SPECIAL SEMINAR

Prof. Ilia Baskakov

Thu., June 29, 2017, 4-5 PM (coffee will be served)

Rm 4279, Medical Sciences Building

Hosted by Gerold Schmitt-Ulms (Tanz CRND and LMP)

Title: Prion protein misfolding and prion diseases: beyond protein-centric view

Summary: Among a broad range of hypotheses on the molecular nature of transmissible spongiform encephalopathy or scrapie agents discussed in 1960s was a hypothesis of self-replicating polysaccharides. While a number of studies of the past 40 years, including the studies from our laboratory, provided unambiguous proof that this is not the case, emerging evidence suggests that carbohydrates in the form of sialylated N-linked glycans, which are a constitutive part of mammalian prions or PrP^{Sc}, are essential in determining prion fate in an organism.

Our most recent work uncovered the role of N-linked glycans and specifically their sialylation status in controlling prion fate. The seminar will provide an overview of our recent work on the role of N-linked glycans and introduce a new concept that carbohydrate epitopes on the PrP^{Sc} surface serve as main determinants of strain-specific biologic features.

Prof. Baskakov:

1996 Ph.D. in Biophysics, Russian Academy of Science, Moscow, Russia

1996-1998 Postdoctoral Fellow, UTMB, Galveston, TX, Supervisor Dr. D.W. Bolen

1999-2001	Postdoctoral Fellow, University of California, San Francisco, CA, Supervisor Dr. S.B. Prusiner
Since 2001	Faculty at University of Maryland, Baltimore