that there is public benefit in avoiding insurer-initiated coercion to undertake genetic testing.
25.57 Since the ACCC authorization, IFSA has further developed the draft policy and formalized it into an industry standard (IFSA Standard 11.00—Genetic Testing Policy). In December 2002, when the initial two-year authorization expired, the ACCC granted an interim authorization in relation to the relevant clauses, which will be in force until the ACCC issues its draft determination for comment. At that time the ACCC will reconsider the interim authorization."

5) Belgium

Together with the arguments of medical nature, there is a number of strong legal arguments that are invoked. In the Belgian way of legal thinking the main legal argument is drawn from considerations on the protection of privacy. The genetic profile, so it is claimed, is part of the inner "sanctum" of each person, that must not be shared with third persons. In addition "the right to not know" can be considered as a personality right, especially while health rules are involved for which there is no cure, at least not *hic et nunc*.

5) Brazil

There is no legislation, doctrine or case law in this regard. The Section has no opinion due to the complexity of this issue though it is under study.

5) Colombia

Not in principle. However, it is worth considering that sections 15, 16 and 20 of the Political Constitution of Colombia protect the right to intimacy, the free development of one's personality and free information, and from which one could infer the right to not know.

"<u>*Section 15*</u> *All individuals are entitled to their personal and familiar intimacy and to their own name and the State shall respect and enforce these rights. They are further entitiled to know, update and rectify the information collected in their data banks and in public and private agencies records.*

The freedom and other guarantees enshrined in the Constitution shall be safeguarded in the data collection, treatment and distribution.

All mailing and other private forms of communication are inviolabe. They may only be intercepted or registered under a court order in the cases and under the conditions established by law.

To all fiscal and legal effects and in case of inspection, surveillance and intervention by the State, the production of accounting records and other private documents may be requested, under the conditions established by law".

<u>*Section 16*</u> *"All individuals are entitled to the free development of their personality to the extent imposed by the rights of other individuals and the legal order."*

<u>*Section 20*</u> *"All individuals are guaranteed their freedom to express their thoughts and opinions, their freedom to inform and receive true and impartial information and to found mass means of communication."*

5) Denmark

As mentioned, a general prohibition against using information of gene applies, see above under 2.

5) Ecuador

There exists no legislation in this regard but the right to not know cannot be restricted by law, not even under a contract. No person can be forced to undergo a medical test. This is the case, for example, of genetic exams on pregnant women, which are voluntary.

5) El Salvador

There is no legislation in this regard. In the opinion of this National Section, there would not be any arbitrariness if an applicant is asked to perform a genetic exam before taking an insurance policy, since this is optional.

5) France

The doctrine considers that this prohibition is based on the individual human rights. The insured is entitled to "not knowing". This exam requested by the insurer would be a violation of the individual right of the insured.

5) Germany

Art. 2 section 1 and Art. 1 section 1 of the German Constitution (*Grundgesetz,* GG) protect the personal rights of every person (*allgemeines Persönlichkeitsrecht*). Thus, everybody is protected from unreasonable intrusions into his privacy. This also includes the right to not know about one's genetic structure

5) Greece

In general terms, it is covered by the principles of the protection of personality and value of human beings, as well as the principle of proportionality.

5) Hungary

Although the law does not establish any restriction, local insurers do not require this exam in practice.

The opinion of the Hungarian Section is that it is acceptable, as evidence of the health condition, but it should not be demanded as a previous condition.

5) Indonesia

Legislation does not say anything, no case law has been produced in this regard. In the opinion of this National Section, the insurer will not fulfill the request of the proposed insured, unless they feel it is necessary /relevant to the coverage taken by him.

5) Italy

There exists no specific legislation in this regard. The right "to not know" is unanimously inferred from section 10, subsection 2, of the Oviedo Convention and from the general principle of respect for the human dignity which is one of the pillars sustaining our constitutional legal order (section 2 of the Constitution). This right is however restricted by another individual’s and the community’s interest in gathering useful information for their welfare; in this case, the right to one’s health, provided for in section 32 of the Constitution prevails. Against this backdrop, in 1999 the privacy Guarantor, in a case related to a woman suffering a birth disease who, willing to have a child, had undergone several genetic tests, established that in order to protect an individual’s psycho-physical wellness, health data – specially a relative’s genetic data- can be legitimately obtained at clinics or hospitals, even with no previous consent from them or even if they reject such request.

5) Japan

No. In Japan, life insurance is widely spread. As a result, it is not possible to affirm that there exists freedom upon taking a life insurance or not. Therefore, there exists a possibility of infringing the right “not to know”

5) Paraguay

Although there exists no legislation, doctrine or case law in Paraguay on the applicant’s “right to not know” and that it would then be arbitrary to submit them to a genetic exam before taking an insurance, IT IS NOT LESS TRUE THAT THE PARTY WHICH IS MORE INTERESTED IN THE RESULT OF THE EXAMS REQUIRED TO TAKE AND LIFE INSURANCE IS THE APPLICANT.

Regarding the opinion held by this AIDA Paraguayan Section on this matter, the insurable individual “is always interested in knowing the results of the tests performed”, even if he has to know that he will live for only one month more. And against these wishes, it is impossible to raise legal or administrative provisions. If fact, they must be people of certain culture and financial condition.

5) Portugal

As previously mentioned, Portuguese law (Article 12 of Act 12/2005) prohibits genetic testing to applicants for personal insurance (Health and Life Insurance).

Even if this were not the case, the individual concerned is the owner of the information on health (Article 3 of Act 12/2005):

- Information on health, including any clinical data recorded which is the result of tests or other subsidiary examinations, interventions and diagnoses, belongs to the individual concerned and this information is held in the health care units. It cannot be used for any purposes other than health care, research into health and other purposes established by law.

- The owners of information on health have the right, if they wish, to be informed of all medical records which concern them or to have this information conveyed to a person appointed by them, except in exceptional and duly justified circumstances in which it can be unequivocally demonstrated that this may be damaging to them.

- Information on health can be accessed by the owner of this information or by a third party, with the consent of the individual concerned, through a properly qualified doctor chosen by the owner of the information.

5) Spain

Act 41/2002, governing clinical information and documentation, protects the patient’s right to not know. There is no general legal provision on the right of persons not to know their current or future health condition.

5) South Africa

No such legislation exists.

The general principles of good clinical medical practice for purposes of all medical tests and examinations require a general informed consent by the patient as to the procedures as well as the effect of the results.

Pre-test counseling as well as post-test counseling should also include information on the patients rights relating to the results of the tests, which should include disclosure of the “right to not know”. During the disclosure of the results as well as during the post-test counseling, subsequent informed consent by the patient to receive the results, and for the use of the test results, must be obtained.

The opinion in medical circles is that there should be no reason why the patient could not waive his right to receive the results. It is also possible that the patient could request that the results be disclosed only to the patient’s medical practitioner, and that the practitioner could advise him merely of the effects of the results and whether, in the practitioner’s opinion, the patient should or should not take cognizance of the test results.

Once again the provisions of section 12(2) of the Constitution apply, namely that everyone has the right to bodily and psychological integrity, that includes: the right to make decisions concerning reproduction, the right to security and control over their body, and not to be subjected to medical or scientific experiments without their informed consent. In view of these provisions, it is the opinion of the National Section that the right to privacy, information and the right to bodily and mental integrity should not prevent an insured to invoke his rights not to know.

5) Switzerland

There is no legislation in this regard. It is understood that it derives from general principles on the protection of individual rights.

5) Uruguay

See the answer to the previous point. In our opinion, although we acknowledge the right to “not know”, it has to adjust to the right to information and the freedom to trade.

6.- Does legislation, doctrine and/or case law in your country contemplate the fact that if insurers could ask genetic tests before taking a life insurance, actuarial calculations may change? In case your country does not have legislation, doctrine and/or case law, could you please give the opinion the National Section has on the matter.

6) Australia

The answer to Question I 5 above explains how life insurers by their industry Code of Practice are barred from requesting a genetic test from prospective policyholders.

Thus the answer to this question in regard to actuarial estimates is no, legislation does not exist and the Australian Chapter is not aware of any case law on the topic either.

6) Belgium

It would appear indeed that when faced with the numerous and profound reasons that relate with the protection of fundamental rights, the (economic) interest of the insurer in better knowing the risks and in being enabled to better differentiate risks must of course fade. Market imperatives cannot prevail upon the basic societal desire to solidarity.

