



# UBIQUITIN & FRIENDS SYMPOSIUM

2-3 May 2024, Vienna

Van Swieten Saal



**TARGETED  
PROTEIN  
DEGRADATION**

**FWF** Austrian  
Science Fund

## Organizers

organized by the SFB

# TARGETED PROTEIN DEGRADATION

**FWF** Österreichischer  
Wissenschaftsfonds

### Organizing Institution

Consortium of the SFB F79 “Targeted Protein Degradation”,  
Lead institution: University of Vienna

### Conference Coordinators

Sascha Martens, Zahra Ayatollahi (University of Vienna) and members of the SFB F79

### Student/PostDoc Organizing Committee

Alibek Abdrakhmanov, Bernd Bauer, Lillie Bell, Victoria Faas, Anastasia Okun,  
Caroline Schätz

### With special thanks to

Philipp Dexheimer for designing the 2024 Poster and Symposium graphics, and to the  
IMP Graphics department for printing the posters and booklets.

Contact: [ubiandfriends-symposium@maxperutzlabs.ac.at](mailto:ubiandfriends-symposium@maxperutzlabs.ac.at)

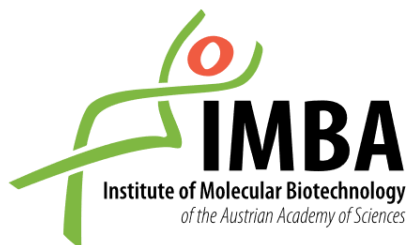
Homepage: [www.protein-degradation.org/symposium](http://www.protein-degradation.org/symposium)

Twitter / X: @SFB\_TPDvienna

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Symposium hashtag: #ubfriends2024

## Sponsors



# Program

## THURSDAY, 2 MAY 2024

- 08:00-09:00 Registration and poster setup  
09:00-09:05 Welcome & Opening remarks (by Sascha Martens)

### SESSION 1 Quality control in cellular compartments

(chaired by: Silvia Ramundo)

- 09:05-09:35 **Elvan Böke** (CRG, Barcelona)  
Evading ageing: Mitochondrial and proteostatic adaptations in oocytes
- 09:35-09:50 **Greta Bernardo** (University of Padova)  
USP14 inhibition enhances Parkin-independent mitophagy in iNeurons
- 09:50-10:20 **Yogesh Kulathu** (MRC PPU, University of Dundee)  
Regulation of ER homeostasis by UFMylation
- 10:20-10:35 **João Diamantino** (University of Duisburg-Essen)  
Protein homeostasis mechanisms at the Golgi apparatus
- 10:35-11:05 Coffee break
- 11:05-11:20 **Dávid Hargitai** (Eötvös Loránd University, Budapest)  
Tethering deadlock: A novel cellular event jamming vesicular pathways
- 11:20-11:35 **Rudolf Pisa** (Harvard Medical School, Boston)  
Through thick and thin: How a thin membrane drives substrate selection during ER-Associated Degradation
- 11:35-12:10 **Flash talks 1** – odd poster numbers
- 12:10-13:50 **Lunch with poster session 1** (odd numbers)
- 13:50-14:00 Group photo

### SESSION 2 Degradation of protein aggregates

(chaired by: Elif Karagöz)

- 14:00-14:30 **Rubén Fernández-Busnadiego** (University Medical Center Göttingen)  
Unravelling the structure of toxic protein aggregates in situ
- 14:30-14:45 **Cole Sitron** (Max Planck Institute of Biochemistry, Martinsried)  
 $\alpha$ -synuclein aggregation enhances proteopathic seeding by disrupting ESCRT-III function

- 14:45-15:00 **Maria Gierisch** (Karolinska Institute, Stockholm)  
Stimulating degradation of neurodegeneration-associated proteins
- 15:00-15:30 **Konstanze Winklhofer** (Ruhr University Bochum)  
Linear ubiquitylation at the interface between protein quality control and innate immune signaling
- 15:30-16:00 Coffee break
- 16:00-16:15 **Luca Ferrari** (Max Perutz Labs, Vienna)  
Tau fibrils evade autophagy by excessive p62 coating and TAX1BP1 exclusion
- 16:15-16:30 **Alexander Buchberger** (University of Würzburg)  
p97/VCP is required for piecemeal autophagy of aggresomes
- 16:30-16:45 **Stefan Müller** (Goethe University Frankfurt)  
Proximity-induced functionalization of PML shields TDP-43 from stress-mediated aggregation via SUMO-primed non-proteolytic ubiquitylation
- 16:45-17:20 **Flash talks 2** – even poster numbers
- 17:20-19:15 Wine Reception sponsored by [Proxygen](#) with  
**Poster session 2** (even numbers)
- 19:30 Conference dinner at [Stiegl Ambulanz](#) (see map section below)



