



SCIENCE AND ETHICS

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If presently science is not a dangerous activity for the scientist (remember Galileo Galilei!), rapid, new and important discoveries continue to have crucial consequences for society. How do scientists influence the future and human behavior? Everyone is concerned about the consequences of the correct or incorrect use of living matter. As an example, the discovery of the structure of DNA by Watson and Crick paved the way for the emergence of genomics, which combines a theoretical background and powerful techniques allowing the modification of nature. At the moment, we are facing the triumph of molecular biology, techniques that allow description of the mechanical operations that have occurred during the history of nature. In addition, molecular biology can offer the possibility of transforming natural states through technology. As a whole, this scientific revolution generates a new system of values and creates conditions for a new ethical approach. Genomics appears to be a paradigm, a new cultural phenomenon within which human beings have a specific role due to their ability to think, to anticipate. How shall we participate in the reading of the "book" of genomics? How shall we use that knowledge to determine the consequences for human life? In the plant domain, what type of agriculture should we generate and how are individuals concerned? In the managing of genomics we are also faced with economic competition, which is combined with ideology and serves as a basis for scientific

effort. In the context of liberalism, genetic engineering could be a terrible tool in the battle for gene discovery and gene use. How can we establish a balance between efficiency, freedom and responsibility towards society? All this highlights the responsibility of genomic scientists in the modification of nature, and in particular calls for the generation of new values. It emerges that an ethical debate is needed. Science is not neutral. It is becoming increasingly necessary for scientists to devote more attention to ethical problems concerning their research and the resulting new technologies. How can we stimulate scientists to be more sensitive to the consequences of their work? This has to start from the very bottom in our laboratories. I know that it is difficult; time is precious and increasingly we have administrative work in addition to research, teaching and other responsibilities. But who are we? We are said to be *Homo sapiens*, even in some classifications *Homo sapiens sapiens*. A first step towards progress should be, and it is my final message, to include in SPR congresses a presentation by a philosopher, a specialist in the sciences, or to find a scientist who possesses the gene of philosophy! It exists.

As a conclusion: our world is marked by Science, which modifies our ideas on life and also our values and our behavior. There is a current challenge to develop special efforts to contribute to the general evolution of our society, and to be able to influence positively the future of human beings.