6) Brazil

There is no legislation, doctrine or case law in this regard. And the Section has no opinion due to the complexity of this issue (which is under analysis).

6) Colombia

There is neither legislation nor case law regarding this matter. However, if the insured accepts, the insurer may have access to his genetic tests.

The Insurance Law requires that tariffs be set according to the risk and it forbids the insurer to receive payments below the risk rate. Therefore, if the insurer had authorised access to the insured’s genetic information, actuarial estimations could vary.

In this regard, it is necessary to underline that actuarial estimations on policyholders’ mortality are based on the previous experience. It would then be necessary for sufficient time to go by (at least 5 years) and an amount of 100,000 policyholders subjected to genetic exams in order to fix a new mortality rate and, then, apply the mortality cost to their life insurance.

6) Denmark

As mentioned, a general prohibition against using information of gene applies, see above under 2.

6) Ecuador

Certain constitutional principles must not be affected by requiring genetic exams before taking an insurance.

6) El Salvador

There exists no legislation in this regard. It is the opinion of this National Section that, if genetic exams can be requested, notarial estimations would be modified since they would probably be carried out on the basis of more certain information.

6) France

The actuary experts consider that their estimation would be affected if insurers would request genetic exam before contracting a life insurance.

6) Germany

There is the concern that the life insurance market would change substantially, if insurers could request genetic examinations before entering into life insurance policies. People with bad genetic information would either get a policy with high premiums or no policy at all. The “good” risks would be able to enter into a contract with low premiums.

6) Japan

No. Although our national section takes this aspect into consideration, the introduction of such genetic exam has little influence.

6) Paraguay

The answer to the first part of the question is similar to that of the previous question. As regards the second part we say: in fact, actuarial calculations vary according to probabilities obtained through genetic tests done before taking life insurance. Should there be no change, it would be a deceit to the insured party.

6) Portugal

There is no legislation in this regard. Insurers may not carry out genetic testing on those applying for life insurance (Article 11, point 2 of Act 12/2005).

6) South Africa

No such legislation exists. It is the opinion of the National Section that actuarial estimates will definitely be affected.

6) Spain

There is no rule on the matter. SEAIDA has no specific ruling on this.

6) Uruguay

The Uruguayan Section refers to answer 4 underlying that we consider that actuarial estimations could be modified and, therefore, the corresponding extra-premium would also be altered.

6) The National Sections of Greece, Hungary, Indonesia, Italy and Switzerland are studying this issue.

7.- Should the answer to the previous question be affirmative: Do the legislation, doctrine and/or case law in your country contemplate the possibility that a genetic examination be requested to the prospective policyholder; or does the prospective policyholder's individual rights prevail over the policyholder's financial interests?

7) Australia

There is no legislation or case law and the IFSA Code of Practice bars insurers from initiating a genetic test by a prospective insured.

7) Belgium

It would appear indeed that when faced with the numerous and profound reasons that relate to the protection of fundamental rights, the (economic) interest of the insurer in better knowing the risks and in being enabled to better differentiate risks must of course fade. Market imperatives cannot prevail upon the basic societal desire to solidarity.

7) Brazil

This issue is under review, as informed by the National Section.

7) Colombia

The policyholder's individual rights must prevail over the insurer's financial interests. The insurance company could request the performance of a genetic test, among the medical insurability requirements (this is currently requested depending on the applicant's age and insurance amount: general medical exam, urine test, electrocardiogram, thorax X-ray, blood sample for several lab tests including cholesterol, triglicerids, acid phosphatasa, uric acid, HIV, etc.); with previous consent from the insured.

If no consent from the insured party is obtained, the only thing the insurer can do is to deny insurance or exclude any condition which could have been avoided if the genetic exam would have been performed.

The latter applies with exceptions made regarding private law constitutionality mentioned in the previous answer.

7) Denmark

See 6.

7) Ecuador

See answer to the previous point.

7) El Salvador

There exists no legislation in this regard. Considering background information in our country, individual rights always prevail over the insurer's financial interests.

7) France

The doctrine considers that the policyholder's individual rights prevail over the policyholder's financial interest. The insured can not waive to its individual human rights.

7) Germany

The self-regulation-statement of the GDV (*Selbstverpflichtungserklärung des GDV*) states that life insurers will not ask an applicant to undergo a genetic examination. In addition, the applicant generally does not have to provide the insurer with genetic tests which have already been taken in the past. In so far, the individual rights of the policyholder prevail over the financial interests of the insurer.

7) Greece

The use of this data must comply with the principle of proportionality. In the light of this principle, there must be a reasonable relation between the extent and duration of a restriction of a constitutionally recognized and protected right and the legal purpose for this particular restriction (at which this particular restriction aims at).

The restriction is not reasonable, e.g. where the restriction of the right:
a) is improper for achieving the legal purpose aimed at, or
b) is more severe than the extent necessary for achieving the legal purpose aimed at, or
c) is disproportional in comparison with the reasons that caused the imposition of the restriction or its aim.

In the light of the principle of proportionality, the Opinion 15/2001 of the Greek Authority on protection of personal data (D.P.A.) points out that: "The methodology and practical framework of the procedure must comply with the principles of the protection of personality and value of human beings, as well as with the principle of proportionality, which is crucial for the maintenance of the equilibrium between the affected rights and the, admittedly important, pursued public interest".

In addition, "according to Law 2,472/97 on personal data protection, article 4, personal data must be collected fairly and lawfully for specific, explicit and legitimate purposes and fairly and lawfully processed in view of such purposes. Moreover, personal data must be adequate, relevant and not excessive in relation to the purposes for which they are processed at any given time. The above principle of purpose presupposes the precise definition of the purpose for which biometric data collection and processing will take place. The appreciation of the issues of proportionality and purpose legitimacy is necessary, taking into consideration the risks posed by the use of biometric technologies in relation to the protection of the individual’s fundamental rights and freedoms” (Decision 9/2003 of D.P.A.).

7) Hungary

Under discussion. The legislation does not offer a clear answer.

7) Paraguay

See previous answer.

7) South Africa

The provisions in the Constitution on the rights of the individual as mentioned above apply as supreme law. The financial interests of the insurer are not specifically protected in the Constitution. A clause does however exist concerning the limitation of constitutional rights. Section 36 states that rights in the Bill of Rights may be limited only in terms of law of general application to the extent that the limitation is reasonable and justifiable in an open and democratic society based on human dignity, equality and freedom. All relevant factors must be taken into account, including the nature of the right, the importance of the purpose of the limitation, the nature and the extent of the limitation, the relation between the limitation and its purpose, and less restrictive means to achieve this purpose.

It is the opinion of the National Section that the criterion of public interest as per the Constitution will determine whether the individual’s rights may be contractually limited or infringed upon at the expense of the insurer’s financial interests. The opinion is further that the possibility of the insurer’s rights enjoying precedence over the insured’s fundamental human rights is very slim.

7) Spain

There exists no legislation in this regard.

7) Uruguay

As explained above, there exists no legislation, doctrine or case law in this regard. In the opinion of this National Section, the human genome issue should not be raised as a conflict between individual rights and the economic interests of insurers.

We believe that insurers could eventually request a genetic exam with previous consent from the insured and, based on its results, they could eventually fix an extra premium should the risk be aggravated.

On the other hand, we consider that the trend would be to balance the interest of the insurer by minimising the risks and their own interest in not losing applicants by establishing excessive insurability requirements or extra premiums and, on the other hand, the interest of applicants in having an insurance according to their needs and feeling confident with coverage obtained.

7) In the case of Hungary, Indonesia, Italy, Japan, Portugal and Switzerland, this issue is under consideration

8.- Do the legislation, doctrine and/or case law in your opinion consider it possible for an insurer to question any prospective policyholder on whether he/she has undergone a genetic exam before taking a insurance? If not, please express the opinion of your National Section in this regard.

8) Australia

As mentioned above, there is no legislation in Australia that governs insurers actions in this context. However, the IFSA Code of Practice states that insurers may request that all existing genetic test results be made available.

