# Ubiquitin & Friends Symposium

# April 27–28, 2023 Vienna, Austria

Van Swieten Hall of the Medical University of Vienna

More Information: protein-degradation.org



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#### **Organizing Institution**

Consortium of the SFB F79 "Targeted Protein Degradation", Lead institution: University of Vienna.

#### **Conference Coordinators**

Sascha Martens, Zahra Ayatollahi and members of the SFB F79

#### Student/PostDoc Organizing Committee

Helen Belalcazar, Victoria Faas, Luca Ferrari, Lilian Kirwan

Special Thanks to Johannes Tkadletz from the IMP/IMBA Graphics department.

Contact: <u>ubiandfriends-symposium@maxperutzlabs.ac.at</u> Homepage: <u>www.protein-degradation.org/symposium</u> Twitter: @SFB\_TPDvienna Symposium hashtag: #ubfriends2023

## Program

#### THURSDAY, 27 APRIL 2023

08:00-09:00 09:00-09:05	Registration and poster setup Welcome & Opening remarks (by Sascha Martens)
SESSION 1	Molecular Insights into the Ubiquitin Proteasome System (chair: Tim Clausen)
09:05-09:35	Satpal Virdee (University of Dundee) New E3 ligase architectures, mechanisms and substrates
09:35-10:05	<b>Simona Polo</b> (IFOM, Milan) Unleashing the Power of NEDD4: Insights into the Structural Basis and Mechanisms of Action
10:05-10:20	<b>Marcin Suskiewicz</b> (CBM, CNRS Orléans) New insights into the catalysis of modification reactions
10:20-10:50	Coffee break
10:50-11:20	<b>Minglei Zhao</b> (University of Chicago) <i>Human p</i> 97 — what we know and what we do not know
11:20-11:35	<b>Ami Navon</b> , Weizmann Institute of Science, Rehovot An inherent oxidative switch regulates proteasome reprograming
11:35-12:05	<b>Hidde Ploegh</b> (Boston Children's Hospital) Nanobodies to probe the network of E2-type Ub-conjugating enzymes
12:05-12:40	Flash talks 1 – odd poster numbers
12:40-14:10	Lunch with poster session 1 (odd numbers)
14:10-14:20	Group photo
SESSION 2	Autophagy & Quality Control in Cellular Compartments (chair: Elif Karagöz)
14:20-14:50	Florian Wilfling (Max Planck Institute of Biophysics, Frankfurt) Autophagosome biogenesis - a structural perspective
14:50-15:20	<b>Noboru Mizushima</b> (University of Tokyo) <i>Ubiquitination of phospholipids and new topics in autophagy</i>
15:20-15:35	<b>David Teis</b> (Medical University of Innsbruck) The defective for SREBP cleavage (Dsc) complex mediates membrane quality control by degrading orphaned proteins

15:35-16:00	Coffee break
16:00-16:30	<b>Elke Deuerling</b> (University of Konstanz) Unraveling the Complexities of Protein Transport: NACs UBA Domain as Molecular Regulator of ER Transport
16:30-16:45	<b>Piotr Bragoszewski</b> (Nencki Institute of Experimental Biology, Warsaw) Discrete roles of the proteasome in the quality control of the arrested mitochondrial protein import intermediates in yeast and human cells
16:45-17:20	Flash talks 2 – even poster numbers
17:20-19:15	Wine Reception sponsored by <u>Proxygen</u> with poster session 2 (even numbers)
19:30	Conference dinner at <u>Stiegl Ambulanz</u> (see map section below)



#### FRIDAY, 28 APRIL 2023

SESSION 3	Proteostasis in Aging and Disease (chair: Noelia Urbán)
09:00-09:30	<b>Seda Koyuncu</b> (CECAD – Cluster of Excellence, University of Cologne) <i>Rewiring of the ubiquitinated proteome determines aging</i>
09:30-09:45	<b>Ariel Stanhill</b> (The Open University Israel, Ra'anana) Pre-emptive quality control regulation of ER homeostasis- In-vivo role of RNF149 in Diabetes
09:45-10:00	<b>David Schwefel</b> (Technical University of Berlin) <i>Targeted protein degradation goes viral: interferon antagonism by</i> <i>DCAF mimicry</i>

10:00-10:15	<b>Siavash Vahidi</b> (University of Guelph) Allosteric regulation of <i>M. tuberculosis proteasome function</i>
10:15-10:45	Coffee break
SESSION 4	DNA Repair and Chromatin-related Processes (chair: Gijs Versteeg)
10:45-11:00	Hans-Peter Wollscheid (Institute of Molecular Biology, Mainz) Nuclear functions of the ubiquitin receptor myosin VI
11:00-11:15	<b>Laura Claessens</b> (Leiden University and Medical Center) The role of poly-SUMO2/3 protease SENP6 in the DNA damage response
11:15-11:30	Barbara Nikolett Borsos (University of Szeged) Role of P53 in S2P RNAPII ubiquitylation upon DNA damage
11:30-11:45	<b>Robert Shearer</b> (University of Copenhagen) K29-linked ubiquitylation regulates SUV39H1 stability to promote epigenome maintenance
11:45-12:45	Lunch break
SESSION 5	Protein Folding and Quality Control
	(chair: David Haselbach)
12:45-13:15	Judith Frydman (University of Stanford) Nuclear and cytoplasmic spatial protein quality control are coordinated by nuclear-vacuolar junctions and a perinuclear ESCRT machinery
13:15-13:30	<b>Jakob Farnung</b> (Max Planck Institute of Biochemistry, Martinsried, and ETH Zürich) <i>C-terminal amides mark proteins for proteasomal degradation via</i> <i>SCF/FBXO31</i>
13:30-14:00	<b>Manu Hegde</b> (MRC Laboratory of Molecular Biology, Cambridge) Quality control of proteins orphaned in the cytosol
14:00-14:20	Award ceremony & closing remarks (Yasin Dagdas & Silvia Ramundo)
	(Tablin Dagado a Cinna Hamando)

