

The University of Texas Southwestern Medical Center



The Hamon Center for Regenerative Science and Medicine

Seeking advances in repairing and replacing damaged tissues



Dr. Eric Olson His work has produced new insights into heart development and regeneration.

It's a new frontier in science: researchers are exploring how to reverse the damaging effects of age and injury on the heart, brain, and other tissues.

The Hamon Center for Regenerative Science and Medicine at The University of Texas Southwestern Medical Center is at the forefront of research designed to enhance understanding

about how tissue ages, as well as about how it repairs and renews itself. This knowledge can then be used to improve human health.

Launched in December 2014, the new Center promotes discoveries that will provide new approaches to healing and regeneration, including advances in stem cell biology, tissue engineering, and organ fabrication.

Made possible by a \$10 million endowment gift from the Hamon Charitable Foundation, the Hamon Center also fosters collaborative interactions among existing faculty and recruits junior and senior faculty; it supports new core facilities, expanded biobank activities, and the development of new training and educational activities related to regenerative science and medicine.

Dr. Eric Olson, Chairman of UT Southwestern's Department of Molecular Biology, is the director of the center. His work has produced new insights into heart development and regeneration.

Dr. Olson has illuminated a detailed genetic model for heart development, for example. The model provides a framework for how the genes function in normal and abnormal heart development. These advances provide a basis for developing new approaches to treating and preventing cardiac defects in infants and cardiac repair in adults, including therapeutics already in development.

"We all know what degeneration is. That's what happens with age. Regeneration is the opposite. It centers on how to rejuvenate aged and diseased tissues," said Dr. Olson. "The goal of this Center is to understand the basic mechanisms for tissue and organ formation, and then to use that knowledge to regenerate, repair, and replace tissues damaged by aging and injury."

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Dr. Olson's work has been widely recognized by numerous awards and honors, including his election to the National Academy of Sciences, the Institute of Medicine, and the American Academy of Arts and Sciences. More recently, he received the Passano Award in 2012, the Research Achievement Award from the International Society for Heart Research in 2013, and also in 2013, the March of Dimes Prize in Developmental Biology.

Dr. Olson has been a member of the UT Southwestern community since he was recruited in 1995 to be the founding Chair of the Department of Molecular Biology. He holds the Annie and Willie Nelson Professorship in Stem Cell Research, the Pogue Distinguished Chair in Research on Cardiac Birth Defects, and the Robert A. Welch Distinguished Chair in Science.

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Living Life Generously

San Antonio-born Nancy Hamon created The Hamon Foundation in memory of her husband, Jake, a prominent Texas oil and gas executive who died in 1985.

UT Southwestern has long benefitted from the Foundation's steadfast support. Gifts to the medical center include a \$25 million donation to the Fund for Molecular Research, which established the Nancy B. and Jake L. Hamon Center for Therapeutic Oncology Research; a million dollars was bequeathed to the William P. Clements Jr. University Hospital; and the Nancy B. and Jake L. Hamon Biomedical Research Building on the North Campus is also named for the couple. Nancy Hamon died in 2011.

