Prion|2022

13-16 September
Göttingen, Germany

Program

@prion_2022

PROGRAM AT A GLANCE

Tuesday 13.09.22 Morning (Workshop)

- Animal prion diseases: Emerging Prion Diseases Surveillance, Detection, Pathogenesis

- Structural biology of protein misfolding diseases

Tuesday 13.09.22 Afternoon (Workshop)

- Neuropathology and clinicopathological correlation of human prion diseases and related dementias

- Bio-marker/Human diseases

Wednesday 14.09.22

Session 1	Protein Structure– Function, Conversion, Dysfunction
Session 2	Pathogenic mechanisms in tauopathies
Session 3	Pathogenic mechanisms in synucleinopathies
Session 4	Pathogenic mechanisms in tauopathies

Thursday 15.09.22

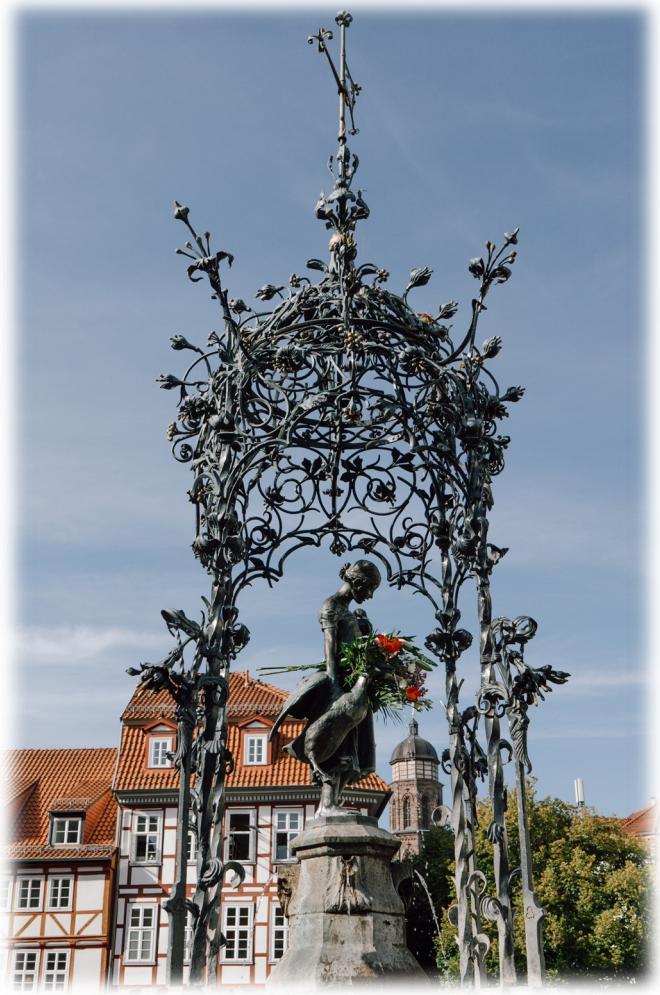
Session 5	Structural biology of prions
Session 6	Novel molecular mechanisms in prion diseases
Session 7	Pathogenic mechanisms in ß Amyloidosis
Session 8	Function, dysfunction and conversion: from strains to transmission

Friday 16.09.22

Session 9	The interplay between Abeta and prion
Session 10A	CJD International Support Alliance
Session 10B	Genetic Prion Diseases
Session 11A	Therapeutic perspectives in prion diseases
Session 11B	Animal Diseases
Session 12	Hot topics/breaking news/controversies

Welcome from the Prion 2022

We would like to welcome you to Göttingen, the City of Science!



On behalf of the Organizing Committee, we are grateful that you are here with us and we are excited to share the beauty of our hometown.

We are looking forward to have a great time next to great scientists from all over the world and sharing update and fascinating results.

Local Organizers

Timothy Bunck, Sezgi Canaslan, Kathrin Dittmar, Jolanthe Ehrlich,

Oliver Eickhoff, Leticia Fernandez, Anna Fischer, Stefan Goebel,

Peter Hermann, Iris Köster, Tiago Outeiro, Daniela Proto, Tayyaba Saleem,

Matthias Schmitz, Maja Schneider-Dominco, Astrid Schlung, Julia Schütte,

Malena Wenzel, Neelam Younas & Inga Zerr

NRZ NATIONALES REFERENZZENTRUM
für die Surveillance
Transmissibler Spongiformer
Enzephalopathien

VENUE MAP

Central lecture hall/Zentrales Hörsaalgebäude (ZHG)

