Summer School on:

"INTRINSICALLY DISORDERED PROTEINS (IDPs) – FROM PHYSICAL CHEMISTRY TO PATHOGENIC MECHANISMS"

Date: September 23-26, 2019

Venue: Como Lake, Villa Grumello

Organizers: Sonia Longhi (CNRS Marseille), Stefania Brocca (University Milano-Bicocca), Rita Grandori (University Milano-Bicocca), Antonella Forlino

(University of Pavia)

Sponsors: Fondazione Alessandro Volta, Thermo Fisher Scientific, AFMB-CNRS Marseille

Confirmed speakers:

Sonia Longhi, Laboratory of Architecture and Function of Biological Macromolecules (AFMB), CNRS and Aix-Marseille University (Marseille, FR)

Monika Fuxreiter, Medical Faculty, University of Debrecen (Debrecen, HU)

Peter Tompa, VIB-VUB Center for Structural Biology (Bruxelles, BE)

Frédéric Carrière, Laboratory of Bioenergetics and Protein Engineering, CNRS and Aix-Marseille University (Marseille, FR)

Salvador Ventura, Department of Biochemistry and Molecular Biology, Autonomous University of Barcelona (Barcelona, SP)

Johnny Habchi, Centre for Misfolding Disease, University of Cambridge (Cambridge, UK)

Thierry Michon, French Institute of Agronomic research and University of Bordeaux (Bordeaux, FR)

Silvio Tosatto, Department of Biomedical Sciences, University of Padua (Padua, IT)

Stefano Gianni, Sapienza University of Rome (Roma, IT)

Barbara Zambelli, Department of Pharmacy and Biotechnology, University of Bologna, (Bologna, IT)

Giuseppe Legname, Department of Neuroscience, International School for Advanced Studies (Trieste, IT)

Michael Assfalg, Department of Biotechnology, Unversity of Verona (Verona, IT)

Fabio Moda, IRCCS Foundation Carlo Besta Neurological Institute (Milan, IT)

Carlo Camilloni, Department of Bioscience, University of Milan (Milan, IT)

Alfonso Gautieri, Milano, Department of Electronic, Information and Bioengineering, Polytechnic University of Milan (Milan, IT)

Francesco Mantegazza, School of Medicine and Surgery, University Milano-Bicocca (Milan, IT)

PierLuigi Mauri, Institute of Biomedical Technologies, CNR (Milano, IT)

Claudio lacobucci, Department of Pharmaceutical Chemistry & Bioanalytics, Institute of Pharmacy, Martin-Luther University Halle-Wittenberg (Halle, DE)

	Conformational transitions and interactions	IDPs and neurodegeneration Biomedical and agronomical relevance	Advanced experimental techniques	Computational approaches
	Program			
	23 September 2019 Monday	24 September 2019 Tuesday	25 September 2019 Wednesday	26 September 2019 Thursday
9:30	Opening Introduction to	Biology of prion protein and α-synuclein	NMR (Michael Assfalg)	Evolution and classification (Silvio Tosatto)
555	conformational disorder (Sonia Longhi)	(Giuseppe Legname) Aggregation mechanism of neurodegeneration-	Electron Paramagnetic Resonance (Sonia Longhi)	Aggregation prediction
	Fuzzy complexes (Monika Fuxreiter)	related IDPs (Fabio Moda) Amyloid-β peptide	Stopped-flow techniques (Stefano Gianni) Atomic force microscopy	(Salvador Ventura) Interaction networks
13:00	·	(Johnny Habchi)	(Francesco Mantegazza)	(PierLuigi Mauri)
	Lunch		Lunch	Lunch
14:00	Phase transitions	Lunch and boat excursion	MS-based "omics" (PierLuigi Mauri)	Conformational ensembles (Carlo Camilloni)
555	(Peter Tompa)	Enzymatic IDPs (Barbara Zambelli) Viral adaptability (Thierry Michon)	Cross-linking MS (Claudio Iacobucci)	Amyloid structures (Alfonso Gautieri) Concluding remarks
	Interface-mediated conformational transitions (Frédéric Carrière)		Native MS (Rita Grandori)	
17:30			Instrumental advances (Termofisher Specialist)	
			Social event	