

X-ZOMES

The broader cellular impact of **PCI** complexes

Detailed tentative program (updated Jan 28, 2019)

Monday 4/2:

12:00- Registration (in the lobby of ANA Akko Knights Hostel)

12:00-15:00 Optional: Akko Old city tour, meeting at the lobby of ANA Akko Knights Hostel

16:00-17:30 Coffee and Cake (in the lobby of ANA Akko Knights Hostel)

Session 1: Zomes-Old and New insights

Chair: Michael Glickman

17:30-17:40 Michael Glickman Welcome

17:40-18:20 Keynote Talk:
Wolfgang Baumeister The Molecular Machinery of Protein Degradation: Structural Studies ex situ and in situ

18:20-18:40 Wolfgang Dubiel CSN7A and CSN7B isoforms constitute distinct CSN variants that preferentially bind to specific CRLs with consequences for adipogenesis

18:40-19:00 Yaser Hashem Structural differences in eIF3 between pathogenic kinetoplastids and their mammalian hosts

19:00-20:00 Dinner

20:00 Wine and Reception

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Tuesday 5/2:

7:30-9:00	Breakfast	
Session 2: Proteasomes- from structure to function		
Chair: Yosef Shaul		
9:00-9:20	Michele Mishto	Proteasome-catalysed peptide splicing
9:20-9:40	Michal Sharon	Regulation of the 20S proteasome by a novel family of inhibitory proteins
9:40-10:00	Eyal Gur	Coordination of substrate tethering and engagement is required for protein degradation by the bacterial proteasome
10:00-10:20	Bernat Crosas	Does Sumoylation regulate proteasome function?
10:20-10:40	Indrajit Sahu (Selected)	How does Tetra-Ubiquitin determine 26S Proteasome processivity?
10:40-11:10	Coffee Break	
Session 3: Zomes and protein clearance		
Chair: Dieter Wolf		
11:10-11:30	Richard D. Vierstra	Autophagic degradation of proteasomes is regulated by multiple ubiquitylation and aggregation events and involves a novel family of UIM-containing autophagy receptors
11:30-11:50	Shay Ben-Aroya	Spatial organization of proteasome aggregations regulates proteasome subunits homeostasis
11:50-12:10	Ari Sadanandom	SUMO modification and plant stress signaling
12:10-12:30	Avi Ashkenazi	Regulation of autophagy by the deubiquitinase ataxin-3: relevance to polyglutamine diseases
12:30-12:50	Tommer Ravid	Interplay Between Misfolded Protein Aggregation and Proteasomal Degradation
13:00-15:00	Lunch/Break	

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Tuesday 5/2 (Cont I):

Session 4: Zomes in Development

Chair: Giovanna Serino

15:00-15:20	Xing Wang Deng	Regulators of COP1 E3 ligase and their roles in modulating light control of plant development
15:20-15:40	Gerhard Braus	COP9 signalosome, CandA and the lid of the proteasome in multicellular fungal development
15:40-16:00	Vicente Rubio	DET1 complexes control photomorphogenesis by acting at the interface between light signaling and epigenome dynamics in plants
16:00-16:20	Ning Wei	Signal induced degradation of PIF3 and RGL2 transcription factors via SCF, and the role of the CSN
16:20-16:40	Dawadschagal Dubiel (selected)	CRL3, RAB18 and CAV1: essential factors for the mesenchymal stem cell differentiation to adipocytes
16:40-17:10	Coffee Break	

Session 5: From protein synthesis to protein stability

Chair: Shigeo Murata

17:10-17:30	Dieter Wolf	Role of eIF3 in protein synthesis and quality control
17:30-17:50	Leos Valasek	Co-translational assembly of initiation complexes viewed by newly developed IP-TCP-seq
17:50-18:10	Michal Shapira	Non-conserved assembly processes drive and control the translation machinery in Leishmania - the eIF3 perspective
18:10-18:30	Tom Tsuge	Is CSN involved in alternative polyadenylation regulation? – CSN-binding protein CFI 25 is essential for 3'UTR polyadenylation site determination and its diversity
18:30-18:50	Anat Ben-Zvi	Building and Maintaining muscle proteostasis
19:00-20:00	Dinner	

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Tuesday 5/2 (Cont II.):

Special Session: Frontiers of Zomes research “Where to from here?”

