

The MHE Research Foundation's
REACH *Research Award*



Is presented to
Dominique Stickens, Ph.D.,
Senior Research Biologist,
Merck Research Laboratories, NJ

This Award has been created to show our Foundation's appreciation to scientist whose past research has had LONG TERM REACHING affects on the study of Multiple Hereditary Exostoses.

We hope that this award will inspire researchers around the world to REACH for the CURE and understand the accomplishments of researchers like Dr. Dominique Stickens and future award winners.

Research discoveries are not accomplished over night they take years. Moreover it is these discoveries when put together with others that will one day lead to the discovery of a treatment for Multiple Hereditary Exostoses.

The MHE Research Foundation salutes the recipient of the **REACH Research Award**.

Dr. Stickens has demonstrated his commitment to The MHE Research Foundation time and again and to the research community at large. A noted scientist doing extensive research on MHE, Dr. Stickens has shared his expertise and knowledge whenever asked, and has volunteered to take on the huge task of co-organizing the third International MHE Conference to be held July 2009.

Dr. Stickens was born and raised in Belgium, in a small village near the city of Antwerp. With the exception of his mother (a French teacher), his family consists of many scientists. His grandfather was a medical doctor, his father an engineer and his older brother would eventually become a physicist. The most valuable lesson he received from his parents however was not how to become a scientist, it was a lesson in self-reliance and they let him make his own decisions about his education and career.

In high school he became more and more interested in biology, which soon became the class he most enjoyed. After graduating from high school in 1988 he enrolled at the University of Antwerp in Belgium, studying biology. He completed all the required courses in zoology, botany, chemistry, mathematics, and physics, but he was particularly intrigued by the emerging fields of genetics and biotechnology. It was during his senior year that this interest turned into a true passion, when he joined the lab of Prof. Merregaert to complete his thesis work. During that time he studied how faulty genes contribute to cancer, work that led to his first scientific publication in an international journal. He graduated Magna Cum Laude from University and decided he wanted to pursue this new found passion. His home country however did not provide the opportunities he had hope for and in 1994 he left Belgium to start a PhD program at UT Southwestern Medical Center in Dallas, Texas. It was there that he met Dr. Glen Evans, a prominent scientist in the field of human genetic diseases, who asked him to join his laboratory to work on a disease called hereditary multiple exostoses, a disease Dr. Stickens had never heard of before. What started of as a small project on some unknown disease soon turned into a passionate quest to find out what caused this disease and how that knowledge could help people suffering from this condition. He spend the next ten years, first as a graduate student and later as a postdoctoral fellow at the University of California San Francisco, putting together the genetic pieces of HME puzzle.

Dr. Stickens identified the EXT2 gene, and in so doing, has helped define a new family of putative tumor suppressor genes. Moreover, he went on to characterize that gene for its normal role in development and pursued the question of how a loss of function for this gene product participates in deregulated bone development. Dr. Stickens was able to create a EXT2 knock-out mouse that formed exostoses and thus recreated the human phenotype. The genetically engineered mouse he created has proved to be a very valuable model that provided profound insights into both disease mechanism and basic biological processes. These EXT2 knock-out mice are used by many scientists as a tool for further understanding the underlying causes of MHE. His work and contributions to the understanding of MHE have been presented at several national and international meetings and have led to multiple publications in high-ranking scientific journals.

In April 2005, Merck & Co recruited him as a Senior Research Biologist but he continues to serve as a member of the scientific advisory board of the MHE research foundation and remains dedicated to the field of MHE research.