

Spring 2006 ETCS Colloquium Series

Monday, April 17, 2006
12:00 – 1:15 PM
KT 146

All faculty, staff, students, and community individuals are invited.

fMRI Genes and Outcome from Cochlear Implantation in Children

By



Dr. Scott Holland

Abstract:

Cochlear Implantation (CI) has revolutionized the management of congenitally deaf children. A growing body of evidence suggests that performing CI as early as possible in congenitally deaf infants and toddlers results in the best outcome. However, auditory perception and language skills are difficult to assess accurately in infants. Functional magnetic resonance imaging (fMRI), offers a novel tool for evaluation of central auditory processes in infants. fMRI is non-invasive and presents no known biological risks, even for infants. The ability of fMRI to demonstrate various levels of auditory and language processing in infants and toddlers can provide important data to clinicians that is not available by any other means in prelingual babies. In this presentation the fundamentals of cochlear implantation and fMRI will be explained, the latest research in the area of fMRI in sedated, hearing impaired children will be discussed and new results from a study in 100 deaf infants will be presented.

Biography:

Scott K. Holland, Ph.D. is McLaurin Scholar and Professor of Radiology, Pediatrics, Neuroscience Biomedical Engineering and Physics at the University of Cincinnati in the Cincinnati Children's Hospital Medical Center. Scott Holland is a physicist by training with a B.S. degree (1980) in Physics from Muhlenberg College, Allentown, PA. and M.S. (1982) and Ph.D. (1985) degrees in Engineering and Applied Science from Yale University. Currently he directs the Pediatric Brain Imaging Research Program at UC Children's Hospital. His research currently focuses on pediatric neuroimaging applications with MRI at high field. His major focus is on functional MRI of language, hearing, and neuroplasticity following brain injury.

Pizza and drinks will be furnished, compliments of Dean Volland.

For additional information contact: Ken Modesitt Modesitk@ipfw.edu 481-6237
Coleen DeLong delongc@ipfw.edu 481-6938

02/09/06