

PRION 2014 - PRIONS: EPIGENETICS and NEURODEGENERATIVE DISEASES

Shaping the future of prion research

DAY 1: Tuesday May 27 – Aula Magna, SISSA

<i>Time</i>	<i>Event</i>	<i>Presentation title</i>	<i>Presenter</i>
17.45 – 18.15	Opening ceremony	Welcome messages	Giuseppe Legname SISSA, PRION 2014 Chair Guido Martinelli SISSA, Director Local authorities
18.15 – 19.00	Plenary Lecture	Prions causing neurodegeneration: a unifying etiology and the quest for therapeutics	Stanley B. Prusiner University of California, San Francisco
19.15 – 20.00	Plenary Lecture	Functional prions and the maintenance of memory: a perspective	Eric R. Kandel Columbia University
20.00 – 22.00		<i>Welcome cocktail reception, Aula Magna terrace</i>	

<i>Time</i>	<i>Presentation</i>	<i>Presentation title</i>	<i>Presenter</i>
08.45 – 10.30	Physiology – Chairs: Giuseppe Legname and Ina Vorberg		
08:45 – 09.15	Invited.1 Q&A	The molecular basis of prion antibody toxicity	Adriano Aguzzi University Hospital of Zurich
09.15 – 09.45	Invited.2 Q&A	The role of the unfolded protein response in neurodegeneration: a new target for therapy	Giovanna Mallucci MRC Toxicology Unit
09.45 – 10.00	O.1 Q&A	The cellular prion protein controls Notch signalling and neuroectodermal stem cell architecture	Sophie Mouillet-Richard INSERM UMR-S1124
10.00 – 10.15	O.2 Q&A	Cellular prion protein promotes olfactory sensory neuron differentiation and survival	Lindsay E. Parrie Colorado State University
10.15 – 10.30	O.3 Q&A	The role of PrP post-translational modification in prion formation	Glenn Telling Colorado State University
10.30 – 11.00	<i>Coffee break</i>		
11.00 – 12.45	Prions – Chairs: Mathias Jucker and Giovanna Mallucci		
11.00 – 11.30	Invited.3 Q&A	A prion-like protein aggregate triggers host cell defense by induction of catastrophic viral mutagenesis	Motomasa Tanaka RIKEN Brain Science Institute
11.30 – 12.00	Invited.4 Q&A	Defining chronic mental illnesses like schizophrenia by a specific protein pathology: DISC1opathies and others	Carsten Korth University of Düsseldorf
12.00 – 12.15	O.4 Q&A	Generation of a new mouse model showing fast, spontaneous and highly transmissible prion disease	Joaquin Castilla CIC bioGUNE
12.15 – 12.30	O.5 Q&A	C-terminal deletion of prion protein (PrP ^C) leads to a late-onset disease in transgenic mice	Berta Puig University Medical Center Hamburg-Eppendorf
12.30 – 12.45	O.6 Q&A	<i>De novo</i> formation of amyloids and prions	Yuri O. Chernoff Georgia Institute of Technology
12.45 – 14.00	<i>Lunch break</i>		
14.00 – 18.00	Prions – Chairs: Lary C. Walker, Iliia Baskakov and Inga Zerr		
14.00 – 14.30	Invited.5 Q&A	A β seeds	Mathias Jucker University of Tübingen; DZNE
14.30 – 15.00	Invited.6 Q&A	From Alzheimer disease to Alzheimer diseases: evidence for the existence of different A β “strains”	Fabrizio Tagliavini Fondazione IRCCS Istituto Neurologico “Carlo Besta”
15.00 – 15.15	O.7 Q&A	The intersection of prion diseases with Alzheimer disease	Stephen DeArmond University of California, San Francisco
15.15 – 15.30	O.8 Q&A	Gerstmann-Sträussler-Scheinker disease associated with P102L, A117V and F198S <i>PRNP</i> mutations are transmissible prion diseases	Laura Pirisinu Istituto Superiore di Sanità
15.30 – 16.00	<i>Coffee break</i>		
16.00 – 16.30	Invited.7 Q&A	A structural comparison of infectious and non-infectious PrP ^{Sc} molecules	Surachai Supattapone Geisel School of Medicine at Dartmouth
16.30 – 16.45	O.9 Q&A	Influence of <i>Prnp</i> variants on the susceptibility of goats to scrapie and BSE	Patricia Aguilar-Calvo Centro de Investigación en Sanidad Animal (CISA-INIA)
16.45 – 17.00	O.10 Q&A	<i>In vitro</i> temporal assessment of CWD and TME blood-borne prions	Candace K. Mathiason Colorado State University
17.00 – 17.15	O.11 Q&A	Fatal myelopathy in primates exposed to prion contaminated blood products: unmasking abnormal PrP	Emmanuel E. Comoy CEA
17.15 – 17.30	O.12 Q&A	Transmissibility and propagation of PrP ^{Sc} from sCJDMM1-2 in humanized transgenic mice	Ignazio Cali Case Western Reserve University
17.30 – 17.45	O.13 Q&A	Variable protease-sensitive prionopathy; a unique prion variant with inefficient transmission properties	Abigail B. Diack University of Edinburgh
17.45 – 18.00	O.14 Q&A	Developing brain organotypic slice culture to model amyloid plaque formation in vitro	Kirsty A. Ireland University of Edinburgh
20.00 – 22.00	Poster reception, odd numbers		