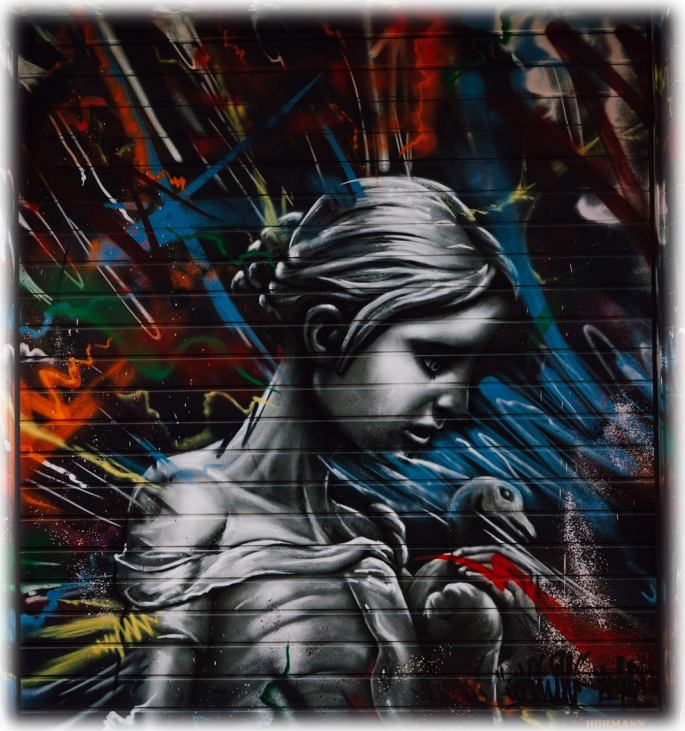
Lunch area

PRESENTER INFORMATION

Oral Presenters

Please submit your presentation in pptx format the day before your talk to:

dproto@gwdg.de



Poster Presenters

The poster size should be 90 cm (width) x 120 cm (heigh). Fixing material will be available on site. **All posters will be displayed during the total duration of the meeting.**

All posters will be grouped by themes as indicated on your submissions. Please check the conference website for the locations assigned to your poster.

There will be a poster party on Thursday, 15th September 2022 with buffet and drinks available. You are requested to attend this event and present your work.

Best posters will be selected for a Poster Prize, which will be awarded at the end of the conference. Each conference participant will have 1 vote. Please bear in mind that a vote cannot be given for a poster from the own lab.

GENERAL INFORMATION

Registration Desk

The registration desk will be open on Tuesday 13th from 8:00 am to 16:00 pm

Please be on time.

Name Badge Policy

Wearing the name badge is mandatory during the conference sessions and the meals.

Meals

Coffee break will be held at the Central lecture hall. You will receive tickets for the Lunch at the Zentral Mensa. They also offer vegetarians and vegan options.

Abstracts

Abstracts will be published in the lastest issue from Prion. You can access the journal link scaning the QR code.

DOI: 10.1080/19336896.2022.2091286

Certificate of Attendance

The certificate of attendance will be provided at the moment of the registration.

W-LAN

All participants can get individual access for Wifi at the registration desk.

During talks

Covid-19

Due to Covid-19 Pandemic we would like to remind you that the following rules applies inside buildings:

- Keep a distance of at least 1 meter from others.
- We highly reccomend wearing a FFP2 mask.

In case you feel sick (fever, cough, breath difficult) we ask you to stay at your accommodation and contact one of the members of the Local Committee.

Recording and Photography

It is forbidden to record the talks of our colleagues. We will share official photos at later stages.

Mobile Phones

We kindly ask you to mute your cellphone during the talks.

Smoking

Smoking inside the University buildings is forbidden.

Social Activities at the Central lecture hall

Poster Party and the Art Calling Science will be held on Thursday, 15th September at 18:00 h.

Buffet and drinks will be also available.

Places to visit

- Johanniskirche
- Deutsches Theater
- Universitätsaula am Wilhelmsplatz
- Altes Rathaus and the Gänseliesel
- Kiessee
- Alter Botanischer Garten
- Forum Wissen

Emergencies

Fire department, rescue service: **112**

Police emergency calls, traffic accidents, assault: **110**

Workshop 1

Animal prion diseases: Emerging Prion Diseases Surveillance, Detection, Pathogenesis

The focus of this workshop will be ongoing studies and findings that enhance our understanding about the emergence and transmission of animal prion diseases. Special emphasis will be placed on short oral talks from early career, students and technicians.