The key elements of the IFSA Genetic Testing Policy are as follows:

“ Insurers will not initiate any genetic tests on applicants for insurance.
Insurers may request that all existing genetic test results be made available to the insurer for the purpose of classifying the risk.
Insurers will not use genetic tests as the basis of ‘preferred risk underwriting’ (offering individuals insurance at a lower than standard premium rate).
Members must provide their employees and authorized representatives with sufficient information and training so that they understand the content and meaning of the Standard so far as it relates to their particular jobs and responsibilities.
Insurers will ensure that results of existing genetic tests are obtained only with the written consent of the tested individual.
The results of a genetic test will be used only in the assessment of an insurance application in respect of the individual on whom the test was conducted.
Insurers will ensure that strict standards of confidentiality apply to the handling and storage of the results of genetic tests.
Insurers will provide reasons for offering modifications or rejections to applicants in relation to either new applications or requests for increases on existing policies.
Insurers will have a competent and efficient internal dispute resolution system to deal with complaints relating to underwriting decisions involving a genetic test result.”
Source: “ALRC 96 Essentially Yours. The Protection of Human Genetic Information in Australia.

8) Belgium

There is however a problem in the situation where genetic tests have been carried out - e.g. for therapeutic or scientific reasons - and where the results are known to the candidate. As we have seen the absolute ban on communication of data will prevent the insured, even if he would be ready or willing to do so, to inform the insurer. The bad risks (those whose genetic profile is unfavorable) will be inclined to seek insurance coverage while the good risks may get an incentive not to obtain insurance for specific risks. We find ourselves in front of a true situation of “adverse selection”. The dangers related to this problem are such as to threaten the equilibrium and indeed the very survival of the insurance company (casu quo: of the insurance industry) and such a danger is of such gravity that it might live up against the interest of the insured. Seen from this angle, there are arguments to oblige the insured who has acquired knowledge of his genetic profile to communicate it to his insurer. In order to encounter the argument that such obligation may discourage people to submit to (otherwise highly useful) genetic screening, a compromise may be found in limiting the obligation of communication to those cases in which more than “normal” or “socially acceptable” amounts of coverage are sought.

8) Brazil

According to the legislation in force, enquiries on genetic exams performed are not forbidden.

8) Colombia

Not contemplated. The insurance law only states that the applicant must sincerely inform the facts or circumstances which may restrict the risk condition (section 1058, Code of Commerce) which can be made by following a questionnaire prepared by the company.

In this case, the insurer can include this question and consider the answer in the physical risk assessment and its qualification as standard or aggravated risk.

8) Denmark

No, see 2.

8) Ecuador

In principle, an insurance company may take this information into consideration but, as indicated above, the discriminatory effects may prevent this type of policies and they could not be mandatory.

There exists no doctrine or legislation in this regard. However, it is clear that requesting a genetic exam is not possible in the case of an insurance agreement although requesting background information which the applicant may have could be valid. The problem is that this information –even if willingly provided by the applicant- may not be used with discriminatory effects.

8) El Salvador

In El Salvador, the legislation establishes that the applicant must provide information to the insurer on all the facts he/she knows which may be relevant to assess the risk. Therefore, if the applicant has performed a genetic exam, the insurer should be informed accordingly.

8) France

Under the French law, the insurers are allowed to question any prospective policyholder on its health, but not whether he has undergone a genetic exam or, if so, to communicate the exam results.-

8) Germany

According to the self-regulation-statement of the German Insurance Association, it is only feasible for an insurer to question a prospective policyholder as to whether he or she has had a genetic examination before taking out insurance if the insurance sum surmounts 250,000 Euros. This is so, because at such a high coverage, the insurance companies recognize an increasing risk of abuse.

8) Greece

See previous answers.

8) Hungary

Under discussion. The current legislation does not offer a clear answer.

8) Indonesia

This matter is under analysis.

8)Italy

No. See 4.

8) Japan

Under the insurance law, an insurance company may not request an applicant information which is additional to the usual medical questions made by life insurance companies.

8) Paraguay

See previous answer (No 7).

8) Portugal

Insurers may not carry out genetic testing on those applying for life insurance (Article 11 (2) of Act 12/2005) or use any genetic information obtained from previous genetic testing on their current or potential clients for the purposes of life or health insurance (Article 12 (3) of Act 12/2005).

8) South Africa

There exists no legislation or case law with specific reference to disclosure of genetic information. The situation will be covered by the common law relating to the disclosure of information and the constitutional right to privacy as discussed above. The duty of a prospective insured to disclose relevant and material information to the insurer applies. It is the opinion of the National Sector that such a questioning would not be unlawful, and that the insured should disclose any material information that is to his knowledge, and may choose not to disclose any results of previous genetic examinations that are not relevant for the assessment of the specific risks to be insured.

8) Spain

The Spanish legislation does not consider this case.

8) Switzerland

This case is under analysis.

8) Uruguay

As stated above, in our opinion, it is possible to ask the applicant if he/she has undergone any genetic exam.

9.- Does legislation, doctrine and/or case law in your country consider that insured incurs in concealment if he denies having done a genetic test, when in fact he has undergone one before taking the insurance? In case there is no legislation, doctrine and/or case law in your country on this matter, could you give us the opinion of the National Section?

9) Australia

As mentioned above, there is no specific legislation in Australia that governs insurers actions in this context. However, as stated in the ALRC Report number 96:

"The Insurance Contracts Act 1984 (Cth) sets out at Section 21 that an applicant's duty of disclosure is to reveal to the insurer all information that is known, or which reasonably ought to be known, to be relevant to the insurer. In practice, disclosure occurs initially when applicants for insurance answer questions posed by insurers in the application form or proposal. The duty may oblige an applicant to give further information to the insurer if the initial answers are insufficient to satisfy the duty. The information disclosed is used for the process of underwriting (or risk rating), in which the insurer assesses whether to accept the insurance application and, if so, on what terms.

Section 22 of the Insurance Contracts Act requires the insurer to inform the applicant clearly and in writing (usually in the insurance brochure and application) about the general nature and effect of the duty of disclosure.

9) Belgium

This issue is under analysis.

9) Brazil

Yes. If the applicant fails to inform about a genetic exam, he incurs in misrepresentation.

9) Colombia

Once the question is included in the questionnaire on the applicant's health condition, if the applicant has undergone this test and does not include this information or provides a negative answer, he incurs in misrepresentation.

There is no express reference to the duty to disclose the result of genetic tests in practice. This issue would be covered by the principle of Good Faith set forth in section 1058 of the Code of Commerce which was declared attainable under the resolution of the Constitutional Court in May 15 1997, of which Jorge Arango Mejía was reporting judge.

Some extracts of this decision are included due to their relevance:

"Sustaining that an insurance agreement is <u>*uberrimae bona fidei contractus*</u> *means that in this case the usual diligence, decorum and honesty required in all contracts does not suffice and, therefore, such conducts need to be expressed with maximum quality; i.e., taken to the extremes… Naturally, the need to enter into this contract with qualified good faith applies to the taker as well as to the insurer. However, the corporation centers its interest on the burden of the pre-contractual information provided by the insurance taker since such information could result in any of the grounds for nullity set forth in section 1058 of the Code of Commerce. In the opinion of the Constitutional Court, it is clear that the special termination regime applied in case of relevant misrepresentation arises from clear objective foundations, established by the nature of the things: the inevitable need to contract collectively, which limits the insurance company, and the subsequent impossibility to physically inspect every and all the risks taken, which explains why the insurer depends on the taker's honesty and why the latter must always act with maximum good faith. Finally, the commutative law helps to understand that, if the insurer, as seen, is usually bound to proceed on the basis of the individual's confidence and the taker's statements, it is fair and reasonable to establish that the tradition of such an unusual trust be punished with penalties exceeding ordinary levels … In fact, if, in spite of the taker's breach of his duty to provide sincere information on circumstances which are material to the risk condition, an insurance policy has been granted in good faith, the insurance duty is grounded on an error and, sooner or later, as a result of the rescission, nullibility or relative nullity will therefore exceed the legal sphere. This, notwithstanding untimely considerations on the need that the misrepresentation be related to the cause of the loss since the intention is to restore or safeguard the contractual balance broken* <u>*ab initio*</u>*, upon subscribing the insurance agreement and not upon the occurrence of the loss. The cause-effect relationship is not, as the plaintiff sustains, linking the omitted or altered risky circumstance but it is rather attaching the mistake or fault to the taker's consent…"*

9) Denmark

No, see 2 and 4.

