

Understanding neurological diseases: Synchrotron science in a multidisciplinary approach



Wednesday, 7th February 2018 - Microsymposium UDM3 Venue: IBS seminar room

08:30 - 09:00	Welcome		
	Session I: Structural Biology - Chair: Gabriele Giachin		
09:00 - 09:30	Keynote talk: A structural App for APP in Alzheimer Disease.	Klemens Wild Heidelberg University, Germany	
09:30 - 10:00	Keynote talk: Molecular mechanisms of AMPA Glutamate Receptors: insights from structural and functional studies.	Beatriz Herguedas Francés MRC Cambridge, UK	
10:00 - 10:20	Structure of well-ordered AB(1-42) amyloid fibrils.	Henrike Heise Research Centre Jülich, Germany	
10:20 - 10:40	Coffee break		
10:40 - 11:00	SRGAP truncations confer human brain advantages and vulnerabilities.	Yarden Opatowsky Bar-Ilan University, Ramat Gan, Israel	
11:00 - 11:20	Lipid Amide Signaling in Metabolic and Neurological Disorders.	Gianpiero Garau Istituto Italiano di Tecnologia, Pisa, Italy	
	Session II: nano X-ray fluorescence - Chair: Marina Mapelli		
11:20 - 11:50	Keynote talk: Imaging bio-metals in neurons with X-ray nanobeams.	Richard Ortega CENBG, CNRS, University of Bordeaux, France	
11:50 - 12:10	Nanotomography and X-ray fluorescence microscopy for quantitative iron concentration map in inflamed cells.	Chiara Gramaccioni Univeristà La Sapienza, Rome, Italy	
12:10 - 12:30	Smart biomimetic nanostructured surfaces as a tool for synchrotron μ XRD and μ FTIR characterization of neurodegenerative peptides.	Angelo Accardo LAAS-CNRS, Toulouse, France	
12:30 - 14:00	Lunch		
14:00 - 14:20	FTIR Microscopy study of Dense and Diffuse Alzheimer Plaques.	Núria Benseny-Cases ALBA synchrotron, Barcelona, Spain	
14:20 - 14:40	Investigating Gadolinium-Depositions in EAE mouse brain tissue after MRI contrast agent application.	Bernhard Hesse ESRF, Grenoble, France	
	Session III: X-ray tomography and novel radiation therapies - Chair: Paola Coan		
14:40 - 15:10	Keynote talk: X-ray Phase Contrast Tomography for the investigation of Central Nervous System and neurodegenerative diseases.	Alessia Cedola CNR, Rome, Italy	
15:10 - 15:30	Synchrotron Generated Cortical and Hippocampal transections: a novel experimental tool for the treatment of Epilepsy.	Alberto Bravin ESRF, Grenoble, France	

15:30 - 15:50	Micro-fractionated brain cancer high dose radiosurgery observed using 3D X-ray phase contrast CT.	Giacomo Barbone Ludwig Maximilians University, Garching, Germany
15:50 - 16:15	Coffee break	
16:15 - 16:30	Non-invasive imaging of therapeutic cells transplanted in the inflamed rat brain by spectral photon counting computed tomography (SPCCT) and Synchrotron kedge imaging.	Chloe Dumot Université Lyon 1, Oullins, France
16:30 - 16:50	Cortical horizontal connections as key players of seizure generation in absence epilepsy.	Antoine Depaulis INSERM – UJF, GIN, Grenoble, France
	Closing remarks	