Fine-tuning of proteolysis according to cellular needs



Schloss Hohenkammer, Munich, Germany

Conference URL: http://www.weizmann.ac.il/conferences/ProteasomeHub2018/

Organizers:

- Eyal Gur (Ben-Gurion University of the Negev, Israel)
- Silke Meiners (Hemholtz Zentrum München, Germany)
- Yifat Merbl (The Weizmann Institute of Science, Israel)
- Michal Sharon (The Weizmann Institute of Science, Israel)

1st Day (Feb 12, 2018)

Session 1a: Proteasome structure and function

Chairs: Dan Finley and Mickal Nawatha

Time	Session/Lecture info
15:00 – 15:10	Welcome address
15:10 – 15:40	Andreas Martin (UC Berkeley, USA): Substrate processing and mechanochemical coupling of the 26S proteasome - a fine-tuned molecular machine
15:40 – 16:10	Lan Huang (UC Irvine, USA): Structural Dynamics and Regulation of the 26S Proteasome
16:10 – 16:40	Eyal Gur (Ben-Gurion University, Israel): A novel system for biochemical analysis of the bacterial proteasome
16:40 – 17:00	Eri Sakata (Max Planck Institute Munich, Germany): Conformational landscape of the 26S proteasome gives insights into the gate-opening of the 20S CP
17:00 – 19:30	Poster session and Bavarian beer
19:30 – 22:00	Diner and informal get-together

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2nd Day (Feb 13, 2018)

Session 1b: Proteasome structure and function

Chairs: Marcus Groettrup and Maya Olshina

Time	Session/Lecture info
08:30 - 09:00	Wolfgang Baumeister (Max Planck Institute Munich, Germany): The molecular machinery of protein degradation - structural studies ex situ and in situ
09:00 – 09:30	Michael Glickman (The Technion, Israel): "and Proteasome, would you like any ubiquitin with your substrate?"
09:30 - 09:50	Julien Licchesi (University of Bath, UK): Biochemical properties and cellular function of the E3 ubiquitin ligase HECTD1
09:50 - 10:10	Coffee break

Session 2a: Alternative regulation of the 20S proteasome

Chairs: Eyal Gur and Thomas Meul

Time	Session/Lecture info
10:10 - 10:40	Michal Sharon (The Weizmann Institute, Israel): Specific regulation of the 20S proteasome complex
10:40 – 11:10	Olivier Coux (CRBM - CNRS, France): PIP30/FAM192A, a novel regulator of the nuclear 20S proteasome / PA28γ complex
11:10 – 11:40	Eilika Weber-Ban (ETH Zurich, Switzerland): Alternative Proteasome Regulators in Mycobacteria
11:40 – 12.00	Marie-Pierre Bousquet (IPBS - CNRS, France): LC-SRM targeted quantification of 20S proteasome complexes stoichiometry for the accurate monitoring of proteasome heterogeneity and dynamics using absolute SILAC
12:00 – 14:30	Lunch break: "Meet the expert at lunch" (interactive junior/senior scientist lunch)

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Session 2b: Alternative regulation of the 20S proteasome

Chairs: Olivier Coux and Shai Schlussel

Time	Session/Lecture info
14:30 – 15:00	Silke Meiners (Helmholtz Zentrum München, Germany): PA200: a novel regulator of cell growth and survival in lung diseases
15:00 – 15:30	Huilin Li (Van Andel Research Institute, USA): <i>M. tuberculosis</i> proteasome activation by ATP-dependent and ATP-independent complexes
15:30 – 15:50	Yosef Shaul (The Weizmann Institute, Israel): Intrinsically disordered proteins are targeted to ubiquitin independent degradation through interaction with a novel 20S proteasome receptor
15:50 – 16:10	Massimo Coletta (University of Rome, Italy): Allosteric interaction of 19S with 20S proteasome
16:10 – 16:40	Coffee break

Session 3: Ph.D. students' session (organized by Vanessa Welk and Thomas Meul)

Chairs: Michal Sharon and Vanessa Welk

Time	Session/Lecture info
16:40 – 16:50	Introduction
16:50 – 17:05	Mickal Nawatha (The Technion, Israel): Targeting the Lys48 linked ubiquitin chain using Random non-standard Peptides Integrated Discovery (RaPID)
17:05 – 17:20	Jared AM Bard (UC Berkeley, USA): Illuminating the path to degradation: A kinetic exploration of substrate degradation by the 26S proteasome
17:20 – 17:35	Elmer Maurits (University of Leiden, Netherlands): Selective fluorogenic substrates for constitutive and immuno proteasome subunits
17:35 – 17:50	Thomas Meul (Helmholtz Zentrum München, Germany): Metabolic regulation of the proteasome
17:50 – 18:35	Keynote lecture: Alfred Goldberg (Harvard Medical School, USA): 50 Years of Degradation
19:30 – 22:00	Diner and informal get together

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3rd Day (Feb 14, 2018)

Session 4a: Proteasome-dependent regulation of cellular function

Chairs: Silke Meiners and Eva Maria Huber

Time	Session/Lecture info
08:30 - 09:00	Marcus Groettrup (University of Konstanz, Germany): How immunoproteasome inhibition prevents chronic antibody-mediated allograft rejection in renal transplantation
09:00 - 09:20	Shay Ben Aroya (Bar-Ilan University, Israel): Regulation of the Anaphase Promoting Complex/Cyclosome (APC/C) by the Proteasome Mediated Degradation of its Unassembled Catalytic Subunit, Apc11
09:20 - 09:40	Peter Tsvetkov (Whitehead Institute for Biomedical Research, USA): A new way cancer cells cope with proteotoxic stress
09:40 - 10:10	Michael Groll (Technische Universität München, Germany): Targeting the Proteasome by Bioactive Peptides
10:10 - 10:40	Coffee break

Session 4b: Proteasome-dependent regulation of cellular function

Chairs: Eilika Weber-Ban and Assaf Biran

Time	Session/Lecture info
10:40 – 11:10	Shigeo Murata (The University of Tokyo, Japan): How cells respond to proteasome impairment
11:10 – 11:40	Yifat Merbl (The Weizmann Institute, Israel): Localized proteasomal degradation at the Golgi
11:40 – 12:10	Elke Krüger (University of Greifswald, Germany): Cellular adaptation pathways for proteasome degradation and diversity
12:10 – 12:40	Bertrand Friguet (Institute de Biologie Paris Seine, France): Oxidized protein homeostasis: implication of circadian rhythm, oxidative stress and aging
12:40 - 14:00	Lunch break

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Session 5: Substrate recognition & processing

Chairs: Yifat Merbl and Jared Bard

Time	Session/Lecture info
14:00 – 14:20	Yogesh Kulathu (University of Dundee, UK): Regulation of protein degradation by MINDY Deubiquitinases
14:20 – 14:50	Tommer Ravid (The Hebrew University of Jerusalem, Israel): The complexity of degradation signals in protein quality control pathways
14:50 – 15:20	Andreas Matouschek (The University of Texas at Austin, USA): Disordered regions fine-tune protein half-life
15:20 – 15:50	Dan Finley (Harvard Medical School, USA): Reciprocal regulation between Ubp6 and the proteasome
15:50 - 16:00	Wrap-up and departure