Medical Xpress

New professorship in tissue engineering links molecular engineering, marine biology

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The starlet sea anemone (*Nematostella*) is an emerging model organism for the study of regeneration. Credit: Adam Reitzel, courtesy of John R. Finnerty

The University of Chicago is creating a new professorship in tissue engineering to promote innovative work at the University's Institute for Molecular Engineering and the Marine Biological Laboratory, supported by a $3.5 million donation from the Millicent and Eugene Bell Foundation.

The Eugene Bell Professorship in Tissue Engineering will reside within the Institute for Molecular Engineering. That endowed chair holder also will direct a research project at the MBL's Eugene Bell Center for Regenerative Biology and Tissue Engineering, and will have an appointment at the Bell Center. The MBL and UChicago formed an affiliation in 2013 to advance biological research and education at both institutions.

Tissue engineering and regenerative biology have the potential to produce breakthroughs in healing damaged body parts or even growing new organs. They are inherently multidisciplinary fields, drawing from new technology in materials science and fabrication as well as basic research in fields such as genetics and cell biology.

"The emerging collaborations between scientists at the University and the MBL are well suited to address the scientific challenges of tissue engineering," said President Robert J. Zimmer. "Many innovations in medical treatments depend on robust links of basic research and new technology. We are grateful for the generous support of the Millicent and Eugene Bell Foundation, which will allow our scholars to do pioneering work in the rapidly changing field of tissue engineering."

The new professorship will foster scholarship on tissue engineering at the MBL and the Institute for Molecular Engineering, where scientists are focused on exploring innovative technology at the molecular scale, with the potential for societal impact in areas including health care, computing, energy and the environment.

"We have a very unusual chance with our colleagues at the MBL to bring together different scientific perspectives and specialties in search of breakthrough discoveries that could have profound impacts for patients," said Matt Tirrell, the founding Pritzker Director of the Institute for Molecular Engineering.

For more than a century, scientists at the MBL in Woods Hole, Mass. have studied how certain marine species are able to regenerate damaged tissue. The MBL's Bell Center includes a national resource for research on the frog called Xenopus, which has unique regenerative abilities and is a major animal model for biomedical research.

"This extraordinary gift from the Millicent and Eugene Bell Foundation continues the Bell family's generous support of the Marine Biological Laboratory by providing a transformative research opportunity in our affiliation with the University of Chicago," said MBL President and Director Joan Ruderman.

Millicent Bell, a trustee of the Marine Biological Laboratory since 2009, made the gift through the Bell Foundation in memory of her late husband, Dr. Eugene Bell, a longtime member of the MBL scientific community. While a professor at MIT from 1956 to 1986, Eugene Bell founded the field of tissue engineering through efforts to generate replacement tissue for treating severe burns and other injuries. After retiring from MIT, Eugene Bell founded two companies: Organogenesis Inc., to produce replacement skin, and TEI Biosciences, which used expertise in regenerative medicine to develop new biologic products for various soft tissue repair applications.

"Gene would have been delighted to see how beautifully his hopes for a grand future for tissue engineering are going forward, and I am overjoyed to be able to continue to help in the effort," Millicent Bell said. "I am looking forward to the prospect of advanced research and of its medical application that will result—and am extremely pleased to see Gene's humane dreams realized."

Provided by University of Chicago

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