Tuesday 13.09.22 Lecture Hall 103

09:00 h	**Welcome**	
09:10 h	S. Benestad	Norwegian Veterinary Institute, Emerging CWD strains in Europe, overall view of current/emerging situation
09:35 h	G. Telling	A diverse spectrum of novel strains among Nordic cervids with chronic wasting disease
09:55 h	D. Walter	Strain Types of Chronic Wasting Disease and Efforts Towards a Virtual Tissue Repository
10:15 h	A. Huor	ARR/ARR genotype sheep show no resistance to ovine adapted c-BSE infection by the oral route
10:35 h	Coffee Break	
11:00 h	C. Mathiason	Colorado State University, Seeking biological relevance of CWD maternal infections and transmission from dam to offspring
11:25 h	F. Houston	Subclinical infection in sheep exposed to low doses of prions by blood transfusion
11:45 h	E. Vidal	Bona fide spontaneous and atypical scrapie faitfully reproduced through the expression of a polymorphic variant of ovine prion protein
12: 25 h	Concluding remarks	

Workshop 2

Structural biology of protein misfolding diseases

Recent advances in cryo electron microscopy and other techniques have given us detailed insights into the structures of amyloid fibrils that were either isolated from diseased brains or generated *in-vitro*. The question, which of these structures represent the biologically active form, can be difficult to answer.

In this workshop, we will discuss the latest technical approaches to analyze the structures of amyloid fibrils and other misfolded proteins. We welcome contributions describing structural analyses at low and high resolutions, as well as studies that investigate the question of biological activity.

Special emphasis will be given to short oral presentations by trainees (all levels) to encourage young structural biologists in their quest to analyze the structures of amyloid fibrils and other protein aggregates.

Tuesday 13.09.22 Lecture Hall 104

09:00 h	**Welcome**	
09:05 h	A. Kraus	TBD Prion structure
9:35 h	M. Zweckstetter	Tau – a key target to treat Alzheimer's disease
10:05 h	M. Rigoli	Computational Paradigms to Study Prion Folding & Misfolding
10:20 h	H. Eraña	Understanding the key features of the spontaneous formation of bona fide recombinant prions through a new method allowing their consistent generation within hours
10:35 h	Coffee Break	
10:55 h	V. Rathod	*In-vitro* refolding of the 7 kDa A117V GSS peptide
11:10 h	F. Wang	Faithful propagation of prion strain-specific conformation to recombinant protein
11:25 h	H. Rezai	Strain determinant minimal substructure revealed by dissociation of PrP^{Sc} assemblies
11:40 h	M. Rayner	Prion propagation is dependent upon key N-terminal amino acids within the prion protein
11:55 h	H. Wille	Infectious prions – are they all PIRIBS structures now?
12: 25 h	Concluding remarks	

Workshop 3

Neuropathology and clinicopathological correlation of human prion diseases and related dementias

Several dementias are characterized by aggregation of abnormally folded conformers of host encoded proteins. In prion diseases and related dementias, seeded aggregation can lead to the spread of protein aggregates throughout the brain.

In this workshop, we will focus on neuropathology, selective cellular and regional vulnerability, and clinicopathological correlation not only in Creutzfeldt-Jakob disease but also in Parkinson's and Alzheimer's disease. Besides lectures by prominent experts in the field such as Ellen Gelpi, Piero Parchi and Markus Glatzel there will be room for case discussions and hands-on neuropathology aining in this exciting field of science.

****Different venue: Universitätsmedizin Göttingen (UMG), Robert Koch Str.40, 37075 Göttingen, Room 01.E1.257 – DIPS3****

Tuesday 13.09.22

14:00 h	M. Glatzel	Welcome/ Introduction into the concept of this workshop
14:05 h	P. Parchi	Histopathological and molecular variability in Creutzfeldt-Jakob disease: the effect of prion strain, host genotype, and disease etiology
14:30 h	E. Gelpi	alpha-synuclein neuroanatomical distribution in Parkinson's disease
14:55 h	M. Glatzel	Beta-amyloid and prion protein interactions and what this means for Creutzfeldt-Jakob and Alzheimers disease Computational Paradigms to Study Prion Folding & Misfolding
15:15 h	Coffee Break	
15:30 h	Ellen Gelpi, Markus Glatzel and Piero Parchi	Case discussion and hands-on neuropathology training . These cases will cover the topics of COVID-19 and sCJD.
16:45h	M. Glatzel	Summary and feedback

Workshop 4

Bio-marker/Human diseases

The focus of this workshop will be ongoing studies on developments of seeding aggregation assays in neurodegenerative diseases. Special attention will be paid to clinical studies and improvement for early detection in various biological fluids and tissues in humans.

