**SCHEDULE: WEDNESDAY, MAY 22**

7:30 - 8:15  
**BREAKFAST**  
Foyer, Hall D

8:15 - 8:30  
**WELCOME**  
David Westaway, Hermann Schaetzl, Kevin Keough  
Co-Chairs, PRION 2019 Congress

8:30 - 10:10  
**STRUCTURAL BIOLOGY OF MAMMALIAN PRIONS**  
CHAIRS: D. Riesner & G. Legname  
Hall D

  8:30 - 9:10  
**Structural insights into the mechanism of mammalian prion propagation**  
Witold K. Surewicz, Case Western Reserve University, Cleveland, USA

  9:10 - 9:30  
**Full atomistic model of PrPSc structure and conversion**  
G. Spagnolli, CIBIO, University of Trento, Trento, Italy

  9:30 - 9:50  
**A shared β-solenoid structure for all PrPSc strains tested**  
H. Wille, CPPFD, University of Alberta, Edmonton, Canada

  9:50 - 10:10  
**Large-scale production of recombinant prions with high specific infectivity**  
D. Walsh, Dartmouth College, Hanover, New Hampshire, USA

10:10 - 10:30  
**REFRESHMENT BREAK/POSTER PRESENTATIONS**  
Foyer, Hall D

10:30 - 12:10  
**HUMAN DISEASE 1**  
CHAIRS: A. Rozemuller & B. Appleby  
Hall D

  10:30 - 11:10  
**Seed-induced Aβ deposition impairs adult neurogenesis in mouse models of Alzheimer’s disease**  
Melanie Meyer-Luehmann, Universitats Klinikum-Freiburg, Freiburg, Germany

  11:10 - 11:30  
**Critical impact of cofactors on transmissibility of human prions**  
J. Safar, Case Western Reserve University, Cleveland, Ohio, USA

  11:30 - 11:50  
**Investigating the clinical correlation between sCJD and other neurodegenerative pathologies**  
J. Lumsden, National CJD Research and Surveillance Unit, University of Edinburgh, Edinburgh, Scotland

  11:50 - 12:10  
**sCJD Prions Distribute throughout the Eye**  
C. Orru, Rocky Mountain Labs, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Hamilton, Montana, USA

12:10 - 12:55  
**LUNCH**  
Foyer, Hall D
SCHEDULE: WEDNESDAY, MAY 22

12:55 - 2:35  ANIMAL DISEASE 1  Hall D
CHAIRS: G. Telling & M. Zabel

12:55 - 1:35  Modifying prion spread through the CNS
Christina Sigurdson, University of California, San Diego, USA

1:35 - 1:55  Cervid Prnp polymorphism at codon 116 generates new and distinct CWD strains
S. Hannaoui, CPRU, University of Calgary, Calgary, Canada

1:55 - 2:15  Binding prions to soils impact PrP\textsuperscript{CWD} recovery but not infectivity
A. Kuznetsova, CPPFD, University of Alberta, Edmonton, Canada

2:15 - 2:35  Diversity of chronic wasting disease prion strains
C. Duque Velásquez, CPPFD, University of Alberta, Edmonton, Canada

2:35 - 2:55  REFRESHMENT BREAK/POSTER PRESENTATIONS  Foyer, Hall D

2:55 - 4:35  CELL BIOLOGY 1  Hall D
CHAIRS: C. Lasmezas & M. Horiuchi

2:55 - 3:35  Drivers of neurotoxicity in prion diseases
Adriano Aguzzi, University Hospital Zurich, Zurich, Switzerland

3:35 - 3:55  Pathological consequences of ROCK-PDK1 kinases overactivation in prion diseases
B. Schneider, Université Paris Descartes - Inserm, Paris, France

3:55 - 4:15  Human cerebral organoids propagate sporadic CJD prions
C. Haigh, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Hamilton, Montana, USA

4:15 - 4:35  How the PrP\textsuperscript{C-terminal domain regulates its toxic N-terminal domain
G. Millhauser, University of California, Santa Cruz, USA

4:40 - 5:55  PRION 2019 DEBATE: PrPC function in the brain  Hall D
CHAIR: James Hope
PARTICIPANTS: A. Aguzzi, C. Haigh, G. Millhauser, G. Schmitt-Ulms

