We are pleased to announce the 30th Joseph W. St. Geme, Jr., MD Lectureship at Pediatric Grand Rounds, November 11, 2016, at Children’s Hospital Colorado. The recipient of this year’s prestigious Lectureship is Dr. Arthur L. Horwich.

Dr. Horwich’s presentation is titled, “From Bedside to Bench and Back.” Dr. Horwich’s curiosity about biogenesis of a mitochondrial protein involved in a lethal disease led to a discovery of a protein folding machine. He found that “Chaperones” assist folding in the cell and are the front line of defense against misfolding and aggregation.

Arthur Horwich is Sterling Professor of Genetics and Pediatrics and an Investigator of the Howard Hughes Medical Institute at Yale University School of Medicine.

He has been studying protein folding in the cell since 1987, when, during studies of protein import into mitochondria, he uncovered a mutant in which proteins imported into mitochondria failed to reach their biologically active forms. In collaboration with Ulrich Hartl, he showed that the affected gene encoded the subunit of a tetradecameric double ring complex, called Hsp60, that mediates the proper folding of newly-imported proteins. Subsequently, together with Hartl, such ring complexes, called chaperonins, were identified in archaeabacteria and the eukaryotic cytosol.
Horwich then spent the next 25 years using genetic, biochemical, and structural studies to decipher the mechanism by which the bacterial chaperonin, GroEL, mediates protein folding to the native state. Most recently, Horwich has become interested in protein misfolding associated with neurodegeneration, studying a mouse model of ALS produced by misfolding of an abundant protein, superoxide dismutase-1, inside the cytosol of motor neurons.

Horwich received B.A. and M.D. degrees from the Brown University 6-year program, trained in pediatric medicine at Yale, then carried out postdoctoral work at the Salk Institute, working on the molecular mechanism of malignant cell transformation by tumor viruses with Walter Eckhart and Tony Hunter. He then returned to Yale Human Genetics, where working under Leon Rosenberg, he isolated the coding sequence for human ornithine transcarbamylase (OTC), an enzyme affected in an often neonatal lethal urea cycle disorder. The first DNA diagnosis for this condition was developed, and additional studies of the imported mitochondrial subunit of OTC revealed an N-terminal cleavable leader peptide, necessary and sufficient to direct proteins to mitochondria.

The mitochondrial targeting and import attracted Horwich, newly-moved across the hall from Rosenberg as a junior faculty member, to pursue the machinery of mitochondria that is involved with the import reaction, using mutants of baker’s yeast. This led to the uncovering of Hsp60.

Horwich is a member of the National Academy of Sciences and Institute of Medicine. He has received a number of awards including the Gairdner International Award, Lasker Award for Basic Medical Research, and Shaw Prize in Life Science and Medicine, as well as this year’s Albany Prize in Medicine and Biomedical Research.

Horwich enjoys playing tennis, hiking with his kids in the Adirondacks, and playing with his grandkids.

**Joseph W. St. Geme, Jr., MD**

Dr. Joseph W. St. Geme was Dean of the University of Colorado School of Medicine from January 1985 to October 1986, just shy of 21 months. In his short tenure, he is credited with helping to transform the medical school to a modern research-oriented academic center. In 1987, the St.Geme Lectureship was established and supported by the Chancellor’s Office and eight Chairs of the Departments in the School of Medicine who were recruited by Dr. St. Geme. Support was also provided by Dr. Robert Schrier, then Chair of the Department of Medicine and Dr. Frederick Battaglia, then Chair of the Department of Pediatrics. Dr. St. Geme held an academic faculty position in the Department of Pediatrics during his tenure as Dean.

The St. Geme family, in honor of Dr. St. Geme, has supported the St. Geme Lectureship and the Joseph W. St. Geme Memorial Endowment. Each year, the Joseph W. St. Geme, Jr., MD, Medical Student Award is given at the Lectureship to a deserving fourth-year medical student who has demonstrated outstanding research with a mentor and who is interested in a career in academic pediatrics.
Please join us

Friday, November 11, 2016 – Pediatric Grand Rounds 12:30 – 1:30 p.m.
“From Bedside to Bench and Back - Biogenesis of a Mitochondrial Protein Involved in a Lethal Disease Leads to Discovery of a Protein Folding Machine”

Mt. Oxford Auditorium, 2nd Floor Conference and Education Center, Children's Hospital Colorado. CME credit offered. Lunch is available for purchase.

A reception will follow the lecture in the lobby of the Conference and Education Center on the 2nd floor of the hospital at 1:30 p.m.

For more information about the St. Geme Lectureship, please call Bobbi Siegel at (720) 777-3936 or contact her via email: Bobbi.Siegel@childrenscolorado.org