9) Ecuador

This kind of misrepresentation is not regulated and there exists no legislation in this regard. In all events, misrepresentation is related to the knowledge of genetic antecedents, which will not always occur on the previous case.

9) El Salvador

Any fraudulent or negligent inaccuracy or omission in the statements made by the applicant which are requested by the insurer to assess the risk, entitles the insurer to terminate the insurance contract, under our legislation.

9) France

Under the French law (Insurance Code. Article L.113-2) the insured is not obliged to declare any circumstance concerning its health; he is only obliged to answer completely and correctly to the insurer's questions. The insurer is not allowed to question the insured on genome. The doctrine considers that there is not misrepresentation if the insurer asks the policyholder he has undergone a genetic exam. The question would be avoided by the judge, even the answer was false.

9) Germany

According to the self-regulation-statement of the GDV, the insured does not incur in misrepresentation if he/she lies about the availability of a genetic test made in the past. However, at an insurance coverage which exceeds 250,000 Euros, the GDV considers the information of genetic data to be "relevant information" for the insurer. Thus, if the policyholder lies about the genetic test, it would be a misrepresentation.

9) Italy

According to the case law of the Supreme Court of Cassation: "in order for an insurance contract to be considered voidable, pursuant to C.C. section 1,892, the existence of a fraudulent or false statement is not sufficient; it is necessary for it to entail an attitude intended to exert influence on the accurate assessment of the risk which the agreement is based upon". In genetic tests, however, the medical science never expresses itself in accurate terms but in terms of probability (screenings). Furthermore, as mentioned, apart from considering the right to one's health inviolable, it sets over the development of the business activity (section 41 of the Constitution) the limit of human dignity.

According to better doctrine, this means that in an hypothetical conflict between the insurer, in search of reducing risk margins in order to increase benefit, and the insured , who subscribes a health insurance agreement to control his own health, the legal organization should provide better protection to the latter.

9) Japan

No, it is not considered. The Japanese Section does not have an unanimous opinion in this regard.

9) Paraguay

If the applicant has undergone a genetic exam, before taking an insurance, and upon being enquired by the insurer, provides a negative answer, the applicant incurs in MISREPRESENTATION.

9) Portugal

Policyholders may, if they wish, disclose whether they have undergone genetic testing. However, since this type of information is legally classified as information on health (Article 6 (1) and Article 4 (1) of Act 12/2005), it is considered confidential. The results of genetic testing are the property of the individual concerned and even if they allow third parties access to this information, it can never be used by insurers, as Article 12 (3) of Act 12/2005 expressly forbids this. In short, this information cannot be used by insurers in practice and therefore they should not request it.

9) South Africa

There exists no specific legislation or case law on genetic tests. The situation will once again be covered by the common law that where the insured fails to disclose material information, he is liable for a misrepresentation made by omission, rendering the contract voidable and causing him to be delictually liable where he intentionally or negligently omits to disclose relevant information. Due to the prospective insured's intimate knowledge of all facts regarding the risk which he wants to transfer to the insurer, a legal duty requires him to disclose all *relevant material information* to the *insurer* within his actual or constructive knowledge. This enables the insurer to decide whether he is prepared to accept the transfer of risk from the insured and to reach consensus with the insured [*Mutual & Federal Insurance Co Ltd v Oudtshoorn Municipality* 1985 1 SA 419 (A); *Anderson Shipping v Guardian National Insurance* 1987 3 SA 506 (A); *Qilingile v SA Mutual Life Assurance Society* 1993 1 SA 69 (A); *De Waal NO v Metropolitan Lewens Bpk* 1994 1 SA 818 (O); *SA Eagle v Norman Welthagen Investments* 1994 2 SA 122 (A); *Commercial Union Insurance Co of SA Ltd v Lotter* 1999 2 SA 147 (SCA)]. The law must be interpreted and applied by taking constitutional rights and values into account. The opinion of the National Sector is that there should be no reason why these normal principles should not also apply to genetic examination results, as briefly summarized

9) Spain

The insured has the general duty of informing every circumstance known to him which could have an influence on the risk assessment (section 10 and 89 of the LCS), duty which must be fulfilled upon taking the insurance and answering the questionnaire provided by the insurer. If the insured is asked on any item in the questionnaire, he must provide an answer under the penalty of incurring in misrepresentation. Most of the Spanish doctrine, which holds that it is not possible to perform genetic tests without the applicant's consent, has not expressed its opinion on this issue. In principle, we do not know any insurance company in the Spanish market which includes this type of information in its questionnaires.

9) Uruguay

Section 640 of the Code of Commerce rules misrepresentation. Pursuant to its provisions, “any false statement or failure to disclose circumstances known to the insured, even in good faith, which, in the opinion of experts, may have impaired agreement or modified its conditions, should the insurer have known the actual conditions, renders the agreement null and void”. It rules on misrepresentation in general terms and not only would it be included, in the case of genetic exams under consideration, among the circumstances the omission of which could result in misrepresentation.

9) In the case of Greece, Hungary, Indonesia and Switzerland, this issue is under analysis.

10. Does legislation or case law of your country consider it legal for insurers to identify two risk groups: one group including policyholders who have had genetic examinations and the second group including those who have not? If there does not exist any regulation on this matter, please inform us of your National Section’s opinion.

10) Australia

As mentioned above, (See answer to Question H3), there is no specific legislation in Australia that governs insurers actions in this context.

However, if insurers do keep separate “risk group” records, it is submitted that this can only be done in the context of and in compliance with the “Code of Practice”. In addition, the genetic information required to populate such a database cannot be specifically requested by the insurers thus, if such risk grouping does go on amongst insurers in Australia, it is only from those customers of individual insurer’s and where such customers themselves are already in possession of such information.

10) Belgium

It would not be legal, under the legislation in force.

10) Brazil

There exists no legislation in this regard in Brazil. The National Section considers it possible to identify two risk groups.

10) Colombia

Not considered. But we consider it legal for insurance companies to form two risk groups with and without genetic tests, with observation purposes only, to carry out mortality and

morbility tests with previous consent by the insured, as it is currently seen whenever information is reported to the financial system risk agencies.
Under the law, the insurance company sets its tariffs according to the risk. Although a case of legitimate discrimination could rise, given the legal developments described, it could attain the opposing character.

10) Denmark

No, see 2 and 4.

10) Ecuador

Not regulated. In the area of medical professionals, identifying two different groups of insured individuals in terms of their genetic risk would be unacceptable because this is not always a hundred percent certain. We know the case of a suit for medical negligence, raised by the patient because the doctor failed to inform her about the convenience of performing a genetic test during the pregnancy.

10) El Salvador

There is no specific legislation in this regard, but we do consider that we would be before a case of discrimination which is protected by the law on discrimination which we do have.

10) France

The doctrine considers that the insurers are not allowed to identify two risk group (with or without a genetic exam) neither to reject the proposal of the persons without a genetic exam; neither establish the amount of premiums in regard of these two groups. This would be a discrimination forbidden by the criminal Code.

10) Germany.

There is no such legislation or case law in Germany considering a breakdown of the insured in two groups in regards to the existence of genetic examinations.

10) Italy

No. We refer to the previous point on the impossibility of insurers to require genetic tests from their own insured and/or attend successful cases only (even for statistical purposes).

10) Japan

This issue is controversial in our area. Our Section does not have an unanimous opinion in this regard.

10) Paraguay

Since Paraguay has no legislation, doctrine nor case law regarding genetic tests, our opinion in the Paraguayan section is that there must necessarily be two risk groups grounded on technical and actuarial principles. Should this not be the case, the separation would have no sense.

10) Portugal
See previous answer (9).

10) South Africa
No specific legislation exists in this regard, except for the constitutional provisions concerning unfair discrimination. Where the discrimination is fair in the interests of the public at large, such discrimination could be found to be constitutional and therefore lawful. It is the opinion of the National Sector that there should be no reason why such risk identification could not be allowed.

10) Spain
There are no rulings in this regard but, in principle and in virtue of the non- discrimination principle, it does not seem possible.

10) Uruguay
No such rule exists in this regard but, in our opinion, such group would be considered discriminatory.

10) In the case of Greece, Hungary, Indonesia and Switzerland, this issue is under analysis.

11). Does legislation or case law of your country contemplate the possibility that if legislation is passed prohibiting insurers from requiring the policyholder to take a genetic examination before taking out insurance, sales of life policies would fall? If no regulation exists, please inform us of your National Section's opinion.