<i>Time</i>	<i>Presentation</i>	<i>Presentation title</i>	<i>Presenter</i>
08.45 – 10.30	Mechanism of Disease - Chairs: Fabrizio Tagliavini and Byron Caughey		
08.45 – 09.15	Invited.8 Q&A	Prion and Parkinson: Pipe dream or progress?	Patrik Brundin Van Andel Institute
09.15 – 09.45	Invited.9 Q&A	Tau aggregation and neurodegeneration	Michel Goedert MRC Laboratory of Molecular Biology
09.45 – 10.00	O.15 Q&A	Distinct tau prion strains propagate in cells and mice and define different tauopathies	David Sanders Washington University in St. Louis
10.00 – 10.15	O.16 Q&A	AMF-1c-120: An antibody specific for misfolded prion protein recognizes ovarian and lung cancer cells but not normal cells	Neil Cashman University of British Columbia
10:15 – 10:30	O.17 Q&A	Prion protein and copper cooperatively protect neurons by mediating NMDA receptor inhibition through S-nitrosylation	Federico Benetti SISSA
10.30 – 11.00	<i>Coffee break</i>		
11.00 – 12.45	Structural biology – Chairs: Surachai Supattapone and Motomasa Tanaka		
11.00 – 11.30	Invited.10 Q&A	The determinants of protein oligomer toxicity	Fabrizio Chiti University of Florence
11.30 – 12.00	Invited.11 Q&A	Recent advances towards an understanding of the structure of PrP ^{Sc}	Jesus Requena Universidade de Santiago de Compostela
12.00 – 12.15	O.18 Q&A	NMR insights into predisposition for structural conversion of inherited human prion diseases	Janez Plavec Slovenian NMR Centre
12.15 – 12.30	O.19 Q&A	A surprising new structure for the cellular prion protein, and how this structure controls α -cleavage	Glenn L. Millhauser University of California, Santa Cruz
12.30 – 12.45	O.20 Q&A	Resolving the molecular determinants of prion protein aggregation at the single molecule level	Sanjeevi Sivasankar Iowa State University
12.45 – 14.00	<i>Lunch break</i>		
14.00 – 15.30	Cellular Biology – Chairs: Carsten Korth and Sophie Mouillet-Richard		
14.00 – 14.30	Invited.12 Q&A	Role of Tunneling Nanotubes (TNTs) in intercellular spreading of prions and other protein assemblies involved in neurodegenerative diseases	Chiara Zurzolo Pasteur Institute
14.30 – 15.00	Invited.13 Q&A	Life cycle of cytosolic prions	Ina Vorberg German Center for Neurodegenerative Diseases Bonn (DZNE e.V.)
15:00 – 15:15	O.21 Q&A	Cellular prion replication is controlled by expression of extracellular matrix proteins	Peter-Christian Klöhn UCL Institute of Neurology
15.15 – 15.30	O.22 Q&A	Deregulation of the PDK1 / TACE α -secretase signaling axis at the cross-road of prion and Alzheimer's diseases	Benoit Schneider INSERM UMR-S1124
15.30 – 16.00	<i>Coffee break</i>		
16.00 – 18.00	Epigenomics - Chairs: Stefano Gustincich and Simon Mead		
16.00 – 16.30	Invited.14 Q&A	Functional genomics of Parkinson's disease	Stefano Gustincich SISSA
16.30 – 17:00	Invited.15 Q&A	The complexity of mammalian transcription	Piero Carninci RIKEN Center for Life Science Technologies
17.00 – 17.30	Invited.16 Q&A	FANTOM5: A deep sequencing expression atlas of mammalian cell types	Alistair Forrest RIKEN Centre for Life Science Technologies
17.30 – 18.00	Invited.17 Q&A	Conservation and novel functions of non-coding RNAs	Thomas R. Gingeras Cold Spring Harbor Laboratory
20.00 – 22.00	Poster reception, even numbers		