Chair: Michael Glickman

20:00-21:00	Speed Posters	
	Kristyna Poncova	RPS3 and translation
	Guiyou Tian	HSPA1 increase co-translational protein degradation by the 26S proteasome by preventing the aggregation of ubiquitylated nascent peptide
	Yuan Tian	The role of COP9 signalosome subunit 5 in the microglial inflammatory response
	Bayan Mashahreh	Bicistronic reporter system as a tool to measure protein dynamics in yeast
	Maya Olshina	Regulation of the 20S proteasome by a novel family of inhibitory proteins
	Amit Kumar Singh	Heat stress partially rescues the phenotypes of <i>csn5a-1</i> in Arabidopsis
	Anna Maria	The trimeric CandA complex of <i>A. nidulans</i> includes fungal specific CandA-C1 protein for CullinA E3 ligase activity and fungal growth
	Fruzsina Bakti	Assembly of the fungal <i>A. nidulans</i> COP9 signalosome
	Jing Wang	Knockout of CSN7B in AD293 cells retards double-strand break signaling induced by mitomycin C
	Barbara Zieba	Cellular mechanisms of proteotoxic stress – relevance to pathology of PRAAS
	Ewelina Guca	Interactions of the Kozak-sequence in the context of the mammalian late-stage initiation complex
	Shoshiro Hirayama	Cell cycle -dependent and -independent regulation of subcellular localization of mammalian proteasomes
21:00- The last of the revelers	Poster session in the lobby.	

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Wednesday 6/2 :

7:30-9:00	Breakfast	
Session 6: Zomes in stress		
Chair: Xing Wang Deng		
9:00-9:20	Danny Chamovitz	The CSN5 differentially regulates the heat response in Arabidopsis
9:20-9:40	Giovanna Serino	Cullin neddylation is regulated by water deprivation in Arabidopsis thaliana
9:40-10:00	Dana Reichmann	Exploring redox switches in protein homeostasis
10:00-10:20	Shiego Murata	How cells respond to proteasome impairment
10:20-10:40	Hermann Steller	PI31 is an adaptor protein for proteasome transport in axons and required for synaptic development and function
10:40-11:10	Coffee Break	
Session 7: Zomes in cancer		
Chair: Thimo Kurz		
11:10-11:30	Julius Rabl	Structure and function of the BRCA1-A and BRISC K63 deubiquitinase complexes
11:30-11:50	Juergen Bernhagen	Role of the COP9 signalosome in early atherogenesis and neointimal injury
11:50-12:10	Amir Orian	Ubiquitination; from oncoproteins degradation to targeting "degradation-resistant" tumors
12:10-12:30	Michael Naumann	Exploitation of CSN-associated deubiquitinylases as biomarkers and therapeutic targets in gastric cancer
12:30-12:50	Sarit Larisch	Degradation of both Bcl-2 and XIAP by ARTS and ARTS mimetics promote apoptosis
13:00-15:00	Lunch/Break	
Session 8: Zomes in metabolism		
Chair: Shenhav Cohen		
15:00-15:20	Simon Wing	Roles of USP19 Deubiquitinating Enzyme in Metabolism - Mechanisms and Translation
15:20-15:40	Rao Feng	Metabolite-dependent CRL4 deneddylation by CSN controls insulin secretion and obesity
15:40-16:00	Yosef Shaul	Components of liquid droplets as the preferential substrates of non-26S proteasomes
16:00-16:20	Erika Isono	Regulation of ubiquitin-dependent membrane trafficking in Arabidopsis
16:20-16:40	Jennifer Gilda (Selected)	Proteasome gene induction during muscle atrophy- a critical role for a novel transcription factor

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Wednesday 6/2 (Cont.):

16:40-17:10 Coffee Break

Session 9: From mono to oligo conjugation

Chair: Richard D. Vierstra

17:10-17:30	Arno Alpi	Coupled monoubiquitylation of DCNL1 by Ariadne-RBR E3 ubiquitin ligases promotes cullin-RING ligase complex remodeling
17:30-17:50	Reuven Winner	Mechanisms of UFM1 activation by the E1 enzyme UBA5
17:50-18:30	Distinguished talk: Aaron Ciechanover	Monoubiquitination and oligoubiquitination – from basic mechanisms to immune therapy
18:50-20:00	Gala Dinner	
20:00-	Rub1 vs. Nedd8 Challenge – Round Table	

Thursday 7/2:

7:30-8:30 Breakfast

Session 10: Technological avenues in Zomes research

Chair: Oded Kleifeld

8:30-8:50	Ovaa Huib	Small Molecule-mediated proteasome activation
8:50-9:10	Gali Prag	E. coli based positive selection system: an app for ubiquitylation and drug discovery
9:10-9:30	Yifat Merbl	Dumpster-diving for health
9:30-9:50	Emer Ferro	Intracellular peptides from cell biology to pharmacology
9:50-10:10	Gunnar Dittmar	Large-scale monitoring of PTM-induced interactome changes of the Claudin-protein family
10:10-10:30	Coffee Break	

Session 11: The different facets of Nedd8

Chair: Elah Pick

10:30-11:00	Claus Schwechheimer	DEN1 - a deneddylase in Arabidopsis thaliana
11:00-11:20	Thimo Kurz	NEDD8 inhibits PARP-1 to protect from oxidative stress-induced cell death
11:20-11:40	Dimitris Xirodimas	The NEDD8 pathway and nuclear protein quality control
11:40-12:00	David Fushman	Cross activation of ubiquitin and Rub1
12:00-12:20	Brenda Schulman	Structural and Mechanistic Studies of Cullin-RING E3 ligases
12:20-12:30	Closing/Awards	