11) Australia
First: It is submitted that the IFSA Code of Practice, mentioned above, is not signed by all insurers in the Australian market, therefore theoretically some insurers may, in fact, be requesting genetic tests be undertaken prior to acceptance of proposals? Is this a likely scenario?

Second: The ALRC conclusion was as follows:
"Ensuring that IFSA's members do not require applicants for insurance to undergo genetic testing, and that applicants will not be indirectly influenced into undergoing such tests, is likely to result in benefit to the public. In particular, the Commission considers that there is public benefit in avoiding insurer-initiated coercion to undertake genetic testing.[37]

25.57 Since the ACCC authorization, IFSA has further developed the draft policy and formalised it into an industry standard (IFSA Standard 11.00—Genetic Testing Policy). In December 2002, when the initial two-year authorization expired, the ACCC granted an interim authorization in relation to the relevant clauses, which will be in force until the ACCC issues its draft determination for comment. At that time the ACCC will reconsider the interim authorization."

In the light of this statement, it is submitted that an insurer would not risk the attention of the ACCC in the pursuit of such information

Third: The ALRC Report was completed in 2002, thus the question needs to be asked, "what is the current position in regard to legislative control or an update of the Report findings"? Unfortunately there is no answer to that question that we are aware of at this time.

11) Brazil

There is no legislation, doctrine or case law in this regard. And the Section does not have an opinion due to the complexity of this issue although it is under consideration.

11) Colombia

The legislation does not contemplate this case. It would be similar to the case of the HIV test. Though insurance companies are free to include them in their insurability medical requirements, the applicant is also free to perform them or not. The answer is that in only a few cases does the insured object to do it. Insurance companies have not seen any drop in their production as a result of requiring it or not.

11) Denmark

As mentioned above prohibitions already apply demanding examinations from the proposer to illustrate his gene. It has had no effect for the sale of life insurances.

11) Ecuador

The effect is not significant.

11) El Salvador

There exists no legislation in this regard. In our opinion, the sale of life insurance would not be affected.

11) France

There was not a fall in life insurance sales after the law forbidding genetic exam.

11). Germany. There are no assessments or evaluations as to whether the sales of life policies will fall, if legislation prevents insurers from requiring policyholders to take a genetic examination.

11) Hungary

Under discussion. Current legislation does not offer a clear answer. Our opinion: such prohibition could have a considerable impact on the sales of life insurance policies.

11) Italy

No. However, if allowed, it would have an impact on sales for two reasons. In the first place, an understandable annoyance in the population for having “previsions” on their own health condition. Secondly, the consequent anti-selection would result in an inevitable increase of the premiums in the case of persons needing coverage.

11) Japan

There is no legislation in this regard. However, in Japan, under current insurance market conditions, this possibility is considered unlikely.

11) Paraguay

Considering that Paraguay has no legislation, doctrine or case law on genetic tests, it is the opinion of our National Section that a law forbidding insurers to request applicants to perform genetic tests before taking an insurance, would not affect insurance production. On the contrary, more people would be interested in carrying out medical tests because thanks to them, life expectancy would be more attractive before the alea of dying.

11) Portugal.

In our market, insurers cannot carry out genetic testing on those applying for life insurance (Article 11 (2) of Act 12/2005). The impact of this measure in terms of premium production has not been studied.

11) South Africa

There exists no legislation or case law. The opinion of the National Section is that sales will not fall, although the limits of insured amounts may be reduced.

11) Spain

As stated, Spanish insurance companies are neither requesting nor using information from genetic tests; a legislative prohibition would not affect insurance production.

11) Uruguay

In our opinion, no reduction would occur but, considering the little –almost non-existing- experience gathered in the country, we are not able to provide a grounded opinion.

11) In the cases of Belgium, Greece, Indonesia and Switzerland, this issue is under analysis.

12). Does legislation or case law of your country contemplate the possibility that if genetic examinations must be undergone before taking a life insurance, this would diminish the attractiveness of the contract, so much so that life insurance policies may disappear? If no regulation exists, please provide your National Section's opinion.

<u>12) Australia</u>
There is at present no legislation or case law in Australia on this matter.

However, the life insurers have already addressed this problem by agreeing to follow the IFSA Code of Practice. It is submitted that the problem was addressed more from the point of view of the privacy of the individual rather than the reduction of attractiveness of life insurance as such. However, it is important to notice that there were and there are life insurer's that did and do recognize such dangers.

<u>12) Brazil</u>
There exists no legislation, doctrine or case law in this regard. This Section understands that the alea would fall but not disappear, as a result of accidents, new contagious diseases, etc.

<u>12) Colombia</u>
Uncertainty would not disappear. It is worth evaluating whether genetic tests can serve preventive purposes; uncertainty applies to the moment when the disease will appear. For this reason, life insurance companies must evaluate their tariffing systems according to the insured's life habits and activities, elements which will influence mortality or the development of certain diseases.

<u>12) Denmark</u>
No, see above.

<u>12) Ecuador</u>
The infallibility of these exams could have direct consequences on the insurance alea, but, actually, there exists a management of probabilities which, with genetic exams, gains certainty. However, as stated above, the use of genetic tests in practice is unlikely since it affects basic non discrimination principles. In this regard, the situation of HIV positive persons shows that insurers have slowly changed their position from denying the risk to gradually accepting it to the extent that it can be unknown to the insured upon subscribing the agreement.

12) El Salvador

No legislation in this regard. We consider that the performance of genetic tests before taking an insurance could have a negative impact on the insurance contract alea since it would depend on more certain situations.

12) France

The doctrine considers that under the French law (Civil Code 1964) the agreement's alea may be affected, resulting in its eventual disappearance, if a genetic exam was requested.

12) Italy

Although requesting the insured to undergo a genetic test is prohibited, the doctrine and the case law have never discussed this issue. Theoretically, if the insured risk is assessed on the basis of probabilities, the results of the genetic screening, which are also valid as probabilities, may have an influence. Notwithstanding, under these conditions, the risk is assessed, in terms of the insurance, even in terms of the applicable premium, based on the statistical hypothesis which does not consider this discrimination.

12) Japan

No. In the current insurance market, this possibility is considered unlikely.

12) Paraguay

Idem previous answer.

12) South Africa

No legislation or case law exists. It is the opinion of the National Section that life insurance policies will not disappear, yet other investment and savings schemes may appear more attractive to consumers.

12) Spain

There is no legislation or case law in this regard. Regarding doctrine, it is limited and it must be considered that the results of existing genetic tests currently refer to monogenic diseases exclusively, which are rare. In the case of poligenic diseases (those affecting more than one gene and related to the individual's life style), their predictability is merely statistical in the sense that a person diagnosed with a certain disorder may not develop it in the future and, therefore, the alea factor does not disappear.

12) Uruguay

In our opinion, the insurance alea would not be affected in spite of genetic exams.

12) In the cases of Germany, Greece, Hungary, Indonesia, Portugal and Switzerland, this issue is under analysis.

13. Does legislation or case law of your country contemplate the possibility that if insurers are forbidden to request genetic examinations before life insurance contracts are made, the prospective policyholder, who knows of his/her genetic condition, could use this information to the detriment of the insurer? If no regulation exists, please inform us of your National Section's opinion.

13) Australia

The life insurers are entitled to request family histories of prospective insured's as well as any genetic test results that have been voluntarily undertaken by a proposer.

However, if information relating to the genetic condition of a proposer is known by a proposer and deliberately not disclosed to the life insurer, the insurers rights and remedies are well established under the Insurance Contracts Act 1986 in relation to the non-disclosure, fraudulent or innocent, of such information to the insurer.

13) Belgium

There is however a problem in the situation where genetic tests have been carried out - e.g. for therapeutic or scientific reasons - and where the results are known to the candidate. As we have seen the absolute ban on communication of data will prevent the insured, even if he would be ready or willing to do so, to inform the insurer. The bad risks (those whose genetic profile is unfavorable) will be inclined to seek insurance coverage while the good risks may get an incentive not to obtain insurance for specific risks. We find ourselves in front of a true situation of "adverse selection". The dangers related to this problem are such as to threaten the equilibrium and indeed the very survival of the insurance company (casu quo: of the insurance industry) and such a danger is of such gravity that it might live up against the interest of the insured. Seen from this angle, there are arguments to oblige the insured who has acquired knowledge of his genetic profile to communicate it to his insurer. In order to encounter the argument that such obligation may discourage people to submit to (otherwise highly useful) genetic screening, a compromise may be found in limiting the obligation of communication to those cases in which more than "normal" or "socially acceptable" amounts of coverage are sought.

