

Inaugural Meeting!!!
Gainesville Section of the
IEEE ENGINEERING IN MEDICINE AND
BIOLOGY SOCIETY

Dr. Walter Freeman
IEEE Distinguished Lecturer
Professor of the Graduate School
Department of Molecular and Cell Biology
University of California at Berkeley

**"Contrasting the Roles of Cognition and
Causality in Medicine, Engineering, and
Biology"**

McKnight Brain Institute
DeWeese Auditorium
November 16, 2006
LG-101A, Noon - 1:00 pm

ABSTRACT

Physicians and engineers share the responsibilities for the welfare of patients and the technologies with which to meet their obligation. Physicians must treat every patient as a unique experiment, working by intuition and experience from inadequate data, and recognizing the limits of their causal role, as epitomized by a famous colleague, Ambroise Paré (1510-1590), who wrote: "Je le pansay; Dieu le guarit" ("I bound his wounds; God healed him"). Engineers and biologists work from basic laws of physics and chemistry, striving for precision, reliability and control, exemplified by proof of cause for infectious diseases in accord with Koch's Postulates. The past two centuries offer a fascinating panorama of the cooperation and conflicts between these two cultures and styles of mentation. Some examples of notable successes and failures will be described in neuroengineering.

For more info. visit - <http://nrg.mbi.ufl.edu/EMBS/embs.htm>
Sponsored by the *McKnight Brain Institute* and the *IEEE EMBS*