

THE  
*Flexner*  
**DISCOVERY**  
LECTURE SERIES

SPONSORED BY:  
CELL AND DEVELOPMENTAL BIOLOGY  
(CDB DISTINGUISHED FACULTY SPEAKER)

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**ANDREW Z. FIRE, PH.D**

BIOLOGICAL RESPONSES TO  
FOREIGN INFORMATION

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JANUARY 24, 2013  
4:00 P.M.  
208 LIGHT HALL

THE  
*Flexner*  
**DISCOVERY**  
LECTURE SERIES

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Upcoming Discovery Lecture:  
C. RONALD KAHN, M.D.  
*Harvard University*  
*February 21, 2013*  
*208 Light Hall / 4:00 P.M.*

VANDERBILT  UNIVERSITY  
MEDICAL CENTER

## BIOLOGICAL RESPONSES TO FOREIGN INFORMATION

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Exposures of organisms to foreign information induces the elaboration of diverse populations of RNA and protein effectors: siRNAs, miRNAs, antibodies, and T cell receptors. Combined, the capabilities of these effectors provide a limited but valuable component in our ability to control infection and pathogenesis. Reciprocally, the ability of prospective hosts to generate functional effector repertoires serves to shape the space in which pathogens evolve. This talk will provide examples of the use of sequence-based analysis to define and track induced immune responses during response to model interventions and infection.

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## **ANDREW Z. FIRE**

**PROFESSOR OF PATHOLOGY AND GENETICS  
STANFORD UNIVERSITY SCHOOL OF MEDICINE  
NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE 2006**

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A native of Santa Clara County, California, Dr. Fire received training at UC Berkeley (Mathematics BA: 1975-1978), MIT (Biology Ph.D.: 1978-1983), and the Medical Research Council Laboratory in Cambridge UK (Postdoctoral: 1983-1986). From 1986 to 2003, Dr. Fire was on the staff of the Carnegie Institution of Washington's Department of Embryology in Baltimore Maryland. During his time in Baltimore, Dr. Fire assumed the position of Adjunct Professor of Biology at Johns Hopkins University. In 2003, Dr. Fire joined the faculty of the Departments of Pathology and Genetics at Stanford University School of Medicine. In 2006, Dr. Fire and Dr. Craig Mellow were awarded the Nobel Prize in Physiology or Medicine for their discovery of RNA interference - gene silencing by double-stranded RNA.

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The Cell and Developmental Biology Distinguished Faculty Lecture Series is an annual event in honor of the more than 80 years of excellence in research, teaching and service by the faculty of Vanderbilt University School of Medicine in the Cell and Developmental Biology Department.

**CELL AND DEVELOPMENTAL BIOLOGY  
PRIMARY FACULTY**

(based on faculty census 1985 forward)

James W. Ward, M.D., Professor Emeritus%	1958-1993
Jack Davies, M.D., Professor Emeritus%	1963-1991
G. Rodman Davenport, Ph.D., Associate Professor%	1963-1993
Alvin M. Burt, Ph.D., Professor Emeritus	1966-2000
Loren H. Hoffman, Ph.D., Professor%	1969-1999
John A. Freeman, M.D., Ph.D., Professor	1971-1994
Vivien A. Casagrande, Ph.D., Professor	1975-present
James A. McKanna, Ph.D., Associate Professor Emeritus	1976-2002
Gary E. Olson, Ph.D., Professor Emeritus	1977-2008
Alfred G. Kasselberg, M.D., J.D., Assistant Professor	1978-2001
Jeanette J. Norden, Ph.D., Professor	1978-present
Paula C. Hoos, Ph.D., Associate Professor	1982-1997
Harold L. Moses, M.D., Professor	1985-2000*+
W. Jackson Pledger, Ph.D., Professor	1985-1994
Edward B. Leof, Ph.D., Associate Professor	1985-1992
Lynn M. Matrisian, Ph.D., Professor	1986-2000
Stephen R. Hann, Ph.D., Professor	1986-present
Jeffrey T. Holt, M.D., Professor	1987-2002
Brigid L.M. Hogan, Ph.D., FRS, Professor	1988-2002
J. Ann Richmond, Ph.D., Professor	1989-2000+
Christopher V.E. Wright, D.Phil., Professor	1990-present
Bruce W. Ennis, Ph.D., Assistant Professor	1990-1993
Steven K. Hanks, Ph.D., Professor Emeritus	1990-2011
Susan R. Fox, Ph.D., Assistant Professor	1990-1993
Kathleen L. Gould, Ph.D., Professor	1991-present
Claude M. Nagamine, Ph.D., Assistant Professor	1991-2000

Mary Ann Arildsen, M.D., Ph.D., Assistant Professor	1991-1998^
David M. Miller, Ph.D., Professor	1994-present
David I. Greenstein, Ph.D., Associate Professor	1994-2006
Peng Liang, Ph.D., Associate Professor	1995-2000
Peter A. Kolodziej, Ph.D., Assistant Professor%	1995-2005
Albert B. Reynolds, Ph.D., Professor	1996-2000+
David W. Threadgill, Ph.D., Assistant Professor	1996-2000
Chin Chiang, Ph.D., Professor	1997-present
Arthur F. Dalley, Ph.D., Professor	1998-present
Christopher F.J. Hardy, Ph.D., Associate Professor	2002-2009
Susan R. Wente, Ph.D., Professor**	2002-present
Daniela Drummond-Barbosa, Ph.D., Assistant Professor	2002-2009
Guoqiang Gu, Ph.D., Associate Professor	2002-present
Ethan Lee, M.D., Ph.D., Associate Professor	2003-present
Laura A. Lee, M.D., Ph.D., Associate Professor	2003-present
Matthew J. Tyska, Ph.D., Associate Professor	2004-present
Irina N. Kaverina, Ph.D., Associate Professor	2005-present
Byeong J. Cha, Ph.D., Assistant Professor	2005-2009
Stacey S. Huppert, Ph.D., Assistant Professor	2005-2012
Patricia A. Labosky, Ph.D., Associate Professor	2006-2012
Ryoma Ohi, Ph.D., Assistant Professor	2007-present
Melanie Ohi, Ph.D., Assistant Professor	2007-present
William Tansey, Ph.D., Professor	2009-present
Andrea Page-McCaw, Ph.D., Associate Professor	2010-present
Ian G. Macara, Ph.D., Professor and Chair	2012-present

\* Chair of Cell Biology (1985-2000), Emeritus Director, Vanderbilt-Ingram Cancer Center

\*\* Chair of Cell Biology (2002-2012), Associate Vice Chancellor Research, Sr. Dean Biomedical Sciences

+ Department of Cancer Biology, VUMC

^ Department of Pathology, Microbiology and Immunology VUMC

% Deceased

*continued on reverse*

