



10 November 2003



**Address to the Plenary Session on  
'The 400th Anniversary of the Foundation of the Pontifical Academy of Sciences'**

Dear Members of the Pontifical Academy of Sciences,

I am especially pleased to greet you today as we celebrate the Four Hundredth Anniversary of the Pontifical Academy of Sciences. I thank the President of the Academy, Professor Nicola Cabibbo, for the kind sentiments expressed on your behalf and I acknowledge with gratitude the thoughtful gesture with which you have wished to commemorate the Silver Jubilee of my Pontificate.

The *Accademia dei Lincei* was founded in Rome in 1603 by Federico Cesi with the encouragement of Pope Clement VIII. In 1847 it was restored by Pius IX and in 1936 re-established by Pius XI. Its history is linked to that of many other Scientific Academies throughout the world. I am happy to welcome the Presidents and representatives of these institutions who have so kindly joined us today, especially the President of the *Accademia dei Lincei*.

I recall with gratitude the many meetings we have had over the past twenty-five years. They have been opportunities for me to express my great esteem for those who work in the various scientific fields. I have carefully listened to you, shared your concerns, and considered your suggestions. In encouraging your work I have emphasized the spiritual dimension always present in the search for truth. I have also affirmed that scientific research must be directed towards the common good of society and the integral development of its individual members.

Our gatherings have also enabled me to clarify important aspects of the Church's doctrine and life relating to scientific research. We are united in our common desire to correct misunderstandings and even more to allow ourselves to be enlightened by the one Truth which governs the world and guides the lives of all men and women. I am more and more convinced that scientific truth, which is itself a participation in divine Truth, can help philosophy and theology to understand ever more fully the human person and God's Revelation about man, a Revelation that is completed and perfected in Jesus Christ. For this important mutual enrichment in the search for the truth and the benefit of mankind, I am, with the whole Church, profoundly grateful.

The two topics which you have chosen for your meeting concern the life sciences, and in particular the very nature of human life. The first, *Mind, Brain and Education*, draws our attention to the complexity of human life and its pre-eminence over other forms of life. Neuroscience and neurophysiology, through the study of chemical and biological processes in the brain, contribute greatly to an understanding of its workings. But the study of the human mind involves more than the observable data proper to the neurological sciences. Knowledge of the human person is not derived from the level of observation and scientific analysis alone but also from the interconnection between empirical study and reflective understanding.

Scientists themselves perceive in the study of the human mind the mystery of a spiritual dimension which transcends cerebral physiology and appears to direct all our activities as free and autonomous beings, capable of responsibility and love, and marked with dignity. This is seen by the fact that you have decided to expand your research to include aspects of learning and education, which are specifically human activities. Thus your considerations focus not just on the biological life common to all living creatures but also include the interpretive and evaluative work of the human mind.

Scientists today often recognize the need to maintain a distinction between the mind and the brain, or between the person acting with free will and the biological factors which sustain his intellect and capacity to learn. In this distinction, which need not be a separation, we can see the foundation of that spiritual dimension proper to the human person which biblical Revelation explains as a special relationship with God the Creator (cf. *Gen 2:7*) in whose image and likeness every man and woman is made (cf. *Gen 1:26-27*).

The second topic of your meeting concerns *Stem Cell Technology and Other Innovative Therapies*. Research in this field has understandably grown in importance in recent years because of the hope it offers for the cure of ills affecting many people. I have on other occasions stated that stem cells for purposes of experimentation or treatment cannot come from human embryo tissue. I have instead encouraged research on adult human tissue or tissue superfluous to normal fetal development. Any treatment which claims to save human lives, yet is based upon the destruction of human life in its embryonic state, is logically and morally contradictory, as is any production of human embryos for the direct or indirect purpose of experimentation or eventual destruction.

Distinguished friends, reiterating my thanks for your valued assistance I invoke upon you and your families God's abundant blessing. May your scientific work bear abundant fruit and may the activities of Pontifical Academy of Sciences continue to promote knowledge of the truth and contribute to the development of all peoples.