## FRIDAY, 3 MAY 2024

**SESSION 3 The dark side of protein ubiquitination**

(chaired by: Tim Clausen)

- 09:00-09:30 **Yifat Merbl** (Weizmann Institute of Science, Rehovot)  
From proteasomal degradation to immune homeostasis
- 09:30-09:45 **Adam Fletcher** (University of Glasgow)  
New methodology for proteome-wide E3 activity profiling in living cells
- 09:45-10:15 **Fumiyo Ikeda** (Osaka University)  
The RBR ligase HOIL-1 in the regulation of aggregates and inflammation
- 10:15-10:30 **Arno Alpi** (Max Planck Institute of Biochemistry, Martinsried)  
Non-canonical substrate recognition by the human WDR26-CTLH E3 ligase regulates prodrug metabolism
- 10:30-11:00 Coffee break

**SESSION 4 E3 ligases in action**

(chaired by: Ilaria Piazza)

- 11:00-11:15 **Julio Liu** (University of Copenhagen)  
Concerted SUMO-targeted ubiquitin ligase activities of TOPORS and RNF4 are essential for stress management and cell proliferation
- 11:15-11:30 **Rebeca Gogova** (IMP, Vienna)  
Control of HUWE1 by regulated intracellular trafficking
- 11:30-11:45 **Valentina Budroni** (Max Perutz Labs, Vienna)  
Multiple ubiquitin ligases protect human genome integrity by targeting cancer-associated APOBEC3 deaminases for degradation
- 11:45-12:00 **Jakub Luptak** (MRC LMB, Cambridge)  
Rethinking the role of E2 enzymes in TRIM21 driven ubiquitination
- 12:00-13:00 **Lunch Break**

**SESSION 5 UPS and emerging tools**

(chaired by: David Haselbach)

- 13:00-13:30 **Dan Finley** (Harvard Medical School, Boston)  
An endogenous inhibitor of the proteasome
- 13:30-13:45 **Katie Thomas** (The Institute of Cancer Research, London)  
Exploring the SAR of cyclin K degraders
- 13:45-14:00 **Evmorfia Dalietou** (CMD, University of Oxford)  
Towards PROTAC handle discovery for E3 Ligase KLHL12
- 14:00-14:15 **Alejandro Rojas-Fernandez** (Austral University of Chile, Valdivia)  
Specific proteolysis mediated by a p97-directed PROTAC
- 14:15-14:45 **Andreas Martin** (University of California, Berkeley)  
Conformation-specific proteasome binding of the thioredoxin-like protein TXNL1
- 14:45-15:00 Award ceremony & Closing remarks  
(by Yasin Dagdas & Noelia Urbán)

## LIST OF POSTERS

## PRESENTER

- 
- P01 Marjan Abbasi**  
Unraveling Ubiquitin Proteome Dynamics in Facioscapulohumeral Muscular Dystrophy (FSHD)
- 
- P02 Sonja Achleitner**  
Faa1 membrane binding drives autophagosome formation
- 
- P03 Frank Adolf**  
Visualizing chaperone-mediated multistep assembly of the human 20S proteasome
- 
- P04 Sadia Sabrina Alam**  
First SUMO, then ubiquitin: SUMO chains as degradation signals
- 
- P05 Andreas Bachmair**  
N-degron pathways of plants
- 
- P06 Arda Balci**  
ATP is a correlate of infection sensed by broad antimicrobial E3 RNF213
- 
- P07 Lana Buzuk**  
GRASP55 – Switching Roles Between Golgi Structural Maintenance and Autophagy?
- 
- P08 Amy Campell**  
ITCHing for Repair: Unveiling the Role of ITCH in DNA Damage Response
- 
- P09 Julia Chastel**  
Consequences of the delay in EGFR internalization in the absence of the ubiquitin ligase ITCH
- 
- P10 Mariapina D'Onofrio**  
Ubiquitination of the amyloid-forming protein tau: enzymatic and chemical conjugation approaches illuminate structural consequences
- 
- P11 Maria I. Dauden**  
Structural insights on E3 Ubiquitin Ligases RNF20 and RNF40
- 
- P12 Leanne de Jager**  
Cryo-electron tomography studies in yeast: looking cool under stress
- 
- P13 Victoria Faas**  
The role of the E3 ubiquitin ligase RNF213 in targeting lipids during cell-autonomous immunity
- 
- P14 Erika Farkas**  
Membrane protein dynamics of secretory granules in the Drosophila larval and prepupal salivary gland
-



## LIST OF POSTERS

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**P15 Maria Georgina Herrera**

A role of phase-separated Optineurin condensates in selective autophagy

---

**P16 Nesrine Hifdi**

Role of the FBXW7 ubiquitin ligase in muscle growth: link to phosphoinositide metabolism and myotubular myopathy

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**P17 Clara Inghelram**

The structure-based design of novel nucleotide-based degraders to target bHLH-PAS proteins