Tuesday 13.09.22 Lecture Hall 104

14:00 h	**Welcome**	
14:00 h	A. Green	SAA for alpha-synuclein
14:20 h	G. Zanusso	Human Prion diseases diagnosis by RT-QuIC
14:40 h	I.Zerr/M. Schmitz	Seeding conversion variability of misfolded tau conformers in classical and rapidly progressive Alzheimer's disease
15:00h	R. Sánchez-Valle	Quantitative 14-3-3 protein and prion RT-QuIC concordance analysis of patients with suspected prion diseases in Spain
15:15 h	N. Omer	Cerebrospinal fluid (CSF) and Plasma Biomarkers in patients with genetic Creutzfeldt-Jakob disease (gCJD) and healthy relatives, carriers of the E200K mutation: Results from an ongoing longitudinal study.
15:30 h	N. Younas	Early preclinical proteomic signatures of prion infection
15:45 h	Coffee Break	
16:15 h	C. N. Kraft	Nasal swab detection of prion shedding in CWD-infected white-tailed
16:30 h	C. M. Thomas	Comparison of in vitro tests (PMCA and RT-QuIC) and bioassay for longitudinal prion detection in preclinical blood samples from BSE infected sheep
16:45 h	D.F. Browne	Hypochlorous acid solutions reduce disease-associated tau seeding activity
17:00 h	S. Galušková	Evaluation of the seeding activity of alpha-synuclein in brain and cerebrospinal fluid tissue samples
17:15 h	L. Concha	Semi-quantitative αS-SAA detects no difference in αSyn seeds in CSF from prodromal to phenocon- version in longitudinal samples
17:30 h	M. Rossi	Towards an improved 'quantitative' α-synuclein Real-Time Quaking-Induced Conversion assay to assess Lewy body pathology in vivo
17:45 h	O. Bannach	Combination of seeded aggregation and sFIDA for diagnostics of neurodegenerative diseases

SCHEDULE

Wednesday 14.09.22

Lecture Hall 011

08:45 h	Welcome and introduction
Session 1	**Protein Structure– Function, Conversion, Dysfunction** *Chairs: D. Riesner/N. Lopez-Lorenzo*
09:00 h	**B. Caughey:** Prion structures (*Keynote*)
09:45 h	**E. Artikis:** Understanding the Conformational Dynamics of Infectious Prion Fibrils
10:00 h	**S. Manka:** A pipeline for atomic structure determination of infectious ex vivo prion fibrils by cryo-EM
10:15 h	**Y. Chernoff:** Yeast models for studying aggregation of proteins, involved in Alzheimer's disease
10: 30 h	**Coffee break**
Session 2	**Pathogenic mechanisms in tauopathies** *Chairs: M. Jucker/S. Krasemann*
11:00 h	**K. Duff**: Mechanisms for the spread of tauopathies in AD and FTD (*Keynote*)
11:45 h	**R. Chiesa:** Inoculation of human traumatic brain injury tissue homogenates induces cognitive deficits and widespread tau pathology in wild-type mice
12:00 h	**A. Kraus**: Tau seeds precede earliest Alzheimer's changes and are prevalent in synucleinopathies and other neurodegenerative diseases
12:15 h	**Lunch**
Session 3	**Pathogenic mechanisms in synucleinopathies** *Chairs: T. Outeiro/G. Zanusso*
14:00 h	**A. L. Woermann**: Alpha-synuclein prions in multiple system atrophy (*Keynote*)
14:45 h	**J. Ayers**: Different Alpha-Synuclein Prion Strains Cause Dementia with Lewy Bodies and Multiple System Atrophy
15:00 h	**Ch. Orru:** Performance of alpha-synuclein RT-QUIC in relation to neuropathological staging of Lewy body disease
15:15 h	**L. Blömeke:** Quantitative Detection of α-Synuclein and Tau Oligomers and other Aggregates by Digital Single Particle Counting
15:30 h	**Coffee break**
Session 4	**Pathogenic mechanisms in tauopathies** *Chairs: M. Glatzel/I. Zerr*
16:00 h	**O Andréoletti** E200K CJD: a „model" for studying sCJD?
16:45 h	**E. Comoy**: Non-human primates: a renewed gold standard for prion(-like) diseases?
17:00 h	**A. Nihat:** A dividing cell model for stable propagation and curing of bona fide human sporadic Creutzfeldt-Jakob Disease prions
17:15 h	**D. Bougard** Correlation between bioassay and PMCA for human prion decontamination studies
	Special Lecture
17:30 h	**P. Liberski** Kuru -where all the prion research began

