

## Wednesday, 6<sup>th</sup> February 2019 - Microsymposium UDM2 Venue: IBS Seminar Room

08:15	Registration in the Entrance Hall of the IBS	
08:45	Introduction to the microsymposium UDM2	
	<b>Session I: Complex systems functions and disorders</b> Chair: Alejandro Fernandez-Martinez	
08:50 – 09:25	<b>Keynote talk:</b> Hierarchical architecture and in situ attachment of adhesive spider hairs examined using scanning nano-focus X-ray diffraction	<b>Clemens Schaber</b> <i>Kiel University, Germany</i>
09:25 – 09:45	SLC30A10 mutation involved in parkinsonism results in manganese accumulation in Golgi vesicles revealed by synchrotron XRF nano-imaging	<b>Asuncion Carmona</b> <i>University of Bordeaux, France</i>
09:45 – 10:05	Cryo X-ray nano-tomography of a neural circuit controlling leg movements	<b>Jasper Maniates-Selvin,</b> <i>Harvard Medical School, USA</i>
10:05 – 10:35	XRF nano-imaging of neuronal cells in the substantia nigra – a study of Parkinson Disease pathogenesis	<b>Laurence Lemelle,</b> <i>LGL-TPE, Ecole Normale Supérieure de Lyon, France</i>
10:35 – 11:05	<i>Coffee break &amp; poster session</i>	
	<b>Session II: Complex structures of bio-materials</b> Chair: Marine Cotte	
11:05 – 11:40	<b>Keynote talk:</b> Analysis of intracellular hydroxyapatite nucleation in the early stages of human osteogenic differentiation combining synchrotron-based and diffraction techniques	<b>Stefano Iotti</b> <i>Department of Pharmacy and Biotechnology (FaBit), Università di Bologna, Italy</i>
11:40 – 12:00	Multiscale x-ray imaging of cartilage for investigation of osteoarthritis development	<b>Johannes Ströbel</b> <i>LMU, Germany</i>
12:00 – 12:20	Scanning x-ray diffraction and coherent imaging of soft biological samples	<b>Jan-David Nicolas</b> <i>Göttingen University, Germany</i>
12:20 – 12:40	Spatially resolved quantification of metallic wear and corrosion products in human peri-implant bone marrow by means of high-resolution synchrotron XRF	<b>Bernhard Hesse</b> <i>Xploraytion GmbH, Berlin Germany</i>
12:40 – 14:00	<i>Lunch at ESRF/ILL restaurant</i>	
	<b>Session III: Complex environmental processes</b> Chair: Hiram Castillo-Michel	
14:00 – 14:35	<b>Keynote talk:</b> Plant-bacteria interactions looked under the synchrotron-based X-ray microscopes: visualizing nutrients 'dynamics'	<b>Isidro Abreu</b> <i>Universidad Politécnica de Madrid, Spain</i>
14:35 – 14:55	Iron uptake by marine phytoplankton: input from X-ray fluorescence nano-imaging	<b>Marie-Pierre Isaure</b> <i>IPREM-UMR 5254, France</i>
14:55 – 15:15	Interactions of silver nanoparticles with wheat plants: multi-scale studies	<b>Ana-Elena Pradas del Real</b> <i>IMIDRA, Spain</i>
15:15 – 15:40	EBS and bio-imaging	<b>Jean Susini</b> <i>Director of Research, ESRF</i>
15:40 – 16:00	<b>Discussion - End of Meeting</b>	