Orban Presents at Gordon Conference in Switzerland

Fellow Dr. John Orban spoke at the Intrinsically Disordered Proteins Gordon Research Conference held in Les Diablerets, Switzerland in early July. The conference, subtitled Transcending Scales of Protein Disorder from Molecules to Medicines, focused on this major class of proteins that exist in ensembles of structures, rather than a single functional state.

Dr. Orban presented work from two systems his team is exploring in his talk titled “Disordered Regions in Ensemble and Fold Switching”.

One project in the Orban Lab focuses on a protein called prostate associate gene 4 (PAGE4), which is involved in early development of the human prostate and is upregulated in prostate cancer. In collaboration with Dr. Prakash Kulkarni (City of Hope National Medical Center, Duarte, CA), Orban has demonstrated that flexibility of PAGE4 is tuned by phosphorylation and that different states have opposing cellular functions associated with the regulation of a key cancer-causing protein.
Orban also presented the work of graduate student Tsega Solomon (IBBR, UMD Department of Chemistry and Biochemistry). Solomon’s project, a collaboration with Dr. Philip Bryan (IBBR Emeritus Professor and Founder, Potomac Affinity Proteins, LLC), involves using disordered regions to engineer a protein that switches between two distinct folds in response to temperature change.

Gordon Research Conferences, established in 1931, bring global networks of experts together in a unique, informal, and discussion-based format to advance the frontiers of cutting-edge, emerging fields of research.

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