6:00 - 8:00  POSTER PRESENTATION AND RECEPTION  Hall D
*Cash Bar
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
<th>Chair(s)</th>
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<tr>
<td>7:30 - 8:15</td>
<td><strong>BREAKFAST</strong></td>
<td>Foyer</td>
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<tr>
<td>8:15 - 8:25</td>
<td><strong>INTRODUCTORY SESSION</strong></td>
<td>Hall D</td>
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<tr>
<td>8:25 - 10:05</td>
<td><strong>OTHER PRIONS</strong></td>
<td>Hall D</td>
<td>H. True &amp; J. Ma</td>
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<tr>
<td>8:25 - 9:05</td>
<td>Targeting proteopathic seeds in Alzheimer’s disease</td>
<td></td>
<td>Mathias Jucker, U. Tübingen, Tübingen, Germany</td>
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<tr>
<td>9:05 - 9:25</td>
<td>Seeding Aβ accelerates AD-like pathology without cognitive impairment</td>
<td></td>
<td>S. G. Lacoursiere, CCBN, U. of Lethbridge, Lethbridge, Canada</td>
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<tr>
<td>9:25 - 9:45</td>
<td>Alpha-synuclein strains initiate distinct transmissible synucleinopathies</td>
<td></td>
<td>J. Watts, Tanz Centre, U. of Toronto, Toronto, Canada</td>
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<tr>
<td>9:45 - 10:05</td>
<td>Multiple sclerosis brain transmits pathology to humanized transgenic mice</td>
<td></td>
<td>S. Tsutsui, HBI, CSOM, U. of Calgary, Calgary, Canada</td>
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<tr>
<td>10:05 - 10:25</td>
<td><strong>REFRESHMENT BREAK/POSTER PRESENTATIONS</strong></td>
<td>Foyer, Hall D</td>
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<tr>
<td>10:25 - 12:05</td>
<td><strong>ANIMAL DISEASE 2</strong></td>
<td>Hall D</td>
<td>C. Mathiason &amp; M. Beekes</td>
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<tr>
<td>10:25 - 11:05</td>
<td>Prion accumulation in the Bone Marrow: the origin of Prionemia?</td>
<td></td>
<td>Olivier Andreoletti, École Nationale Vétérinaire de Toulouse, Toulouse, France</td>
</tr>
<tr>
<td>11:05 - 11:25</td>
<td>BSE discrimination and geographical variation of goat scrapie</td>
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<td>R. Nonno, ISST, Rome, Italy</td>
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<td>11:25 - 11:45</td>
<td>Prion tropism for the spleen: role of PrPC expression levels</td>
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<td>V. Béringue, VIM, INRA, Université Paris-Saclay, Jouy-en-Josas, France</td>
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<td>11:45 - 12:05</td>
<td>Rapid bioassay of mammalian prions in Drosophila</td>
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<td>R. Bujdoso, CU, Cambridge, United Kingdom</td>
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<td>11:25 - 12:05</td>
<td><strong>CJD INTERNATIONAL SUPPORT ALLIANCE AND ADVISORS</strong></td>
<td>ECC Boardroom, Hall D Foyer</td>
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<td>12:05 - 1:55</td>
<td><strong>LUNCH AND POSTER PRESENTATIONS</strong></td>
<td>Foyer, Hall D</td>
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<td></td>
<td><strong>TRAINEE/SENIOR RESEARCHER ROUNDTABLES</strong></td>
<td>Salon 2</td>
<td></td>
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**SCHEDULE: THURSDAY, MAY 23**

**1:55 - 3:55**
**THERAPEUTIC APPROACHES**
**CHAIRS:** S. Priola & K. Doh-ura

**1:55 - 2:55**
*Arguments for Alzheimer’s and Parkinson's Diseases Being Caused by Prions*
Stanley B. Prusiner, Institute for Neurodegenerative Diseases, University of California, San Francisco, USA

**2:55 - 3:15**
*Antisense oligonucleotides for the prevention of genetic prion disease*
S. Vallabh, Broad Institute of Harvard and MIT, Massachusetts, USA

**3:15 - 3:35**
*Substrate-specific manipulation of the ADAM10-mediated shedding of PrPC*
L. Linsenmeier, Institute of Neuropathology, UKE Hamburg, Germany

**3:35 - 3:55**
*Evaluating plasma tau and NfL as biomarkers for prion disease*
A. Thompson, MRC Prion Unit, University College London, London, United Kingdom

**3:55 - 4:15**
REFRESHMENT BREAK/POSTER PRESENTATIONS

**4:15 - 4:45**
**INTERNATIONAL CJD SUPPORT ALLIANCE**

**4:45 - 6:05**
**GENETICS**
**CHAIR:** R. Wickner

**4:45 - 5:25**
*Genetic risk factors for sporadic CJD: replication, expression, function*
Simon Mead, University College London, London, United Kingdom

**5:25 - 5:45**
*Familial Parkinson's point mutation abolishes multiple system atrophy prion replication*
A. Woerman, University of California, San Franciscos, California, USA

**5:45 - 6:05**
*Potential insights into avoiding amyloidosis from the functional amyloid PMEL*
T. Allison, CPPFD, University of Alberta, Edmonton, Canada

