

Phillip Beachy to present upcoming distinguished lecture

By Raj Gosavi

Philip Beachy, Ph.D., a leader in the fields of adult stem cell biology and regenerative medicine, will present the next NIEHS Distinguished Lecture Series seminar Sept. 26. [Traci Hall, Ph.D.](#), acting head of the NIEHS Structural Biology Laboratory, will host his talk, "Hedgehog Signaling in Organ Homeostasis and Malignancy."

[Beachy,](#)

(<https://med.stanford.edu/profiles/philip-beachy>)

a Howard Hughes Medical Institute Investigator, is an Ernest and Amelia Gallo Professor in the Stanford University School of Medicine, and a member of the Institute of Stem Cell Biology and Regenerative Medicine, also at Stanford. His research focuses on studying the role of Hedgehog family proteins in morphogenesis, or pattern formation, and in injury repair and regeneration, or pattern maintenance.

Beachy's lab has discovered several important functions of Hedgehog proteins. His studies have furthered the understanding of prostate cancer, by showing how activation of Hedgehog can help distinguish metastatic prostate cancers from those that remain benign. In addition, recent studies have made critical insights into Hedgehog's function in Down syndrome, as well as bladder repair in adult mammals.

"Dr. Beachy's examination of the Hedgehog signaling pathway ranges from the identification of fruit fly and vertebrate hedgehog genes, to biochemical illumination of their functions in embryonic development and, recently, the revelation of mechanisms by which the Hedgehog pathway may induce or restrain cancer progression," Hall said.

Work from his group has generated over 100 peer-reviewed publications, including several featured articles. Beachy was named a member of the National Academy of Sciences in 2002, and was selected as an American Academy of Arts and Sciences fellow in 2003. In 2011, he received the Keio Medical Science Prize for his work on Hedgehog as a key molecule in development. Beachy is also one of the founders of Fate Therapeutics, a biotech startup that uses stem cells for the development of innovative therapeutics.

(Raj Gosavi, Ph.D., is a research fellow in the NIEHS Structure and Function Research Group.)



"Dr. Beachy's work on Hedgehog proteins exemplifies a basic science-to-clinical study," noted Hall. (Photo courtesy of Stanford University)

The Environmental Factor is produced monthly by the [National Institute of Environmental Health Sciences \(NIEHS\)](#)

(<http://www.niehs.nih.gov/>)

, Office of Communications and Public Liaison. The content is not copyrighted, and it can be reprinted without permission. If you use parts of Environmental Factor in your publication, we ask that you provide us with a copy for our records. We welcome your [comments and suggestions](#).

(bruskec@niehs.nih.gov)

This page URL: NIEHS website: <http://www.niehs.nih.gov/>

Email the Web Manager at webmanager@niehs.nih.gov