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**P18 Manikandan Kalidass**

The anaphase-promoting complex (APC/C) regulates the ubiquitylation of overexpressed kinetochore null2 in Arabidopsis thaliana

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**P19 Jenny Knickelbine**

Illuminating the Pathways of Protein Ubiquitination and Degradation

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**P20 Maria Körner & Paul Müller**

p97/VCP is required for piecemeal autophagy of aggresomes

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**P21 Jianing Liu**

Novel functions for the atypical chain-specific deubiquitinase Trabid in intestinal epithelium homeostasis and colorectal cancer

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**P22 Elena Maspero**

Molecular Mechanisms of Small Molecule-mediated NEDD4 Targeting

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**P23 Andrei Mihut**

PERfecting the human cellular circadian clock

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**P24**

Poster withdrawn / registration cancelled

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**P25 Sam Mugford**

An aphid salivary protein targets a conserved plant de-ubiquitinating enzyme and mis-regulates cell surface immune receptors

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**P26 Ami Navon**

A Non-symmetrical p97 Conformation Initiates a Multistep Recruitment of Ufd1/Npl4

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**P27 Anastasia Okun**

The role of UPS in Stress Granule disassembly

---

**P28 Tiphaine Perron**

CYYR1 is a novel regulator of the E3 ubiquitin ligase WWP1 with favorable prognosis value in breast cancer

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**LIST OF POSTERS**

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**P29 Rudolf Pisa**

A thin membrane drives substrate selection during ER-Associated Degradation

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**P30 Dominik Priesmann**

Autoubiquitination regulates LUBAC stability and is required for its degradation

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**P31 Greeshma Pushpa Bose**

Proteostatic regulation of quiescence in adult neural stem cells

---

**P32 Koustav Ray**

A Role of Linear Ubiquitin Chains in Nuclear Localization and Degradation of Mutant Huntingtin

---

**P33 Martin Rennie**

Structural and biochemical basis of FANCI-FANCD2 deubiquitination by USP1-UAF1

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**P34 Maia Reyes**

Investigating changes in 26S proteasome complex composition during budding yeast meiosis

---

**P35 Eilidh Rivers**

ZNFX1 is an antiviral E3 ligase

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**P36 Carolina Saad**

Plant ubiquitin ligase PRT6 targets both type I and type II degrons

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**P37 Apurva Saha**

Ubiquitin Coating of Inner Mitochondrial Membrane Extrusions Protects from Mitochondrial DNA Release

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**P38 Colby Sandate**

Structural and functional insights into p53-interactor complexes on chromatin

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**P39 Irene Schwartz**

Multiple ubiquitin ligases protect human genome integrity by targeting cancer-associated APOBEC3 deaminases for degradation

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**P40 Sara Sepic**

Non-canonical substrate recognition by the human WDR26-CTLH E3 ligase

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**P41 Somayeh Shahmoradi Ghahe**

Pfd5, a subunit of the co-chaperone prefoldin, supports the biogenesis of 26S proteasome

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**P42 Shihua Shi**

Global ubiquitination increase is associated with proinflammatory cytokines release in virally infected primary macrophages

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## LIST OF POSTERS

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**P43 Alexandra Shulkina**

The giant E3 ligases UBR4, BIRC6, and HUWE1 cooperate to degrade the DNA damage response regulator TRIM52

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**P44 Zdenek Skrott**

Insight into two-phase HSP70 and p97 cellular response revealed by microthermal subcellular protein damage

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**P45 Sven Spielhauer**

VCP/p97 is a novel vulnerability in a *Fbxw7*-negative NSCLC mouse tumor model

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**P46 Vincenzo Taibi**

Unleashing the Power of NEDD4: Insights into the Structural Basis and Mechanisms of Action

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**P47 Jörg Tatzelt**

VCP/p97 mediates nuclear targeting of non-ER-imported prion protein to maintain proteostasis

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**P48 Krutika Thakur**

Unveiling regulators of ubiquitin-tagged mitochondrial protein import via fluorescent reporters

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**P49 Daniele Trivellato**

Double monoubiquitination of the Alzheimer's related protein tau impairs aggregation and liquid-liquid phase separation

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**P50 Moritz Urschbach**

Modular access to structurally defined ubiquitin chains

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**P51 Longlong Wang**

Development of novel reagents that efficiently distinguish between free and anchored ubiquitin chains

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**P52 Margherita Zamberlan**

Rap1 GTPase activation leads to LUBAC mediated ubiquitination of NEMO, NFkB nuclear translocation and angiogenesis regulation

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**P53 Jiazhen Zhang**

Activity-based E3 ligase profiling for facilitating the development of tissue-specific degraders

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**P54 Xiaoge Zhou**

The mechanism of SUMOylation modulating degradation of TAp63 $\alpha$

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More Information:

<https://www.protein-degradation.org/symposium/>

