



*The San Francisco Division of the Academic Senate  
Cordially Invites You to Attend*

## **The 51<sup>st</sup> Faculty Research Lecture**

**From Pluripotency to Pattern;  
or, *How I Learned to Stop Worrying And Love the Embryo***

*Given by*

**Gail R. Martin, Ph.D.**

*Professor, Department of Anatomy and Division of Genetics, School of Medicine  
Director, Program in Developmental Biology  
University of California, San Francisco*

***3:30 PM – Tuesday, April 22, 2008 - Cole Hall***

**Simulcast to Rock Hall at Mission Bay**

*Reception immediately following.*

The Academic Senate Faculty Research Lecture recognizes outstanding achievement in research by a member of the Faculty at the University of California, San Francisco. The Academic Senate also awards the Distinguished Clinical Research Lecture, which takes place in the fall.



**Gail Martin, Ph.D.**

Gail Martin was born and raised in New York City. She received her undergraduate degree from the University of Wisconsin, Madison in 1964. As a graduate student in Harry Rubin's laboratory at UC Berkeley, she studied the behavior of chicken cells transformed by Rous sarcoma virus. After receiving her Ph.D. in 1971, Gail did postdoctoral work in Martin Evans' laboratory at University College, London, where she defined conditions for isolating and maintaining pluripotent mouse teratocarcinoma stem cells in the undifferentiated state and for triggering their differentiation in vitro. This work established teratocarcinoma stem cells as a model system for studying the early steps in mouse embryogenesis. After returning to the Bay Area in 1975, she continued postdoctoral work in Charles Epstein's laboratory at UCSF and then joined the UCSF Department of Anatomy, where she is now a Professor.

Building on her earlier work with teratocarcinoma stem cells, in 1981 Gail demonstrated that pluripotent stem cells could be isolated from normal mouse embryos, and coined the term "embryonic stem cells" to describe these cells. Subsequently, she became interested in aspects of embryogenesis that could not be analyzed using in vitro model systems, and embarked on studies of normal embryos. She began investigating the possibility that Fibroblast Growth Factors (FGFs), previously identified as proteins capable of supporting cell growth in vitro, have important functions during embryogenesis, and demonstrated their roles as critical inductive signals in the development of many organs including the brain, limbs, and teeth. More recently, her laboratory has focused on studying the role of negative feedback mechanisms in regulating FGF signaling, and examining the importance for embryonic patterning of controlling these potent inductive signals.

Gail has recently served as President of the Society for Developmental Biology, is a member of the American Academy of Arts and Sciences, and of the National Academy of Sciences. Since 1969, she has been married to Steve Martin (the comedian, and chair of the Molecular and Cellular Biology Department at UC Berkeley). They have one son, Nicholas, who is a software engineer.

