Scientific Program

Thursday, August 25		
08.30- 09.00	***Registration***	
09.00 - 09.20	***Opening remarks: (C. La Rosa, D. Milardi)***	
	Chairperson: B. Strodel	
09.20 – 9.40	**Yifat Miller** Neuropeptides: Roles, aspects and activities in amyloid aggregation	**1**
09.40 – 10.00	**Sudipta Maiti** A Molecular Imprint of ApoE-Amyloid Beta interaction in brain cells	**2**
10.00 – 10.20	**Roland Riek** The environment-dependent structures of alpha-synuclein	**3**
10.20 – 10.40	**Sophie Lecomte** Near Field microscopies to probe the structures of amyloid peptides and their interactions with membrane	**4**
10.40 – 11.00	**Daniel Otzen** Targeting the cytotoxic species in Parkinson's Disease	**5**
11.00 – 11.40	**Coffee Break 1**	
	Chairperson: C. Griesinger	
11.40 – 12.00	**Ehud Gazit** The crosstalk between proteins and metabolites in amyloid diseases	**6**

12.00 – 12.20	**Celine Galvagnion** Interplay between lipid and alpha-synuclein levels in Parkinson's Disease **7**
12.20 – 12.40	**Rakez Kayed** Tau oligomers: Challenges and opportunities in neurodegenerative tauopathies **8**
12.40 – 13.00	**Henrike Heise** Protein folding and misfolding: before, during and after **9**
13.00 – 14.00	**Lunch 1**
14.00 – 15.00	**Poster session I**

Thursday, August 25	
Chairpersons: C. Galvagnion	
15.00 – 15.20	**Tuomas Knowles** Dynamics of protein phase transitions **10**
15.20 – 15.40	**Astrid Graslund** The amyloid beta peptide in Alzheimer´s disease: biophysical studies of interactions, structure conversions and aggregation **11**
Short talks	
15.40 – 15.50	**Giuseppe Grasso,** Università di Catania, Italy **1 O**
15.50-16.00	**Andreas Ramnath,** Chalmers University of Technology, Sweden **2 O**

16.00 – 16.10	**Luigi Russo,** Università Vanvitelli, Caserta, Italy	**3 O**
1610 – 16.20	**Carmelo Tempra,** Czesch Academy of Sciences, Prague	**4 O**
16.20 – 17.00	**Coffe Break 2**	
	Chairpersons: R. Kayed	
17.00 – 17.20	**Fabrizio Chiti** Structural investigation of TDP-43 inclusions in situ and relationship to their toxicity in ALS and FTLD-U	**12**
17.20 – 17.40	**Lucie Khemtemourian** IAPP in type 2 diabetes: targets and inhibitors	**13**
17.40 – 18.00	**Amedeo Caflisch** Structure-based design of antiprion compounds	**14**

Free Time

Friday, August 26		
Chairperson: A. Caflisch		
9.00 – 9.20	**Claudio Fernandez** Molecular biophysics of αS aggregation	**15**
9.20 – 9.40	**Louise Serpell** Triggering tau assembly in vitro and in cells	**16**
9.40 – 10.00	**Birgit Strodel** Effects of in vivo conditions on protein aggregation: computational approaches	**17**
10.00 – 10.20	**Dieter Wilbold** Anti-prionic mode of action for the treatment of neurodegenerative diseases	**18**
Short talks		
10.20 – 10.30	**Daniela Valensin,** Università di Siena, Italy	**5 O**
10.30 – 10.40	**Kariem Ezzat Ahmed,** Karolinska Institutet, Stockholm, Sweden	**6 O**
10.40 – 10.50	**Karima Abramov-Harpaz,** Ben-Gurion University, Israel	**7 O**
10.50 – 11.00	**Jing Hu,** Lund University, Sweden	**8 O**

11.00 – 11.40	**Coffee Break 3**
Chairperson: M. Vendruscolo	
11.40 – 12.00	**Paul E. Fraser** Novel Therapeutics for Protein Misfolding Disorders **19**
12.00 – 12.20	**Christopher Jaroniec** Structural studies of Y145Stop prion protein amyloids **20**
12.20 – 12.40	**Christian Griesinger** Structural biology towards therapy and diagnosis of neurodegenerative diseases with DPP compounds **21**
12.40 – 13.00	**Philippe Derreumaux** Simulations of amyloid aggregation **22**
13.00 – 14.00	**Lunch 2**

Friday, August 26	
15:00 –16:00	**Poster session II**
16:00 – 19.00	**Excursion**
20.00	**Social dinner**

Saturday, August 27	
Chairperson: D. Otzen	
9.00 – 9.20	**Jean Baum** Mechanistic insights into intermolecular interactions in alpha-synuclein aggregation processes **23**
9.20 – 9.40	**Michele Vendruscolo** Kinetics-based drug discovery for neurodegenerative diseases **24**
9.40 – 10.00	**Jin Hyung Lee** Brain circuit modeling with optogenetic functional magnetic resonance imaging **25**
10.00 – 10.20	**Giuseppe Pappalardo** Short peptide conjugates for neuroprotection and Aβ detection **26**
10.20 – 10.40	**Valerie Daggett** to be decided **27**
10.40 – 11:00	**Sandrine Ongeri** Mimicking amyloid protein self-interactions or chaperone-amyloid protein interaction with folded peptidomimetics to prevent amyloid protein aggregation **28**

