

The Hildale Lecture Series 2017

Division of Biological Sciences presents:

Stephen Goff, Ph.D.
Investigator, Howard Hughes
Medical Institute
Higgins Professor of Biochemistry
College of Physicians and Surgeons
Columbia University



Wednesday, May 10, 2017
10:30-11:30 AM
1345 HSLC
(Health Sciences Learning Center)
750 Highland Avenue

Transcriptional Silencing of Retroviral DNAs in Embryonic Cells

Dr. Stephen P. Goff is Higgins Professor of Biochemistry at the College of Physicians and Surgeons of Columbia University and an Investigator of the Howard Hughes Medical Institute. He received the A.B. degree in Biophysics Summa Cum Laude from Amherst College in 1973. His graduate work with Dr. Paul Berg at Stanford University focused on the genetic analysis of the replication of simian virus 40 (SV40) and on the use of SV40 as a viral vector for the expression of foreign DNAs in mammalian cells. He did postdoctoral work with Dr. David Baltimore at MIT on the replication of the murine leukemia viruses as a Jane Coffin Childs fellow, and joined the Columbia faculty in 1981.

Goff's current work is centered on the study of the retrovirus life cycle and the host restriction systems that inhibit virus replication. His lab has identified and characterized a novel host protein, termed ZAP for zinc finger antiviral protein, that blocks gene expression of many viruses, including the murine leukemia viruses, Ebola, Sindbis, and HIV-1, by degrading viral mRNAs and inhibiting their translation. The lab has also characterized a protein complex responsible for the silencing of retroviral DNAs in embryonic stem (ES) cells, and identified a zinc finger protein, ZFP809, as an ES-cell specific recognition molecule that binds the proviral DNA and brings TRIM28 to locally modify chromatin.

Goff was a Searle Scholar and has received two MERIT awards from the NIH. He served on the Molecular Biology study section of the NIH for four years, was selected as co-organizer of the Cold Spring RNA Tumor Virus meeting for 1988 and 1994, and elected co-chairman of the Animal Cells and Viruses Gordon Conference for 1989. He was elected to membership in the National Academy of Science, the Institute of Medicine, the American Academy of Arts and Sciences, and the American Academy of Microbiology, and is a fellow of the American Association for the Advancement of Science. He received an honorary Doctor of Science degree from Amherst College in 1997, and was the inaugural recipient of the Retrovirus Prize. He has mentored over 35 graduate students and 35 postdoctoral fellows in his laboratories at Columbia. He has served as a reviewing editor for the journals *Science*, *Cell*, *Journal of Virology*, and *Virology* and reviews submissions for these and many other journals. He has authored or coauthored over 300 publications on viral replication and oncogenesis.

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Free Public Lecture followed by an Informal Reception in the HSLC Atrium