This solution is in accordance with the one that has been carried out in a number of countries, more specifically the countries that adhere to some kind of ceiling system.

13) Brazil

There is no legislation, doctrine or case law in this regard and the Section considers this information could be used to the detriment of the insurer.

13) Colombia

It is not contemplated. However, it is necessary to remember that, under the private law, the insured must provide accurate information on the risks known to him and the constitutional right could create certain exceptions to this obligation.

For instance, policyholders knowing their genetic condition could use it to the detriment of the insurer; however, the insurance company, following the same line of thinking, could include special conditions in its agreements including exclusions or restrictions related to the genetic exams. Considering that the life insurance policy is an adhesion agreement, the policyholder would only have the alternative of adhering to it.

13) Denmark

As mentioned above, prohibitions already apply demanding examinations from the proposer to illustrate the gene.

13) Ecuador

There is no legislation, doctrine or case law in this regard but this would have a negative impact on the insurer if the policyholder has previous information on his genetic condition and intentionally fails to disclose it. The problem is of a evidentiary nature and the insurer must show that this information was not provided by the policyholder.

13) El Salvador

There is no legislation in this regard. In our opinion, the policyholders knowing their genetic background could use it to the detriment of the insurer since they could conceal this information on their health condition.

13) France

The doctrine considers that the policyholders aware of their genetic condition, entitled to the right to not know, may introduce a claim against the insurer who has revealed their genetic condition. Such disclosure could be considered a fault pursuant to sections 1382 – 1383 of the Civil Code.-

13) Germany.

Yes, there is the concern that in the case of prohibiting the insurance companies to ask for genetic data, that some applicants who know of their negative genetic data, will not mention it to the insurer on purpose and contract with the insurance company (they will especially want a high coverage sum). The concern exists because it would be unreasonable for the other insured to pay more.

13) Greece

Yes, it could be used in prejudice of the insurer.

13) Hungary

The legislation in force does not foresee this situation. This National Section does not have an opinion at this moment, though we are discussing it.

13) Indonesia

This issue is under analysis.

13) Italy

This issue has not been discussed in the doctrine or case law. In theory, there is no obstacle preventing the policyholder from using, even in court, the results of genetic exams against the insurer. It can be seen, however, that as genetic tests have no influence on the premium fixed by the insurer, the provisions of section 1897 C.C. which establishes that "if the contracting party informs the insurer any changes resulting in the reduction of the risk which, if known at the moment the agreement was subscribed, the premium fixed would have been lower, the insurer can, after receiving the information mentioned, demand the lowest premium at the moment the premium or part of the premium is due". Likewise, as the risk assessment is not influenced by the result of genetic tests (which, considering current scientific information, do not offer certainties but possibilities) the discipline on the inexistence of the risk (which renders the contract null) or the termination of the risk during the life of the insurance would not be applicable.

13) Japan

There exists no legislation in this regard. Our National Section acknowledges the possibility of an adverse selection. Another possibility would exist: that a doctor recommends a patient to take an insurance in order to get coverage for medical treatment.

13) Paraguay

The Paraguayan Section considers that no sound person or person interested in the welfare of his family could use such information to the detriment of the insurer.

13) Portugal

In our opinion the case, in theory, constitutes an invalid insurance contract, due to inaccuracies or omissions (Article 429 of the Portuguese Commercial Code).

Any inaccurate declaration, as well as the withholding of facts or circumstances known to the policyholder or person responsible for taking out the insurance, which could have had an influence on the existence of the contract itself or the terms and conditions it contains, renders the policy invalid.

If there is evidence of bad faith on the part of the individual making the declarations, the insurer has the right to retain the premium.

However, there is no practical application for this concrete case, since we are dealing with confidential information to which the insurer does not have access. Even if the insurer had access to this information (supposing that the policyholder had authorized this) they would not be able to make use of it (Article 11 (2) of Act 12/2005).

13) South Africa

There exists no legislation or case law. The current position on the duty to disclose material information, and liability due to the omission to so disclose as discussed under 9 above, will also apply here. It is the opinion of the National Section that the omission to disclose such information would definitely be to the insurers detriment and that the situation could be abused by the potential insured to his benefit.

13) Spain

As stated, the Spanish legislation does not contemplate the use of genetic data by insurers. The general doctrine on the pre-contract duty to declare the risk and the duty to communicate the possible aggravation is applicable during the life of the agreement.

13) Switzerland

This issue is under analysis.

13) Uruguay

In the opinion of this National Section, such prohibition would encourage fraudulent attitudes among policyholders who are aware of their genetic condition, thus generating and anti-selection factor which could prove dangerous to the insurer.

14.) In your country, does current insurance legislation or case law exist which provides measures to prevent such damage occurring to the insurer as mentioned above, whether by means of the doctrine of misrepresentation or in some other form? If no regulation exists, please inform us of your National Section's opinion on this matter.

14) Australia

As mentioned in the answer to Question 13, the Insurance Contracts Act and several leading High Court decisions exist in regard to the doctrine of misrepresentation.

14) Belgium

This issue is under analysis.

14) Brazil

Yes, the good faith principle requires the insured to provide true information on all health conditions known to him, including genetic data.

14) Colombia

As explained above, insurance companies do have legal and administrative tools to avoid damages including:

Inclusion of key questions in the health questionnaire.
Inclusion of specific conditions in the insurance agreement related to this matter.
Inclusion of cover exclusions or restrictions.
Penalties in case of misrepresentation.
Termination of the insurance agreement during the first two years of the life of the policyholder’s life insurance as a result of mistakes in the insurability statement.
Etc.

14) Denmark

See answer to 13. According to this National Section, the risk of abuse is rather low in this area.

14) Ecuador

Misrepresentation, at least in theory, may be alleged by the insurer if it can be established that the policyholder was aware of the circumstances which were not disclosed.

14) El Salvador

Our legislation considers the possibility of avoiding such prejudices, by giving the insurer the right to terminate the insurance agreement when the policyholder has incurred in misrepresentation.

14) France

It is not possible to avoid a public order right or an imperative provision (Civil Code section 6). The right to not know is a public order right. The insured may not waive the protection of this right in advance. Any waiver to this right would be null and invalid.-

14. Germany

Until now, there is no legislatory mean which the insurance companies could use to prevent themselves from such misrepresentation.

14) Greece

This issue is under analysis.

14) Hungary

This National Section has no opinion at the moment though this issue is under consideration.

14) Indonesia

This issue is under analysis.

14) Italy

No, for the reasons stated above.

However, according to the case law, the insured incurs in misrepresentation of the risk only if he does not answer a specific question of the questionnaire provided by the insurer and he is not bound to any positive conduct as, for example, disclosing the results of genetic tests performed to him.

14) Japan

There is no legislation in this regard. But the case law has gradually turned more strict in the case of fraud insurance and, therefore, rescission could be allowed on account of bad faith in insurance policies.

14) Paraguay

In the opinion of this Paraguayan Section of AIDA, the insurance is NULL IF SUBSCRIBED WITH THE AIM OF UNDUE ENRICHMENT...", AND MISREPRESENTATION RENDERS THE AGREEMENT VOIDABLE", with the exception that all evidence must be submitted to a court which will render the agreement null.

14) Portugal

See previous answer.

14) South Africa

The right to access information under section 32 of the Constitution determines that everyone has the right to access any information that is held by another person and that is required for the exercise or protection of any rights. Furthermore the common law doctrine of misrepresentation applies as discussed under I9 and I13 applies. The common law position found in case law may be very briefly summarized as follows: Due to the prospective insured's intimate knowledge of all facts regarding the risk which he wants to transfer to the insurer, a legal duty requires him to disclose all *relevant material information* within his actual or constructive knowledge, to the insurer. This enables the insurer to decide whether he is prepared to accept the transfer of risk from the insured and to reach consensus with the insured [*Mutual & Federal Insurance Co Ltd v Oudtshoorn Municipality* 1985 1 SA 419 (A); *Anderson Shipping v Guardian National Insurance* 1987 3 SA 506 (A); *Qilingile v SA Mutual Life Assurance Society* 1993 1 SA 69 (A); *De Waal NO v Metropolitan Lewens Bpk* 1994 1 SA 818 (O); *SA Eagle v Norman Welthagen Investments* 1994 2 SA 122 (A); *Commercial Union Insurance Co of SA Ltd v Lotter* 1999 2 SA 147 (SCA)].

