WHITAKER BIOMEDICAL ENGINEERING INSTITUTE

DEPARTMENT OF BIOMEDICAL ENGINEERING
FRIDAY SEMINAR SERIES

Jeffrey D. Schall, PhD

E. Bronson Ingram Professor of Neuroscience
Director, Center for Integrative & Cognitive Neuroscience
Director, Vanderbilt Vision Research Center
Vanderbilt University

"Neural Selection and Control of Visual Guided Eye Movements**"**

DATE:	May 6, 2005
TIME:	1:00 p.m. – 2:00 p.m.
PLACE:	**Traylor 709**
Host:	Ed Bartlett

Abstract: Recent research has provided new insights into the neural processes that select the target for and control the production of a shift of gaze. Being a key node in the network that subserves visual processing and saccade production, the frontal eye field has been an effective area in which to monitor these processes. Certain neurons in the frontal eye field signal the location of conspicuous or meaningful stimuli that may be the targets for saccades. Other neurons control whether and when gaze shifts. In contrast, neurons in the supplementary eye field and anterior cingulate cortex appear not to control directly movement
initiation but instead signal the production of errors, the anticipation and delivery of reinforcement and the presence of processing conflict. These signals form the core of current models of supervisory control of sensorimotor processes. The existence of distinct neural processes for visual selection and saccade production is necessary to explain the flexibility of visually guided behavior.

Any questions, contact 410-955-3132.
Check the web for a complete list. **www.bme.jhu.edu/news/seminars**

JOHNS HOPKINS UNIVERSITY
720 RUTLAND AVENUE, BALTIMORE, MD 21205

For Disability Access Information
Contact: Joyce Bankert: 410-955-3132: jbankert@bme.jhu.edu