



# Yves Cotrel found for the research

*“ I dedicate this Foundation to all the patients I tried to treat in the past. May it serve the new patients for a better future. May it bring a real support to my young colleagues, orthopedic surgeons from all over the world ”*

*Yves Cotrel*

**U**NDER the aegis of the Institut de France, which continuously encourages the scientific research and creative initiatives, a new private foundation was created in January 1999. The Foundation aims to coordinate, sustain

and promote - at both national and international levels - health research, more particularly in spinal diseases. The president of the administrative Board of the Foundation is Mr Pierre Messmer, former Prime Minister and Chancellor of the Institut de France.

Dr Yves Cotrel, the founder of this Foundation, decided to put his know-how and his long experience at the service of the new generation of researchers in order to help them bring to success their own initiatives in the particular research field of spinal pathologies.

His professional carrier was full of unexpected experiences - while he was preparing himself to become an obstetrician, he found himself detached to Berck, in the northern part of France, as an orthopedic surgeon. He spent there thirty years among young patients suffering from spinal deformities very difficult to correct at that time. Their suffering, their fear and hope made him orient all his efforts towards the understanding of phenomena related to spinal deformities and to their possible treatment as well.

Up to 1975, he continuously developed orthopedic and surgical techniques,



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Pr. François GROS, Mr Pierre MESSMER, Dr. Yves COTREL & Pr. Yves LAPORTE at the official presentation of the Yves Cotrel Foundation

# evaluation in spinal pathologies

which were very quickly evaluated as they were implemented on a great number of patients. With these techniques, national and international recognition were acquired.

In 1975, he was the Harrington Guest Lecturer to the Scoliosis Research Society (S.R.S.) congress in Ottawa, where he introduced his "New correction and fusion techniques for idiopathic scoliosis".

His enthusiasm was somehow challenged at the age of 50, when severe health problems obliged him to stop any professional activity.

But for this passionate and visionary man, this was only the beginning of another adventure. He launched himself in thorough researches of an optimal spinal instrumentation for scoliosis correction. Together with Dr Jean Dubousset he developed the first spinal implant that could allow a three dimensional correction of spinal deformities, while enabling an early post-surgical standing position for the patient, with no external retention with cast or brace.

In 1985, for the second time, he was the Harrington Guest Lecturer of the S.R.S congress, in Amsterdam, where he presented "40 years of treatment of idiopathic scoliosis".

He was the co-founder, head of the Clinical research department (1969-1977) and, since 1989, President of the Board of the "Institut de Recherche sur les Maladies du Squelette" (Skeleton Disease Research Institute), founder of the "Chaire Universitaire Marie-Lou et Yves Cotrel de Recherche en Chirurgie Orthopédique de l'Université" in Montreal, Canada (1995), author of

several scientific books and publications, conferences and presentations all over the world, honorary member of several orthopedic and traumatology foreign Societies.

In 1989, together with Pr Jean Dubousset, Yves Cotrel received the World Award of orthopedic Surgery from Geneva University, and in 1999, the Gold Medal of the Institut de France for his contribution to medical research.

During the last 15 years, his researches and his new concepts on scoliosis correction opened the way to a rapid technological development that resulted in modern spinal instrumentations, well adapted to the three dimensional aspect of the deformed spine.

*"But at the beginning of the third Millennium, there is still a lot of work to be done on this topic "* says Dr Cotrel.

## Apply for a grant :

The research programs which will be supported by the Foundation for 2001-2004 will be announced in October 2001.

The next deadline for receiving research programs (2002-2005) will be March 31st, 2002. Please make sure to indicate the following on your submission document :

- 1 Name of the team leader
- 2 Subject and description of the project
- 3 Duration of the study
- 4 Planned budget

All files must be sent to the Yves Cotrel Foundation Secretary Office. Detailed forms will be sent to the candidates whose projects will have been pre-selected by the Scientific Board of the Foundation.

## For further information :

Please visit : <http://www.fondationcotrel.org>

Or contact the Yves Cotrel Foundation Secretary Office:

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Therefore he decided that he will now bring all his support - scientific and material, through this new Foundation, to fundamental and applied research in spinal pathologies.

Due to a lack of reliable prognosis criteria, the scoliosis follow-up and correction is still based on empiric observation and on symptomatic treatment. This empirical method of choice of a therapeutic strategy might bring prejudice to the final result, by longer or even abusive treatment in certain cases.

The orthopedic treatment of scoliosis applied to progressive cases consists in corrective braces prescribed to young patients during the growing period.

As for the surgical correction of scoliosis, usually needed in case of severe deformation of the spine, it consists in generating a fusion of deviated vertebrae in order to insure their stabilization, which yields a loss of mobility, one of the main functions of the spine. In other words, the surgeon

has to choose "the best compromise". "We cannot be satisfied with this situation" says Dr Cotrel. So, rather than distribute financial support in many directions, it seems more efficient to choose a specific theme to follow over 3 years periods and also bring together the most promising research programs following the same theme but coming from different disciplines, in order to create a multidisciplinary synergy on this topic.

Following the advice of its Scientific Committee, the Yves Cotrel Foundation decided to support a global research program for the period 2000 - 2001 focusing on the etiopathology of idiopathic scoliosis in order to enable a better understanding of the origin and evolution mechanisms of this pathology. During the three first years of the third millennium, the Yves Cotrel Foundation has decided to select and support the most promising international research programs in Biomechanics, Genetics, Endocrinology, Neurology and Metabolism, researching the origins of idiopathic scoliosis in order to have early detection, and, furthermore, to prevent its development.

\* An American project: *Genetic linkage analysis and fine mapping of familial idiopathic scoliosis*, proposed by Dr Nancy Miller, M.D., Assistant Professor - Johns Hopkins Hospital, School of Medicine, Baltimore, Maryland, USA.

\* A French-Canadian project: *Biomechanical factors in idiopathic scoliosis*, proposed by Pr François Lavaste and Wafa Skalli - Laboratoire de Biomécanique - Ecole Nationale des Arts et Métiers, Paris, Toulouse, FRANCE, Montréal, CANADA.

\* A Japanese project: *Role of melatonin in idiopathic scoliosis*, proposed by Pr Masafumi Machida, Nihon University School of Medicine, Tokyo, Japan.

\* An English project: *Changes in the*

*endplate region in idiopathic scoliosis*, proposed by Dr Jeremy Fairbanks, M.D. and Jill Urban, M.D., Nuffield Orthopaedic Centre, Oxford - United Kingdom.

The work of these four teams during the three years of the research program will be presented twice a year to the scientific committee of the foundation.

On behalf of the Yves Cotrel Foundation, we would like to invite our readers to submit their proposals for spinal pathology related research projects as well as to bring their contribution to the development of the research in this field by any suitable means. ■

Anca Mitulescu

## How can you support the foundation?

\* *By making sure that people know of its existence.*

\* *By making a donation  
Wherever the donations to the Foundation come from, there is only one policy: the funds are dedicated to research programs only. There is absolutely NO administrative fee withheld from them.*