SCHEDULE

Thursday 15.09.22

Lecture Hall 011

Session 5	**Structural biology of prions** *Chairs: H. Wille/H. Altmeppen*	
09:00 h	**J. R. Requena/ R. Riek**: Structure-Activity Relationship of Amyloids (*Keynote*)	
09:45 h	**G. Jackson**: Synthetic prions with high specific infectivity generated from recombinant PrP	
10:00 h	**V. Beringue**: Efficient propagation and strain diversity of prions from pure synthetic origin	
10:15 h	**J. Bieschke**: Direct Observation of Prion Protein Fibril Elongation Kinetics Reveals Competing Fibril Populations with Distinct Strain-like Structural and Dynamic Properties	
10: 30 h	**Coffee break**	
Session 6	**Novel molecular mechanisms in prion diseases** *Chairs: R. Chiesa/ I.Vorberg*	
11:00 h	**A. Aguzzi:** Genome-wide perturbations in prion science (*Keynote*)	
11:45 h	**S. Mead**: Genome wide association study of clinical duration and age at onset of sporadic CJD	
12:00 h	**J. Tatzelt**: Liquid-liquid phase separation of the prion protein promotes the formation of neurotoxic aggregates; a critical role of the N-terminal domain	
12:15 h	**J.M. Ribes**: Prion protein converts at two distinct cellular sites and precedes fibril formation	
12:30 h	**Lunch**	

SCHEDULE

Thursday 15.09.22

Lecture Hall 011

Session 7 **Pathogenic mechanisms in ß Amyloidosis**

Chairs: C. Lasmezas and T. Sklaviadis

14:00 h **L. Walker**: The prion paradigm, Abeta, and Alzheimer's disease (*Keynote*)

14:45 h **R. Gomez-Gutierrez**: Structure-defined Aβ polymorphs promote different pathological changes in susceptible mice.

15:00 h **C. Korth**: Abeta dimers are antiprions that interfere with seeded nucleation in vitro and in vivo

15:15 h **M. Shafiq:** Extracellular vesicles in the pathophysiology of Alzheimer's disease: understanding the role of the prion protein

15:30 h **Coffee break**

Session 8 **Function, dysfunction and conversion: from strains to transmission**

Chairs: J. Torres/A. Ruiz-Riquelme

16:00 h **J. Collinge**: Understanding prion structure, strains and neurotoxicity (*Keynote*)

16:45 h **M. Arifin**: Heterozygosity at cervid Prnp codon 138 progressively blocks prion conversion in vitro and partly confines prion propagation to the periphery in knock-in mice

17:00 h **E. Cassmann**: The chronic wasting disease agent from white-tailed deer is infectious to humanized mice after passage through raccoons

17:15 h **H. Schaetzl**: Transmission of prion infectivity from CWD-infected macaque tissues to rodent models demonstrates the zoonotic potential of chronic wasting disease.

Special Lecture by Industry

17:30 h **P. Perin (Quanterix)**: Simoa Technology for Ultrasensitive Biomarker Detection

18:00 h **Poster Party + Art Calling Science**

Quanterix™

SCHEDULE

Friday 16.09.22

Lecture Hall 011

Session 9	**The interplay between Abeta and prion** *Chairs: J. Requena/D. Bougard*
9:00 h	**SM. Strittmacher**: Amyloid-ß Interaction with Cellular Prion Protein in Alzheimer's Disease (*Keynote*)
9:45 h	**G. Merz**: Cryo-EM reveals small-molecule binding to the paired helical fillament conformation of tau prions from Alzheimer's disease
10:00 h	**S. Liu**: De-repression of endogenous retroviruses promotes prion-like spreading of proteopathic seeds
10: 15 h	**Coffee break**
Session 10A	**CJD International Support Alliance** *Chairs: B. Appleby/P. Hermann*
11:00 h	**S. Solvyns:** (CJDISA) (*Keynote*)
11:30 h	**J. & R. Backer** CJK-Initiative, Germany BD
11:45 h	**J. Castilla** Spanish Foundation for prion diseases
Session 10B	**Genetic Prion Diseases** *Chairs: B. Appleby/P. Hermann*
12:00 h	**N. Majbour** Defining the onset of prion infection and neurodegeneration in healthy individuals at risk of prion disease
12:15 h	**A. Anane:** Biobank of genetic CJD at Israel
12:30 h	**Lunch**

SCHEDULE

Friday 16.09.22

Session 11A **Therapeutic perspectives in prion diseases** **Lecture Hall 011**

Chairs: P. Cras/J. Castilla

13:45 h	**H. Zhao**: ASO-mediated PrP suppression as disease modifying therapy for prion disease
14:00 h	**V. Bonaldo** Folding intermediates of the cellular PrP across disease and therapy
14:15 h	**S. Krasemann:** mGluR5 inhibition delays cognitive decline and incubation time in a mouse model of prion disease
14:30 h	**B. Zeitler:** Engineered zinc finger protein transcription factors potently reduce brain PrP expression and extend survival in prion-infected mice
14:45 h	**K. Xanthopoulos** Evaluation of the therapeutic action of poly(propylen Imine) glycodendrimers in prion disease mouse model
15:00 h	**R. Mercer:** Two pronged pharmacological interventions for prion disease targeting propagation and toxicity
15:15 h	**M. Fleming**: Optimizing prion vaccination in a transgenic mouse model of Gerstmann-Sträussler-Scheinker disease
15:30 h	**Coffee break**

