Distinguished Visitor Programme

Prof Michael Longaker
Deane P. and Louise Mitchell Professor
Director, Children's Surgical Research Program
Stanford University School of Medicine

Biography

Dr. Michael T. Longaker joined the Stanford University School of Medicine on September 1, 2000 as Director of Children's Surgical Research in the Department of Surgery, Division of Plastic and Reconstructive Surgery and the Lucile Salter Packard Children's Hospital. In 2003, he was named the Deane P. and Louise Mitchell Professor. As Director of Children's Surgical Research, Dr. Longaker has the responsibility to develop a children's surgical research program in the broad areas of developmental biology, epithelial biology and tissue repair, and tissue engineering. Prior to joining Stanford, Mike was the John Marquis Converse Professor of Plastic Surgery and held the positions of Director of Surgical Basic Science and Director of Plastic Surgery Research at the Institute of Reconstructive Plastic Surgery at the New York University School of Medicine.

Mike Longaker's extensive research experience includes the cellular and molecular biology of extracellular matrix with specific applications to the differences between fetal and post-natal wound healing, the biology of keloids and hypertrophic scars and, most recently, the cellular and molecular events that surround distraction osteogenesis with respect to craniofacial development. He brings to Stanford his unique understanding of wound healing, fetal wound healing research, developmental biology and tissue engineering.

Dr. Longaker is the recipient of the American Society of Maxillofacial Surgeons and the Maxillofacial Foundation's 1999 Dr. Bernd Spiessl Award. In 2000, Mike received the D. Ralph Millard, M.D. Investigator Award as co-author, PSEF Scholarship Contest and is a James IV Traveling Fellow.

Mike earned his undergraduate degree at Michigan State University and his medical degree at Harvard Medical School. He completed his surgical residency at the University of California, San Francisco, a residency in Plastic Surgery at NYU and a craniofacial fellowship at UCLA. The majority of his research training took place while he was a PostDoctoral Research Fellow in the Fetal Treatment Program under Dr. Mike Harrison and in the laboratory of Dr. Michael Banda in Radiobiology, both at UCSF. In December 2003, Dr. Longaker earned his M.B.A. from University of California - Berkeley and Columbia University, in the inaugural class of their combined program.
Lecture Abstract

10 Nov 2004, 30 Biopolis Way, Matrix Building, Theatrette 1, Level 2M, Singapore 138671, 6.15 pm - 7.15 pm

“Regenerative Medicine: Is there a Role for Fat?”

Healthcare is the only trillion dollar industry in the United States economy and it is struggling with spiraling costs. What is needed is a strategically distinctive approach that harnesses one’s own multipotent (stem-like) cells to repair, regenerate and replace injured, dysfunctional or deficient tissues/organisms. I will present lessons learned from developmental biology and data on the ability of fat-derived multipotent cells to differentiate into several different lineages and tissue types. Finally, I will review data of how fat-derived cells can be “coached” to replace bone in skeletal defects in mice.