#### LIST OF POSTERS

#### P01 Savina Abraham-Pol

Establishing SNAP-targeting PROTACs to study Golgi-related transport and proteostasis

#### P02 Sascha J. Amann

Pithd1's role in 26S proteasomal degradation

#### P03 Renato Arnese

HCM-linked myosin mutations result in a faulty protein quality control

#### P04 Samkeliso Blundell

The bacterial effector SteD is a co-activator of the E3 ubiquitin ligase WWP2

#### P05 Erik Bonke

Step-by-Step Monitoring of PROTAC Activity

#### P06 Valentina Budroni

Cellular degradation mechanism of cancer-associated deaminases

#### P07 Anna Dósa

The role of ubiquitin in secretory granule-lysosome fusion

#### P08 Sara Carrillo Roas

Quality control of protein complex assembly

#### P09 Dean Clift & Leo Kiss

Trim-Away ubiquitinates and degrades lysine-less and N-terminally acetylated substrates

#### P10 María I. Daudén

CryoEM of E3 Ubiquitin Ligases RNF20 and RNF40

#### P11 João Diamantino

Protein quality control at the cytosolic side of the Golgi membrane

#### P12 Larissa Dietz

**BRUCE** Almighty

#### P13 Lennard-Maximilian Döring

Two sides of the same coin: How Sumo-targeted ubiquitylation and DeSUMOylation antagonistically regulate monoSUMOylated proteins

#### P14 Laura Donzelli

The role of DPP9 in endoplasmic reticulum stress

#### P16 Julian F. Ehrmann

Structural basis for regulation of apoptosis and autophagy by the BIRC6/SMAC complex

#### LIST OF POSTERS

#### P17 Stéphane Goffinont

Generation of a stable mimetic of the human E2~SUMO thioester provides insights into the SUMOylation reaction

#### P18 Korina Goldin-Azulay

Genome Editing for Visualizing Human GABARAP Family Proteins

#### P19 Roan Groh

How does Autophagy rescue stalled ribosomes at the ER

#### P20 Maximilian Haka

Unwinding the binding specificity of Ulp2's loops

#### P21 Ceara Harper

ZNFX1, a novel non-canonical ubiquitin ligase

#### P22 David M. Hoi & Sabryna Junker

Development of a dual Clp-targeting BacPROTAC that impairs mycobacterial proteostasis and survival

#### P23 Ecem Kirkiz

Identification of the regulators of NUP98-fusion oncoprotein homeostasis

#### P24 Darja Kordic

Mechanistic insight into client recognition and ubiquitination of promiscuous E2/E3 hybrid Ube2o

#### P25 Ikuko Koyama-Honda

Quantitative 3D correlative light and electron microscopy of autophagosome-organelle contacts and autophagosomal contents

#### P26 Jakub Luptak

TRIM7 Restricts Coxsackievirus and Norovirus Infection by Detecting the C-Terminal Glutamine Generated by 3C Protease Processing

#### P27 Mohit Misra

C-terminal domain of Legionella SidE family effectors is required for serine ubiquitination of host substrates

#### P28 Paul Müller

A novel autophagy flux reporter for live-cell monitoring of protein aggregate turnover

#### P29 Marintia Nava Garcia

CESAR is a novel selective autophagy receptor that contributes to heat stress tolerance in *Arabidopsis thaliana* 

#### LIST OF POSTERS

#### P30 Vivien Strauch

A FRET-based assay for PROTAC ternary complex hit screening and kinetics characterization using Y-shaped DNA nanostructures

#### P31 R.H. Amanda Ng

Using Cell Morphological Profiling to discover novel CRBN-dependent molecular glues

#### P32 Rachel O'Dea

Molecular basis for Ubiquitin/Fubi cross-reactivity in USP16 and USP36

#### P33 Fabian Offensperger

Chemical proteomics to assess the ligandable proteome

#### P34 Zoltán G. Páhi

Usp5, Usp34, and Otu1 deubiquitylases mediate DNA repair in Drosophila melanogaster

#### P35 Sophie Piech

Chemical Modulation of RAS Proteostasis

#### P36 Greeshma Pushpa Bose

Proteostatic regulation of quiescence in adult neural stem cells

#### P37 Susanne Reichinnek

Unraveling the proteome and ubiquitin pathways, the future of chemically induced proximity

#### P38 Jun-ichi Sakamaki

Ubiquitination of phosphatidylethanolamine in organellar membranes

#### P39 Irene Schwartz

SPOP targets the immune transcription factor IRF1 for proteasomal degradation

#### P40 Víctor Sánchez de Medina Hernández

Leveraging evolutionary diversity to discover new autophagy mechanisms

#### P41 Nazife Tolay

Role of deubiquitylating enzymes in stress granule dynamics

#### P42 Nikola Winter

Plant ubiquitin ligase PRT6 has redundant functions

#### P43 Nathalie Christine Wörz

Targeting bacterial effector proteins

#### P44 Zhou Zhao

Native Semi-synthesis of Isopeptide-linked Substrates for Specificity Analysis of Deubiquitinases and Ubiquitin-like Proteases

More Information:

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



















