

User-Dedicated Microsymposium 3

HIERARCHICAL IMAGING OF BIOLOGICAL, BIO-MIMETIC AND BIO-COMPATIBLE MATERIALS

Monday 9 February & Wednesday 11 February

VENUE: ESRF AUDITORIUM

MONDAY 9 FEBRUARY

15:00 - 15:30	Presentation of onsite Laboratories/Facilities	Fabio Comin
	Welcome	Marine Cotte
15:30– 18:30	Bioimaging Instrumentation Presentations	
15:30 - 15:50	Nano-tomography and nano-fluorescence at ID16A	Alexandra Pacureanu/ Yang Yang
15:50 - 16:10	Hard X-Ray Nano-Analysis at ID16B	Damien Salomon/Jussi-Petteri Suuronen
16:10 - 16:30	Coherent diffraction imaging at ID10: current status and challenges	Yuriy Chushkin
16:30 - 16:50	Micro- and Nano-diffraction at ID13	Manfred Burghammer
16:50 – 17:10	Coffee and tea will be served in the Marquee	
17:10 - 17:30	X-ray and infrared microscopy at ID21	Bernhard Hesse
17:30 - 17:50	Imaging techniques and capabilities at ID17	Alberto Bravin
17:50 - 18:10	Multi-scale approaches using propagation-based phase contrast on biological samples at ID19	Paul Tafforeau
18:10– 18:30	Presentation of Laboratories/Facilities	
18:10 - 18:20	Invisible Touch - High Speed Atomic Force Microscopies for SR techniques	Luca Costa
18:20 - 18:30	The Biomedical facility	Géraldine Le Duc
18:30 – 20:30	Wine & Cheese in the Marquee	

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WEDNESDAY 11 FEBRUARY

09:00 - 09:05	Welcome	Alexander Rack , ESRF, France
09:05 - 10:35	Session 1- Chairman: Hiram Castillo	
09:05- 09:35	Keynote Talk 1: Synchrotron radiation to uncover protective effects of drugs in hearing	Claus-Peter Richter Northwestern University Feinberg School of Medicine, Chicago USA
09:35 - 09:55	Nano-silver for the treatment of burns: high resolution imaging and speciation in human skin	Marco Roman University Ca' Foscari Italy
09:55 - 10:15	Three-dimensional investigation of the orientation and microelastic properties of mineralized collagen fibrils in human osteonal bone	Susanne Schrof Charité Universitätsmedizin, Germany
10:15 - 10:35	Nanotechnology meets synchrotron radiation: biomimetic nanostructured surfaces for soft matter structural studies	Angelo Accardo Italian Institute of Technology Italy
10:35 - 11:00	Coffee break	
11:00 - 12:30	Session 2 – Chairman: Alexander Rack	
11:00- 11:30	Keynote Talk 2: Thinking small: seeing the invisible in human tooth dentin	Paul Zaslansky Charite, Berlin Germany
11:30 - 11:50	Bone tissue ultrastructure characterization by X-ray ptychography and tomographic coherent X-ray diffraction imaging	Mariana Verezhak LIPhy, UJF-CNRS Grenoble France
11:50 - 12:10	High-resolution XANES analyses of sulphur and phosphorus in gastroliths, crustacean calcium storage structures	Gilles Luquet Muséum National d'Histoire Naturelle France
12:10 - 12:30	<i>In vivo</i> X-ray elemental imaging of single cell model organisms manipulated by laser-based optical tweezers	Eva Vergucht Ghent University Belgium
12:30 - 14:00	Lunch	

14:00 – 16:00	Session 3 – Chairman: Vincent Fernandez	
14:00- 14:30	Keynote Talk 3: Advanced imaging in Regenerative Medicine and Tissue Engineering	Ranieri Cancedda University of Genova Italy
14:30 - 14:50	Modeling lung mechanics to prevent ventilator induced injury	Ludovic Broche ESRF France
14:50 - 15:10	Imaging and quantitative analysis of food microstructures using X-ray microtomography	Gerard van Dalen Unilever The Netherlands
15:10 - 15:30	Bone mineralization in response to a degrading Magnesium implant – Insights from the bone-implant interface by multi-modal synchrotron X-ray imaging	Tilman Grünewald BOKU - University of Natural Resources and Life Sciences, Vienna Austria
15:30- 16:00	Keynote Talk 4: Surprising Biocrystals: a top-down approach to their structures and growth-modes	Jean-Pierre Cuif University Paris Sud, Orsay France
16:00- 16:30	Visit of beamlines, upon request	
16:30	End of Meeting	