Session 11B **Animal Diseases** **Lecture Hall 010**

Chairs: H. Schaetzl and C. Mathiason

13:45 h	**S. Canoyra**: Conformational shift at the evolutionary mechanism for classical BSE emergence from atypical scrapie
14:00 h	**G. Telling**: Divergent strain profiles of European and North American CWD
14:15 h	**R. Morales**: Nasal bot: an emerging vector for natural chronic wasting disease transmission
14:30 h	**N. Denkers**: Shedding of Chronic Wasting Disease Prions in Multiple Excreta Throughout Disease Course in White-tailed Deer
14:45 h	**R. Bujdoso:** A new bioassay for the sensitive detection of blood-borne CWD prions
15:00 h	**J. Greenlee**: Cattle with the EK211 *PRNP* polymorphism are susceptible to the H-type bovine spongiform encephalopathy agent from either E211K or wild type donors after oronasal inoculation
15:30 h	**Coffee break**

Session 12 **Hot topics/breaking news/controversies** **Lecture Hall 011**

Chairs: Chr. Orru/E. Gelpi

16:00 h	**S. Hannaoui** Transmission of Cervid Prions to Humanized Mice Demonstrates the Zoonotic Potencial of CWD **Z**
16:15 h	**W. Q. Zou** Generation of human chronic wasting diseases in transgenic mice
16:30 h	**A. Castle** Beta-endoproteolysis of the cellular prion protein by dipeptidyl peptidase-4 and fibroblast activation protein
16:45 h	**G Jansen** Neuropathology of 8 patients of the New Brunswick cluster of Neurological Syndrome of Unknown Cause; human Chronic Wasting Disease or blue-green algae?
17:00 h	**C. Lasmezas** A novel neuroprotective approach for protein misfolding neurodegenerative diseases
17:15 h	**Poster award**
17:30 h	**Prion 2023/End of the meeting**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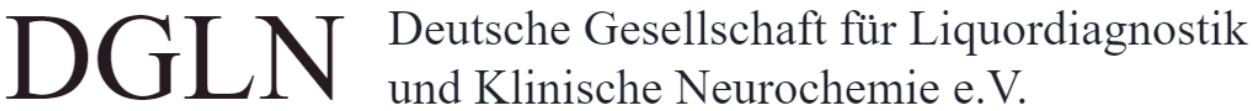
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und Klinische Neurochemie e.V.


GEMEINNÜTZIGE
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A. Ruiz-Riquelme

H. Schätzl

M. Schmitz

H. Wille

G. Zanusso

I. Zerr

Poster List

Structure biology

1.1. Kraus, A. *High resolution structures of infectious mammalian prions reveal a common prion fold*

1.2. López Lorenzo, N. *A non-PrP^{Sc} PrP prion*

1.3. Lyudmyla, D. *In silico study of drugs docking against cellular, mutated and scrapie forms of prion protein*

1.4. Rathod, V. *Specific labeling of native PrP^{Sc} in RML-infected CAD5 cells using a single-chain fluobody*

1.5. Rathod, V. *In-vitro refolding of the 7kDa A117V GSS peptide*

1.6. Roseman, G. *The Expression and Purification of GPI Anchored and Glycosylated PrP^{C} for Use in Structural Studies*

1.7. Stepanova, M. *Structure and dynamics of alpha-sunuclein interaction with fibrillary seeds*

1.8. Zhang, Q. *Chemical Synthesis of Prion Protein*

Pathogenesis/mechanisms of neurodegeneration

2.1. Altmeppen, H.C. *The ADAM10-mediated shedding of human PrP: Cleavage site identification, antibody characterization, (patho)physiological insight and some peculiarities*

2.2. Balkema-Buschmann, A. *BSE pathogenesis in the ileal Peyer's patches and the central and peripheral nervous system of young cattle 8 months post oral BSE challenge*

2.3. Bauer, S. *Translational profiling of neuronal subtypes in pre-symptomatic fatal familial insomnia mice reveals TOR signaling in somatostatin-expressing neurons*

2.4. Benilova, I. *A multiparametric imaging-based cellular assay sensitive to the toxicity of prion-infected brain tissue demonstrates that purified highly infectious scrapie prions are not directly neurotoxic*