11.00 – 11.40	**Coffee Break 4**
Chairpersons: L. Khemtemourian	
11.40 – 12.00	**Neville Vassallo** Amyloid pores - a new class of mitochondrial porins? **29**
12.00 – 12.20	**Fabio Lolicato** The Lipid-Chaperone Hypothesis: A unifying framework for amyloid-mediated membrane damage **30**
12.20 – 12.40	**Danilo Milardi** Targeting Aβ proteostasis in AD **31**
12.40-13:00	**Concluding remarks (Rams)**

Poster session I (14.00 – 15.00) Thursday, August 25

P1	**S. Ben-Shushan** Insulin fibrillation control by specific zinc binding sites
P2	**K. Abramov-Harpaz** The non-proteolytic effect of the insulin-degrading enzyme on early-stage amyloid-β oligomers (selected for short oral communication)
P3	**W. Hoyer** Sequence-based identification of amyloidogenic β-hairpins reveals a prostatic acid phosphatase fragment promoting semen amyloid formation
P4	**S. Zimbone** Amyloid β 8-20 fragment: characterization and anti aggregating properties
P5	**M. Sevenich** Direct disassembly of α-syn preformed fibrils into native α-syn monomer by an all-D-peptide
P6	**V. Halipi** Inhibition of Aβ (1-42) aggregation kinetics by two types of cell-derived extracellular vesicles
P7	**L. Vitagliano** A survey of amyloid structures reported in the Protein Data Bank
P8	**G. Di Natale** Limited proteolysis studies of Aβ42 by mass spectrometry: an alternative approach to investigate the interactions between Aβ42 and its aggregation inhibitors
P9	**F. Bellia** Exogenous and endogenous influencers of the α-Synuclein structure and function: role and interplay
P10	**Giulia Grasso** VEGF fragments modulate Aβ aggregation and toxicity on differentiated SH-SY5Y cells
P11	**K. Ezzat** Proteins Do Not Replicate, They Precipitate: Phase Transition and Loss of Function Toxicity in Amyloid Pathologies (selected for short oral communication)

P12	**N. Tonali** Rational design approaches to interfere with protein misfolding and aggregation using peptidomimetic foldamers
P13	**F. Piscitelli** Potential role of the microbiome-endocannabinoidome connection in the gut-brain axis after traumatic brain injury and its association with Alzheimer's disease.
P14	**A. Ramnath** Intracellular trafficking of amyloid-β in cultured neuronal cells. (selected for short oral communication)

Poster session II (15:00 – 16:00) Friday, August 26

P15	**R. Tosto** Porphyrin-KLVFF: synthesis and neuroprotection action in Alzheimer's disease
P16	**A.M. Santoro** Silybins as multi-target proteostasis rescuers in T2DM: inhibition of IAPP aggregation and 20S proteasome activation
P17	**E. Keane-Rivera** Small-Molecule Screen for LRP1 Inhibitors to Prevent Tau Spread
P18	**V. Lanza** Ubiquitin signalling in neurodegeneration: role of non covalent interactions
P19	**N. Bisi** New α-Synuclein aggregation inhibitors: design, synthesis, biophysical characterization and evaluations
P20	**D. Di Lorenzo** Inhibition of both Tau and Aβ1-42 aggregation by the rational design of β-hairpin peptidomimetics
P21	**Giuseppe Grasso** Determination of biomolecules conformational, oligomerization and metal-binding features by measuring diffusion coefficients with a common SPR instrument (selected for short oral communication)
P22	**J. Hu** GM1 micelles delay amyloid beta aggregation by co-assembly (selected for short oral communication)
P23	**L. Russo** Shedding light on the dark side of protein misfolding and aggregation in prion neurodegenerative diseases (selected for short oral communication)
P24	**M. Lindberg** Strategies for solubility investigation of the amyloid beta peptide
P25	**R. Pagano** Silybin-Hydroxytyrosol Hybrids as MultiTarget Directed Ligands (MTDLs) to Contrast Alzheimer's Disease

P26	**A. Palmigiano** From Mild Cognitive Impairment to Alzheimer's Disease: Cerebrospinal fluid (CSF) Mass Spectrometry (MS) N-Glycan analysis as a tool to predict the conversion
P27	**V. Romanucci** Synthesis and characterization of new curcumin derivatives for AD therapy
P28	**C. Tempra** Disorder to order transition allow possible drug targeting of Aβ(1−40) (selected for short oral communication)
P29	**D. Valensin** Molecular and cellular in vitro studies of natural alkaloids for the treatment of Alzheimer's disease (selected for short oral communication)
P30	**S. Attanasio** Dissecting the effect of extracellular tau on tau in cells: a new cellular model for understanding tauopathies