**7:00 - 10:00**
**ART GALLERY OF ALBERTA RECEPTION**
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<td><strong>INTRODUCTORY SESSION</strong></td>
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<td>8:25 - 10:05</td>
<td><strong>FOLDING AND REPLICATION OF PATHOGENIC PROTEINS</strong></td>
<td>Hall D</td>
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| 8:25 - 9:05| *A Solid-state Conceptualization of Information Transfer from Gene to Message to Protein*  
Steve McKnight, University of Texas Southwestern, Dallas, Texas, USA | Hall D |
| 9:05 - 9:25| *Purification of small, non-fibrillar and infectious prions from GSS disease*  
I. Vanni, Istituto Superiore di Sanità, Rome, Italy | Hall D |
| 9:25 - 9:45| *Seeding ability of olfactory mucosa samples from patients with synucleinopathies*  
F. Moda, Fondazione IRCCS Istituto Neurologico Carlo Besta, Milano, Italy | Hall D |
| 9:45 - 10:05| *Generation of bona fide prions by large-scale PMCA*  
F. Wang, University of Texas Health, Houston, Texas, USA | Hall D |
| 10:05 - 10:25| **REFRESHMENT BREAK/POSTER PRESENTATIONS**  
Foyer, Hall D | Hall D |
| 10:25 - 12:05| **HUMAN DISEASE 2**                          | Hall D |
| 10:25 - 11:05| *Beyond Neurofibrillary Tangles in Tauopathy*  
Karen Ashe, University of Minnesota, Minneapolis, Minnesota, USA | Hall D |
| 11:05 - 11:25| *microRNAs profiling identifies a novel signature associated with sCJD progression*  
E. Vire, Institute of Prion Diseases, University College London, United Kingdom | Hall D |
| 11:25 - 11:45| *Anti-PrPc autoantibodies in PRNP mutation carriers*  
K. Frontzek, University of Zurich, Zurich, Switzerland | Hall D |
| 11:45 - 12:05| *Diverse Tau signatures in an inbred model mimic heterogeneity in a primary Tauopathy*  
D. Westaway, CPPFD, University of Alberta, Edmonton, Canada | Hall D |
| 12:05 - 1:50| **LUNCH AND POSTER VIEWING**                 | Hall D    |
|              | **TRAINEE/SENIOR RESEARCHER ROUNDTABLES**    | Salon 2   |
## SCHEDULE: FRIDAY, MAY 24

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<tr>
<td>12:50 - 1:50</td>
<td><strong>NEUROPRION ASSOCIATION GENERAL MEETING</strong> NeuroPrion members</td>
<td>Hall D</td>
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<td>1:50 - 3:30</td>
<td><strong>CELL BIOLOGY 2</strong> CHAIRS: V. Lawson &amp; J. Braun</td>
<td>Hall D</td>
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<td>1:50 - 2:30</td>
<td>Cellular prion infection: from traffic jams to new drug targets</td>
<td>Hall D</td>
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<td>Sabine Gilch, University of Calgary, Calgary, Canada</td>
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<td>2:30 - 2:50</td>
<td>Propagation of human sCJD prions in organotypic slice culture</td>
<td>Hall D</td>
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<td>V. Sim, CPPFD, University of Alberta, Edmonton, Canada</td>
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<td>2:50 - 3:10</td>
<td>Hsp110 modifies prion infection in vitro and in vivo</td>
<td>Hall D</td>
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<td>C. Marrero-Winkens, CPRU, University of Calgary, Calgary, Canada</td>
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<td>3:10 - 3:30</td>
<td>The FXR1 Protein Is A Functional Amyloid Of Mammalian Brain</td>
<td>Hall D</td>
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<td>A. Sergeeva, St. Petersburg State University, Department of Genetics and Biotechnology, St. Petersburg, Russia</td>
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<td>3:30 - 3:50</td>
<td>REFRESHMENT BREAK/POSTER PRESENTATIONS</td>
<td>Foyer, Hall D</td>
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<td>3:50 - 4:50</td>
<td><strong>LATE BREAKING NEWS</strong> CO-CHAIRS: D. Westaway and H. Schaetzl</td>
<td>Hall D</td>
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<td>3:50 - 4:02</td>
<td>CWD in a 16-year-old moose in Sweden</td>
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<td>Maria Nóremark, National Veterinary Institute, Uppsala, Sweden</td>
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<td>4:02 - 4:14</td>
<td>Generation of chemically optimized molecules suppressing PrP toxicity</td>
<td>Hall D</td>
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<td>Emiliano Biasini, University of Trento, Trento, Italy</td>
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<td>4:14 - 4:26</td>
<td>A first glimpse of infectious recombinant PrPSc using solid state NMR</td>
<td>Hall D</td>
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<td>Jesús Requena, University of Santiago de Compostela, Spain</td>
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<td>4:26 - 4:38</td>
<td>Nascent β-structure in the hydrophobic region of a GSS PrP allele</td>
<td>Hall D</td>
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<td>Z.-L. Fu, University of Alberta, Edmonton, Canada</td>
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<td>4:38 - 4:50</td>
<td>Covalently-linked PrP fragments in two major GSS variants</td>
<td>Hall D</td>
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<td>Laura Cracco, Case Western Reserve University, Cleveland, USA</td>
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<td>4:50 - 5:20</td>
<td><strong>AWARDS, PRION 2020 ANNOUNCEMENT AND CLOSING REMARKS</strong></td>
<td>Hall D</td>
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