14) Spain

In case of breach by the policyholder of his duty to provide true answers to the questionnaire provided by the insurer (section 10 LCS), the insurer can terminate the agreement within a month as from the moment the misrepresentation is known. If the loss has already occurred, the coverage provided by the insurer will be reduced pro rata the difference between the premium fixed and the one which would have been applicable if the actual risk had been known. In the case of the policyholder's fraudulent or negligent misrepresentation, the insurer will be free from providing coverage. In case of failure to communicate the aggravation of the risk (section 13 LCS), the insurer will be entitled to propose modifications or to terminate the agreement.

In the case of a life insurance (section 89 LCS), the insurer will not have these alternatives after the agreement is terminated and the parties may fix a shorter term, except in the case of the policyholder's fraudulent conduct.

14) Switzerland

This issue is under analysis.

14) Uruguay

As explained above, the figure of misrepresentation could lessen negative effects but it would not be applicable if the insurer is not authorized to request exams of this kind.

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As it can be observed, most of the countries agree with the opinion offered by the Argentine Section in this work, with some differences though. In general terms, no genetic tests should be required from an applicant with the aim of not infringing his individual rights and respecting his right "to not know". Whenever the amount insured is too high, some authorize this kind of tests, with the policyholder's previous consent, in order to avoid an anti-selection. In other cases, the insurers or the associations gathering them impose themselves certain restrictions.

SUPRANATIONAL DECLARATIONS AND AGREEMENTS

a) UNIVERSAL DECLARATION ON THE HUMAN GENOME PROJECT AND HUMAN RIGHTS:

In September 1997, UNESCO issued the Universal Declaration on the Human Genome Project and Human Rights, No 29C/21, subscribed by delegates from almost a hundred countries, with the sole dissidence of Canada. This declaration, in my opinion, extols and proclaims human rights by sustaining the respect for the individuals' dignity and rights regardless of their genetic characteristics; the right to respect the individual's uniqueness and diversity; the need to obtain previous, free and informed consent from the person undergoing the genetic test; but, on the other hand, section 5 "d" and section 9 leave a wide "gap" which allows signatory States to infringe human rights by allowing the performance of genetic tests on a person, without prior consent, whenever this person is not able to express it and only if a direct benefit on health can be obtained.

However, if this is not possible (direct benefit to the health) the test can be performed, exceptionally, **posing a risk on the interested**

person and with minimum coercion, whenever the research may result in benefits to the health of an age group or other persons with similar genetic conditions, provided that this investigation is carried out under the guidelines prescribed by law and is compatible with the protection of human rights (section 5 "d").

Further, section 9 establishes that, in order to protect human rights, **only the legislation will limit the principles of consent and confidentiality, if required**, ensuring the respect for the international public law and international human rights law.

As it can be observed, the States reserve to themselves the possibility of legislating in this matter not only limiting the principle of previous, free and informed consent and of confidentiality but also coercing individuals to undergo genetic test even if running a risk.

Postmodernism, the philosophy which, in my opinion, sustains the UNESCO Declaration, rises once again. On the one hand, human rights are expressed and praised while, on the other one, they are restricted to the extent that genetic tests are allowed under coercion and even if risks are posed. I agree with Carlos A Ghersi's opinion in this regard: "*.....post-modernity will be the contradiction between the extolment of human beings and the legislative and doctrinary retrocession which denigrates them.*"

Ratifying the UNESCO Declaration, on December 10, 1998 the United Nations General Meeting unanimously approved the Universal Declaration on the Genome Project. This document was submitted at the initiative of France, seconded by 86 countries.

b) OVIEDO CONVENTION: With the support of the Council of Europe, the Convention on Human Rights and Biomedicine or Oviedo Convention was drafted on April 4, 1997. Section 11 of this Convention prohibits any form of discrimination on account of an individual's genetic background and section 12 expressly prohibits the performance of predictive tests for reasons other than medical research, even with previous consent of the person involved. Pursuant to Section 12: "*Tests which are predictive of genetic diseases or which serve either to identify the subject as a carrier of a gene responsible for a disease or to detect a genetic predisposition or susceptibility to a disease may be performed only for health purposes or for scientific research linked to health purposes, and subject to appropriate genetic counselling*".

c) UNIVERSAL DECLARATION ON BIOETHICS AND HUMAN RIGHTS:

This Declaration was approved, by acclamation, at the 33rd Session of the UNESCO General Meeting on October 19, 2005. Its text is included as follows:

GENERAL PROVISIONS

Article 1 – Scope

GHERSI, Carlos A. Ob.citada.

"An increasing number of countries has subscribed and ratified the Oviedo Convention (www.conventions.coc.int/treaty/EN/cadreprincipal.htm).

1. This Declaration addresses ethical issues related to medicine, life sciences and associated technologies as applied to human beings, taking into account their social, legal and environmental dimensions.

2. This Declaration is addressed to States. As appropriate and relevant, it also provides guidance to decisions or practices of individuals, groups, communities, institutions and corporations, public and private.

Article 2 – Aims

The aims of this Declaration are:

(a) to provide a universal framework of principles and procedures to guide States in the formulation of their legislation, policies or other instruments in the field of bioethics;

(b) to guide the actions of individuals, groups, communities, institutions and corporations, public and private;

(c) to promote respect for human dignity and protect human rights, by ensuring respect for the life of human beings, and fundamental freedoms, consistent with international human rights law;

(d) to recognize the importance of freedom of scientific research and the benefits derived from scientific and technological developments, while stressing the need for such research and developments to occur within the framework of ethical principles set out in this Declaration and to respect human dignity, human rights and fundamental freedoms;

(e) to foster multidisciplinary and pluralistic dialogue about bioethical issues between all stakeholders and within society as a whole;

(f) to promote equitable access to medical, scientific and technological developments as well as the greatest possible flow and the rapid sharing of knowledge concerning those developments and the sharing of benefits, with particular attention to the needs of developing countries;

(g) to safeguard and promote the interests of the present and future generations;

(h) to underline the importance of biodiversity and its conservation as a common concern of humankind.

PRINCIPLES

Within the scope of this Declaration, in decisions or practices taken or carried out by those to whom it is addressed, the following principles are to be respected.

Article 3 – Human dignity and human rights

1. Human dignity, human rights and fundamental freedoms are to be fully respected.

2. The interests and welfare of the individual should have priority over the sole interest of science or society.

Article 4 – Benefit and harm

In applying and advancing scientific knowledge, medical practice and associated technologies, direct and indirect benefits to patients, research participants and other affected individuals should be maximized and any possible harm to such individuals should be minimized.

Article 5 – Autonomy and individual responsibility

The autonomy of persons to make decisions, while taking responsibility for those decisions and respecting the autonomy of others, is to be respected. For persons who are not capable of exercising autonomy, special measures are to be taken to protect their rights and interests.

Article 6 – Consent

1. Any preventive, diagnostic and therapeutic medical intervention is only to be carried out with the prior, free and informed consent of the person concerned, based on adequate information. The consent should, where appropriate, be express and may be withdrawn by the person concerned at any time and for any reason without disadvantage or prejudice.
2. Scientific research should only be carried out with the prior, free, express and informed consent of the person concerned. The information should be adequate, provided in a comprehensible form and should include modalities for withdrawal of consent. Consent may be withdrawn by the person concerned at any time and for any reason without any disadvantage or prejudice. Exceptions to this principle should be made only in accordance with ethical and legal standards adopted by States, consistent with the principles and provisions set out in this Declaration, in particular in Article 27, and international human rights law.
3. In appropriate cases of research carried out on a group of persons or a community, additional agreement of the legal representatives of the group or community concerned may be sought. In no case should a collective community agreement or the consent of a community leader or other authority substitute for an individual’s informed consent.

Article 7 – Persons without the capacity to consent

In accordance with domestic law, special protection is to be given to persons who do not have the capacity to consent:

(a) authorization for research and medical practice should be obtained in accordance with the best interest of the person concerned and in accordance with domestic law.