DAY 4: Friday May 30 - Aula Magna, SISSA

Time	Presentation	Presentation title	Presenter
08.45 – 11.00	Clinical presentations – Chairs: Maurizio Pocchiari and Pierluigi Gambetti		
08.45 – 09.00	CJDISA Communiqué	A Tapestry of Hope	The CJD International Support Alliance: Florence Kranitz – USA Suzanne Solvyns – Australia Raffaella Robello – Italy Alice Anane - Israel
09.00 – 09.30	Invited.18 Q&A	Creutzfeldt-Jakob disease and blood transfusion	Robert Will National CJD Research and Surveillance Unit
09.30 – 10.00	Invited.19 Q&A	Clinical diagnosis of prion diseases	Michael D. Geschwind University of California, San Francisco
10.00 – 10.30	Invited.20 Q&A	Potentials for subtype specific diagnosis and differential diagnosis in humans	Inga Zerr Georg August University
10.30 – 11.00	Invited.21 Q&A	Stratified medicine approach in sporadic Creutzfeldt-Jakob disease greatly increases power in simulated clinical trials	Simon Mead University College London Hospitals NHS Trust
11.00 – 11.30	<i>Coffee break</i>		
11.30 – 12.45	Molecular Diagnosis - Chairs: Joaquin Castilla and Olivier Andreoletti		
11.30– 12.00	Invited.22 Q&A	In defense of parallel-in-register beta sheet structures in PrP ^{Sc} amyloids	Byron Caughey Rocky Mountain Laboratories, NIAID, NIH
12.00 – 12.15	O.23 Q&A	How to perform olfactory mucosa brushing in patients with Creutzfeldt-Jakob disease	Gianluigi Zanusso University of Verona
12.15 – 12.30	O.24 Q&A	Prion detection in urine of patients with variant Creutzfeldt-Jakob disease: an update	Fabio Moda University of Texas Houston Medical School
12.30 - 12.45	O.25 Q&A	In vitro amplification method to detect PrP ^{I^{SE}} in blood of macaques infected with vCJD	Luisa Gregori US Food and Drug Administration
12.45 – 14.00	<i>Lunch break</i>		
14.00 – 15.30	Hot Topics - Chairs: Giuseppe Legname and Claudio Soto		
14.00 – 14.20	Invited.23 Q&A	Proteinaceous infectious optimism	Sonia Vallabh and Eric Minikel Prion Alliance
14.20 – 14.40	O.26 Q&A	Prions: Synthetic A β prion strains producing distinct amyloid deposits in the brains of transgenic mice	Jan Stöhr University of California, San Francisco
14.40 – 15.00	O.27 Q&A	Physiology: Focal stimulation of hippocampal neurons with small number of PrP ^C molecules	Amin Ladan SISSA
15.00 – 15.30	Invited.24 Q&A	Transmission: Scrapie prions: an etiologic agent of sCJD in human?	Olivier Andreoletti Ecole Nationale Vétérinaire de Toulouse
15.30 – 16.00	Invited.25 Q&A	Animal Models: Transmissibility of human prion diseases	Pierluigi Gambetti Case Western Reserve University
16.00 – 16.30	<i>Coffee break</i>		
16.30 – 17.00	Eulogy to Dr. Hans A. Kretzschmar		
17.00 – 17.45	Poster Prizes and Prion 2015 announcement		
17.45 – 18.00	Closing remarks		
20.00 – 23.00	Gala dinner party		