2.5. Bizet, N. *Identifying promising therapeutics drugs entering the brain for genetic prion diseases in C. elegans.*

2.6. Block, A. *Mechanisms of adaptation of synthetic prions in hamsters*

2.7. Chang, S.C. *PrP^{Sc} aggregation state does not affect efficiency of peripheral infection in two CWD strains*

2.8. Cherry, P. *Loss of Rab7 activation leads to the impairments in cholesterol metabolism in prion infection*

2.9. Dafou, D. *Investigation of the role of RNA editing in immunoregulation in Creutzfeldt – Jakob disease pathogenesis*

2.10. Foliaki, S. *Fatal Familial Insomnia in a cerebral organoid model*

2.11. Gabizon. R. *Granagard as an anti-aging and neuroprotective agent in animals and humans suffering from neurological diseases*

2.12. Groveman, B. *Prion Disease in Human Cerebral Organoids*

2.13. Hay, A. *Adipose-Derived Mesenchymal Stromal Cells Decrease Prion-Induced Glial Inflammation*

2.14. Jackson, W. *Cell type-specific translatome signatures in pre-onset prion disease mice*

2.15. Jang, B. *Citrullinated GAPDH and vimentin in the pathology of prion diseases*

2.16. Kincaid, A. *Mast Cells in Human Carotid Bodies Express PrP^{C}*

2.17. Koshy, S. *Fast Axonal Transport of PrP^{Sc}*

2.18. Krasemann, S. *mGluR5 inhibition delays cognitive decline and incubation time in a mouse model for prion disease, but only if applied before onset of symptoms*

2.19. Lavigna, G. *Doxycycline rescues recognition memory and circadian motor rhythmicity but does not prevent terminal disease in fatal familial insomnia mice*

2.20. Mead, S/Hill, E. *Knockout Mice for the Sporadic CJD Risk Gene STX6 are Overtly Healthy, but have Extended Incubation Times to Mouse Prions*

2.21. Otero, A. *Identification of biomarkers associated with endoplasmic reticulum stress and proteasome impairment in natural scrapie*

2.22. Pal, R. *Innate immune tolerance in microglia does not impact on CNS prion disease*

Poster List

Pathogenesis/mechanisms of neurodegeneration

2.23. Park, S.J. *Calcium-dependent serine-threonine phosphatase and calcineurin inactivation mediated by baicalein attenuates prion protein-mediated neuronal cell damage*

2.24. Schneider, B. *Loss of prion protein control of glucose metabolism contributes to neurodegeneration: dichloroacetate as a promising medicine to treat Creutzfeldt-Jakob disease.*

2.25. Sklaviadis, T. *RNA Editing in Neurodegenerative Disorders*

2.26. Slota, J. *Single cell transcriptional profiling of the cortex and hippocampus from mice infected with RML scrapie*

2.27. Striebel, J. *Mechanisms of prion-induced damage in retina: Roles of microglia and sites of PrP^{Sc} deposition*

2.28. Wang, Y. *Loss of homeostatic microglia in prion diseases*.

2.29. Zattoni, M. *Serpins in prion diseases*

Protein biology- function, conversion, dysfunction

3.1. Arshad, H. *Cellular Model of Cross Species Prion Infection Utilizing Bank Vole PrP*

3.2. Berretta, A. *Formation and localization of disease-associated PrP aggregates in primary neuronal and glial culture systems*

3.3. Bolakhrif, N. *Expression and characterization of the human full-length prion protein in Leishmania tarentolae*

3.4. Halim, H.A. *Infection of Neuronal Cells by extracellular PrP fibrils*

3.5. Innocenti, N. *Chemical Optimization of Cellular Prion Protein Degraders*

3.6. Jack, K. *The fidelity of prion templating in vitro depends on the identity of the prion strain*

3.7. Kachkin, D. *RAD51 demonstrates amyloid properties in vivo and in vitro*

3.8. Karner, D. *Immunological role of cellular prion protein (PrP^{C}) during cytomegaloviral infection*

3.9. Karpuj, M. *The combinatorial effect of chronic drug intake and microgravity on Amyloid formation*

3.10. Lawson, V. *Modulation of PrP^{C} expression affects cancer progression in vivo.*

3.11. Masone, A. *Generation and characterization of a PrP-HaloTag chimera to study the cellular trafficking and metabolism of PrP*

3.12. Masone, A. *A tetracationic porphyrin with dual anti-prion activity*

3.13. Matamoros Angles, A. *Behavioral deficits, learning impairment, and enhanced hippocampal excitability in co-isogenic PrnpZH3/ZH3 mice*

3.14. Mohammadi, B. *Fighting prion diseases with released PrP (fragments): transgenic overexpression of N1(Fc) prolongs incubation time in RML-infected mice*

3.15. Moško, T. *Photodynamic inactivation of prions reduces infectivity in mouse bioassay but not seeding activity in RT-QuIC.*