However, the person concerned should be involved to the greatest extent possible in the decision-making process of consent, as well as that of withdrawing consent;

(b) research should only be carried out for his or her direct health benefit, subject to the authorization and the protective conditions prescribed by law, and if there is no research alternative of comparable effectiveness with research participants able to consent.

Research which does not have potential direct health benefit should only be undertaken by way of exception, with the utmost restraint, exposing the person only to a minimal risk and minimal burden and if the research is expected to contribute to the health benefit of other persons in the same category, subject to the conditions prescribed by law and compatible with the protection of the individual’s human rights. Refusal of such persons to take part in research should be respected.

Article 8 – Respect for human vulnerability and personal integrity

In applying and advancing scientific knowledge, medical practice and associated technologies, human vulnerability should be taken into account. Individuals and groups of special vulnerability should be protected and the personal integrity of such individuals respected.

Article 9 – Privacy and confidentiality

The privacy of the persons concerned and the confidentiality of their personal information should be respected. To the greatest extent possible, such information should not be used or disclosed for purposes other than those for which it was collected or consented to, consistent with international law, in particular international human rights law.

Article 10 – Equality, justice and equity

The fundamental equality of all human beings in dignity and rights is to be respected so that they are treated justly and equitably.

Article 11 – Non-discrimination and non-stigmatization

No individual or group should be discriminated against or stigmatized on any grounds, in violation of human dignity, human rights and fundamental freedoms.

Article 12 – Respect for cultural diversity and pluralism

The importance of cultural diversity and pluralism should be given due regard. However, such considerations are not to be invoked to infringe upon human dignity, human rights and fundamental freedoms, nor upon the principles set out in this Declaration, nor to limit their scope.

Article 13 – Solidarity and cooperation

Solidarity among human beings and international cooperation towards that end are to be encouraged.

Article 14 – Social responsibility and health

1. The promotion of health and social development for their people is a central purpose of governments that all sectors of society share.

2. Taking into account that the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition, progress in science and technology should advance:

(a) access to quality health care and essential medicines, especially for the health of women and children, because health is essential to life itself and must be considered to be a social and human good;

(b) access to adequate nutrition and water;

(c) improvement of living conditions and the environment;

(d) elimination of the marginalization and the exclusion of persons on the basis of any grounds;

(e) reduction of poverty and illiteracy.

Article 15 – Sharing of benefits

1. Benefits resulting from any scientific research and its applications should be shared with society as a whole and within the international community, in particular with developing countries.

In giving effect to this principle, benefits may take any of the following forms:

(a) special and sustainable assistance to, and acknowledgement of, the persons and groups that have taken part in the research;

(b) access to quality health care;

(c) provision of new diagnostic and therapeutic modalities or products stemming from research;
(d) support for health services;
(e) access to scientific and technological knowledge;
(f) capacity-building facilities for research purposes;
(g) other forms of benefit consistent with the principles set out in this Declaration.

2. Benefits should not constitute improper inducements to participate in research.

Article 16 – Protecting future generations

The impact of life sciences on future generations, including on their genetic constitution, should be given due regard.

Article 17 – Protection of the environment, the biosphere and biodiversity

Due regard is to be given to the interconnection between human beings and other forms of life, to the importance of appropriate access and utilization of biological and genetic resources, to respect for traditional knowledge and to the role of human beings in the protection of the environment, the biosphere and biodiversity.

APPLICATION OF THE PRINCIPLES

Article 18 – Decision-making and addressing bioethical issues

1. Professionalism, honesty, integrity and transparency in decision-making should be promoted, in particular declarations of all conflicts of interest and appropriate sharing of knowledge. Every endeavour should be made to use the best available scientific knowledge and methodology in addressing and periodically reviewing bioethical issues.
2. Persons and professionals concerned and society as a whole should be engaged in dialogue on a regular basis.
3. Opportunities for informed pluralistic public debate, seeking the expression of all relevant opinions, should be promoted.

Article 19 – Ethics committees

Independent, multidisciplinary and pluralist ethics committees should be established, promoted and supported at the appropriate level in order to:
(a) assess the relevant ethical, legal, scientific and social issues related to research projects involving human beings;
(b) provide advice on ethical problems in clinical settings;
(c) assess scientific and technological developments, formulate recommendations and contribute to the preparation of guidelines on issues within the scope of this Declaration;
(d) foster debate, education and public awareness of, and engagement in, bioethics.

Article 20 – Risk assessment and management

Appropriate assessment and adequate management of risk related to medicine, life sciences and associated technologies should be promoted.

Article 21 – Transnational practices

1. States, public and private institutions, and professionals associated with transnational activities should endeavour to ensure that any activity within the scope of this Declaration, undertaken, funded or otherwise pursued in whole or in part in different States, is consistent with the principles set out in this Declaration.

2. When research is undertaken or otherwise pursued in one or more States (the host State(s)) and funded by a source in another State, such research should be the object of an appropriate level of ethical review in the host State(s) and the State in which the funder is located. This review should be based on ethical and legal standards that are consistent with the principles set out in this Declaration.

3. Transnational health research should be responsive to the needs of host countries, and the importance of research contributing to the alleviation of urgent global health problems should be recognized.

4. When negotiating a research agreement, terms for collaboration and agreement on the benefits of research should be established with equal participation by the parties to the negotiation.

5. States should take appropriate measures, both at the national and international levels, to combat bioterrorism and illicit traffic in organs, tissues, samples, genetic resources and genetic related materials.

Promotion of the Declaration

Article 22 – Role of States

1. States should take all appropriate measures, whether of a legislative, administrative or other character, to give effect to the principles set out in this Declaration in accordance with international human rights law. Such measures should be supported by action in the spheres of education, training and public information.

2. States should encourage the establishment of independent, multidisciplinary and pluralist ethics committees, as set out in Article 19.

Article 23 – Bioethics education, training and information

1. In order to promote the principles set out in this Declaration and to achieve a better understanding of the ethical implications of scientific and technological developments, in particular for young people, States should endeavour to foster bioethics education and training at all levels as well as to encourage information and knowledge dissemination programmes about bioethics.

2. States should encourage the participation of international and regional intergovernmental organizations and international, regional and national non-governmental organizations in this endeavour.

Article 24 – International cooperation

1. States should foster international dissemination of scientific information and encourage the free flow and sharing of scientific and technological knowledge.

2. Within the framework of international cooperation, States should promote cultural and scientific cooperation and enter into bilateral and multilateral agreements enabling developing countries to build up their capacity to participate in generating and sharing scientific knowledge, the related know-how and the benefits thereof.

3. States should respect and promote solidarity between and among States, as well as individuals, families, groups and communities, with special regard for those rendered vulnerable by disease or disability or other personal, societal or environmental conditions and those with the most limited resources.

Article 25 – Follow-up action by UNESCO

1. UNESCO shall promote and disseminate the principles set out in this Declaration. In doing so, UNESCO should seek the help and assistance of the Intergovernmental Bioethics Committee (IGBC) and the International Bioethics Committee (IBC).

2. UNESCO shall reaffirm its commitment to dealing with bioethics and to promoting collaboration between IGBC and IBC.

Final provisions

Article 26 – Interrelation and complementarity of the principles

This Declaration is to be understood as a whole and the principles are to be understood as complementary and interrelated. Each principle is to be considered in the context of the other principles, as appropriate and relevant in the circumstances.

Article 27 – Limitations on the application of the principles

If the application of the principles of this Declaration is to be limited, it should be by law, including laws in the interests of public safety, for the investigation, detection and prosecution of criminal offences, for the protection of public health or for the protection of the rights and freedoms of others. Any such law needs to be consistent with international human rights law.

Article 28 – Denial of acts contrary to human rights, fundamental freedoms and human dignity

Nothing in this Declaration may be interpreted as implying for any State, group or person any claim to engage in any activity or to perform any act contrary to human rights, fundamental freedoms and human dignity.

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This Declaration, in our opinion, would repair the gaps left by the 1997 version, which we criticize above, since it forbids the performance of genetic exams by coercion and prevents countries from restricting the rights declared by it.

Finally, we must state that the Human Genome Project is a remarkable scientific breakthrough for humankind which should not be used to discriminate since this would entail a major impairment to individual rights. Should this occur, the human race would have fallen several stages in its struggle for equality.

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