High resolution tools to understand the functional role of protein intrinsic disorder

21 – 26 September 2014

Castiglione della Pescaia, Italy

Scientific Programme

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Thanks to

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Magdalena Korsak
Tatiana Kozyreva
Alexandra Louka
Marcela Nogueira
Talita Pagani
Alessandro Piai

Sunday 21st September

16:00 – 18:00	Registration
18:00 – 18:20	**Isabella C. Felli & Roberta Pierattelli** *Opening*
18:20 – 18:50	**Vladimir N. Uversky** *Intrinsically disordered proteins: Past, present, and future.*
19:00 – 20:00	Aperitif
20:00 – 22:00	Dinner

Monday 22nd September

9:00 – 9:30	**Peter Tompa** *The pE-DB database: a tool for approaching IDP function by dynamic structural ensembles.*
9:40 – 10:10	**Isabella C. Felli** *New methods to study intrinsically disordered proteins based on ^{13}C direct detection.*
10:20 – 10:40	**John L. Markley** *Serial functional conversions between disordered and ordered states in the scaffold protein for iron-sulfur cluster biosynthesis.*
10:45 – 11:15	Coffee
11:15 – 11:45	**Michele Vendruscolo** *Structure and dynamics of intrinsically disordered proteins.*

11:55 – 12:25	**Rainer Kümmerle** *NMR hardware.*
12:35 – 12:55	**Priyanka Joshi** *Targeting IDPs: A fragment-based strategy for the screening of small drug-like molecules for intrinsically disordered proteins.*
13:00 – 16:00	Seaside & Sandwich
16:00 – 16:30	**András Dinnyés** *Neuronal differentiation from human induced pluripotent stem cells.*
16:40 - 17:00	**Kyou-Hoon Han** *The Pre-Structured Motifs (PreSMos) in IDPs.*
17:05 – 17:25	**Magdalena Korsak** *From IDP to Alzheimer's disease - insight into beta amyloid protein.*
17:30 – 18:00	Coffee
18:00 – 18:20	**Jaka Kragelj** *Role of intrinsically disordered regions in MAP kinase signaling pathways: Substrate recognition in the c-Jun N-terminal kinase (JNK) pathway*.
18:25 – 18:45	**Frans A.A. Mulder** *Unambiguous sequential assignments by correlating the backbone chemical shifts of seven contiguous residues in a 3D spectrum.*
18:50 – 19:20	**Ad Bax** *New methods and parameters for defining IDP structure and dynamics*.
19:45 – 21:00	Dinner
21:00 – 23:00	***Posters***

Tuesday 23rd September

9:00 – 9:30	**Martin Blackledge** *Complex dynamics and dynamics complexes: Visualizing the molecular recognition trajectories of intrinsically disordered proteins.*
9:40 – 10:10	**Dmitri I. Svergun** *Small-angle X-ray scattering to study the structure and flexibility of biological macromolecules in solution.*
10:20 – 10:40	**Erica Valentini** *SASBDB: a curated repository of biological small angle scattering data and models*.
10:45 – 11:15	Coffee
11:15 – 11:45	**Monika Fuxreiter** *Genome-wide analysis of fuzzy complexes.*
11:55 – 12:25	**Toby J. Gibson** *IDP and cell regulation by molecular switching.*
12:35 – 12:55	**Pallab Bhowmick** *Tripartite degrons impart diversity, specificity and multi-layered regulability to ubiquitin-mediated proteasomal degradation.*
13:00 – 16:00	Seaside & Sandwich
16:00 – 16:30	**Andrea Degen** *Graduate curricula: Support towards academic careers and beyond.*
16:30 - 17:30	Round table on pE-DB
17:30 – 18:00	Coffee
18:00 – 18:20	**Elisar Barbar** *Protein disorder in dynein regulation by dynactin.*

18:25 – 18:45	**Biao Fu** *Molecular dynamics simulations of intrinsically disordered proteins with replica-averaged chemical shift restraints.*
18:50 – 19:20	**Peter E. Wright** *Intrinsic disorder, posttranslational modification, and signaling complexity.*
20:00 – 22:00	BBQ and music

Wednesday 24th September

9:00 – 9:30	**Christian Griesinger** *Dynamics of biomolecular systems studied by NMR and further biophysical techniques.*
9:40 – 10:10	**Robert Konrat** *NMR spin relaxation approaches to structural dynamics of intrinsically disordered proteins.*
10:20 – 10:40	**Tomáš Hošek** *^{13}C detected experiments to monitor $^{1}H^{N}$ and $^{1}H^{\alpha}$ longitudinal relaxation: Hints on protein compactness and solvent accessibility.*
10:45 – 11:15	Coffee
11:15 – 11:45	**H. Jane Dyson** *NMR studies of structure and flexibility in the NFκB-IκBα system.*
11:55 – 12:25	**Sonia Longhi** *Order and disorder within the replicative complex of paramyxoviruses.*
12:35 – 12:55	**Eduardo O. Calçada** *Characterization of flexible linkers: the case of ID4 from CBP.*
13:00 – 16:00	Seaside & Sandwich
16:00 – 17:30	***Posters***

17:30 – 18:00	Coffee
18:00 – 18:20	**Mikhail Kachala** *Monte-Carlo based approach for simultaneous determination of form and structure factors for mono- and polydisperse solutions in small angle scattering data analysis.*
18:25 – 18:45	**Cesyen Cedeño** *Towards an in-cell NMR experiment for plants. Dos and don'ts.*
18:50 – 19:20	**Philipp Selenko** *Atomic resolution insights into the structure of a human amyloid protein in neuronal and non-neuronal cells.*
20:00 – 22:00	Dinner

Thursday 25th September

9:00 – 9:30	**Bernhard Brutscher** *Fast sensitivity-enhanced NMR experiments for the study of intrinsically disordered proteins (IDPs).*
9:40 – 10:00	**Vladislav Yu. Orekhov** *Causality principle in reconstruction of sparse NMR spectra.*
10:05 – 10:25	**Fabien Ferrage** *A new approach for the Interpretation of NMR relaxation rates to characterize dynamics in intrinsically disordered proteins.*
10:30 – 10:50	**Sergio Gil** *NMR studies of intrinsically disordered proteins at near physiological conditions.*
10:55 – 11:25	Coffee

11:25 – 11:55	**Xavier Salvatella** *Order disorder transitions in the androgen receptor: implications for the onset and treatment of prostate cancer.*
12:05 – 12:35	**Roberta Pierattelli** *The heterogeneous structural behaviour of viral intrinsically disordered proteins revealed by NMR spectroscopy.*
12:45 – 13:05	**Tatiana Kozyreva** *Potential SOD1 fALS mutants toxic species precursor revealed by in-cell NMR.*
13:10 – 16:00	Seaside & Sandwich
16:00 – 16:20	**Zsófia Sólyom** *Transient structure and dynamics of the intrinsically disordered region of HCV protein NS5A.*
16:25 – 16:55	**A. Keith Dunker** *Intrinsically disordered protein and multicellular organisms.*
17:05 – 17:30	Closing
17:30 - night	Sunset in Castiglione and Closing dinner

Friday 26th September

Departure