Novinky v biomedicínském výzkumu / Biomedical Research News

Přednášky předních světových odborníků / Lectures of international experts in biomedicine

Úterý 19. března 2019 / Tuesday March 19, 2019

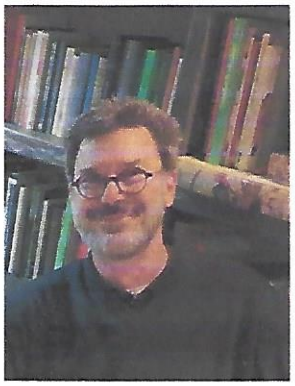
Velká zasedací místnost děkanátu 1. LF UK, Na Bojišti 3, Praha 2
Large meeting room of Dean's Office Building, 1. LF UK, Na Bojišti 3, Praha 2

1. LÉKAŘSKÁ FAKULTA Univerzita Karlova

8,45 Registration for students

9,00 – 10,00 Glycopeptides as immunological probes for the characterization of autoantibodies, biomarker of multiple sclerosis

Sophisticated approaches have recently led to identify novel autoantigens associated with Multiple Sclerosis (MS). We succeeded to identify putative antigens recognized by autoantibodies isolated from MS patients' serum, we have shown that a family of glucoasparagine (N-Glc) glycopeptides specifically identifies serum autoantibodies in a subset of MS patients. Antibodies specific to the prototype glucosylated peptide probe termed CSF114(Glc) were detected, isolated, and characterized as potential biomarkers of an MS subpopulation.



Paolo Rovero

Interdepartmental Laboratory of Peptide and Protein Chemistry and Biology, Department of NeuroFarBa, University of Florence, Italy. Is professor of medicinal chemistry at the Medical School of the University of Florence, Italy. Since 1985, his research interests are related to the design, synthesis, conformational analysis and biological characterization of peptides of pharmaceutical, cosmeceutical, and biotechnological interest. In 2003 moved to the University of Florence, where he is a co-founder of the Interdepartmental Laboratory of Chemistry and Biology of Peptides and Proteins.

10,15 – 11,15 In search of the autoantigen: from synthetic peptides to bacterial glycoproteins

We applied immunological and biophysical approaches to reveal that a hyperglucosylated adhesion protein derived from the opportunistic pathogen Haemophilus influenzae shares a common glucosylated epitope with CSF114(Glc) and we hypothesized that the H. influenzae hyperglucosylated adhesin can be considered a relevant candidate for triggering pathogenic (auto)-antibodies in MS. These results laid the foundation for determining the nature of a possible molecular mimicry mechanism breaking immunological tolerance and leading to autoimmunity, and for elucidating the human protein target(s) recognized by anti-hyperglycosylated adhesin antibodies in MS.

Anna Maria Papini

Interdepartmental Laboratory of Peptide and Protein Chemistry and Biology, Department of Chemistry "Ugo Schiff", University of Florence, Italy Is Professor of bioorganic chemistry at the University of Florence (Italy) and laureate of the "Chaire d'Excellence" 2009-2014 of the French "Agence Nationale de la Recherche" at the Université Paris-Seine (France). In recognition of her outstanding contribution to peptide science in 2008 she was the recipient of the Leonidas Zervas Award of the European Peptide Society. In 2008 she started and presently coordinates the French-Italian Interdepartmental Laboratory of Peptide & Protein Chemistry & Biology (www.peptlab.eu). She is author of 250+ peer-reviewed articles and of 10 filed patents.

Přednáškové odpoledne je součás í kurzu „Novinky v biomedicínském výzkumu", který je jeden z doporučených povinně volitelných kurzů pro Ph.D. studenty oboru Biochemie a patobiochemie (Oborová rada 04) a Fyziologie a patofyziologie člověka (Oborová rada 05). Účastníci na konci kurzu získají zápočet. Kurz je sestaven z přednášek zahraničních a domácích světově uznávaných odborníků zabývajících se molekulovými mechanismy e iologie, patogeneze a terapie chorob. Vítáni jsou i studen i jiných oborů a zájemci z řad vědeckých pracovníků a lékařů.

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