3.16. Nyström, S. *Amyloidogenesis of SARS-COV-2 Spike protein cause impaired fibrinolysis in vitro*

3.17. Puig, B. *A role for PrP^{C} in the cellular uptake of extracellular vesicles*

3.18. Sampedro-Torres-Quevedo, C. *Revisiting phylogeny within the class Mammalia using the prion protein sequence from hundreds of species*

3.19. Sandberg, M.K. *Strain interference in brain from FVB mice exposed to ME7 and RML prions.*

3.20. Sellitto, S. *Investigate the genetic and molecular landscape of the hnRNP K cellular essentiality by performing unbiased CRISPR screens*

3.21. Soukup, J. *Large and small extracellular vesicles differ in the level of prion associated infectivity in cell culture*

3.22. Trevisan, C. *Arrayed CRISPR activation screen of the human transcription factors to identify modifiers of prion protein PrP^{C}*

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3.26. Willows, S. *PrP shedding from mast cells is dependent upon proteases released during degranulation*

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4.2. Andreoletti, O. *ARR/ARR genotype sheep show no resistance to ovine adapted c-BSE infection by the oral route*

4.3. Andreoletti, O. *Prion infectivity accumulation in CJD patients peripheral tissues and its implication for public health*

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4.5. Astashonok, A. *Pathomorhological analysis and atomic force microscopy examination of infectious prion protein, isolated from the brain with Creutzfeldt-Jakob disease*

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5.8. Bravo-Risi, F. Detection of CWD prion in feces of naturally infected, pre-symptomatic, North American white-tailed deer.

5.9. Bravo-Risi, F. Protein misfolding cyclic amplification (PMCA) as an ultra-sensitive technique for the screening of CWD prions in different sample types.

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5.52. Pereira, J. *Determining prion protein gene (PRNP) genetic variability in portuguese cervidae population. An important task in chronic wasting disease (CWD) risk assessment projet in Portugal.*

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5.64. Telling, G. *A diverse spectrum of novel strains among Nordic cervids with chronic wasting disease.*

5.65. Thomas, C. *Comparison of in vitro tests (PMCA and RT-QuIC) and bioassay for longitudinal prion detection in preclinical blood samples from BSE infected sheep.*

5.66. Thorgeirsdottir, S. *Widespread search for potentially protective prion protein variants in the Icelandic sheep population delivers promising results.*

5.67. Torres J.M. / Canoyra S. *Conformational shift as the evolutionary mechanism for classical BSE emergence from atypical scrapie*

5.68. Vidal Barba, E. *ATYPRION project: assessing the zoonotic potential of interspecies transmission of CWD isolates to livestock (preliminary results).*

5.69. Waqas, T. *Successful Oral Transmission of Atypical BSE in Cattle*

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6.4. Pritzkow, S. *Application of PMCA to understand CWD prion strains, species barrier and zoonotic potential*

6.3. Ribeiro, L. *Titanium dioxide and carbon black nanoparticles disrupt neuronal homeostasis via excessive activation of PrP^C signaling*

6.4. Ruiz Riquelme, A.I. *AMYSEEDS: TARGETING AMYLOID BETA SEEDS AT THE INITIAL STAGE OF ALZHEIMER'S DISEASE*

6.5. Shafiq, M. *Extracellular vesicles in the pathophysiology of Alzheimer's disease: understanding the role of the prion protein*

6.6. Willbold, D. *Ex vivo target engagement of the Abeta oligomer disassembling compound RD2 in patient derived brain homogenates*

6.7. Zafar, S. *Prion-like characteristics of Amyloid-β deriving clinical variants of Alzheimer's disease*

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7.3. Hoyer, W. *Clustering of human prion protein and α-synuclein oligomers requires the prion protein N-terminus*

7.4. Milovanovic, D. *alpha-Synuclein as a surfactant of synaptic condensates*

7.5. Sevenich, M. *Stabilization of monomeric α-synuclein by all-D-enantiomeric peptide ligands as therapeutic strategy for Parkinson's disease and other synucleinopathies*

7.6. Xylaki, M. *Pathological alpha-synuclein profiling in nasal specimens of patients with Parkinson's disease*

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9.3. Cécile, V. *New Anti-prion compounds able to reduce the pathologic aggregation of alpha-synuclein and PABPN1 and to lessen ER stress*

9.4. Korth, C. *Aggregation and misassembly of the Disrupted-in-schizophrenia 1 (DISC1) protein defines a subset of patients with schizophrenia and recurrent affective disorders*

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9.6. Panning Pearce, M. *Phagocytic glia mediate prion-like spreading of mutant huntingtin aggregates in Drosophila brains*

9.7. Sharma, N. *Compilation of Research on Prion therapeutics*

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