

Pacific Coast Protease Spring School

**Miracle Springs Resort & Spa
Desert Hot Springs, California
April 29 – May 2, 2018**



Organized by Matt Bogyo and Guy Salvesen

ABOUT THE WORKSHOP

This workshop is designed to provide a stimulating expert environment for the discussion of new information on proteolytic enzymes, their substrates, their inhibitors, and their function. It is organized by Guy Salvesen and Matt Bogyo and is made possible with funding from the NIH and our sponsors.

The objective is to provide trainees (junior faculty, post-docs, and graduate students) with experience in presenting their work to an expert audience, chairing scientific sessions, and to foster collaborations. Expert external faculty will give guest presentations and stimulate discussions.

The work presented here is state-of-the-art and much is yet to be published. Consequently, professional use of the data and ideas learned at the workshop is prohibited without the expressed consent of the respective presenters and their supervisors.



There will be awards at the end of the workshop, including the coveted "Half Moon" for the best presentation.

SPONSORS

Pacific Coast Protease Spring School is pleased to recognize support by:



PRESENTATIONS AND ABSTRACTS

Trainee talks are 20 min (15 min + 5 min discussion).

Guest faculty talks are 30 min (25 min + 5 min discussion).

Speaker abstracts are listed in order of presentation.



Sunday, May 7th

3:00 pm	Matt and Guy	Welcome!	Location:
---------	--------------	----------	-----------

Chairs: Guy Salvesen and Martina Tholen

Time	Speaker	Title	Lab
3:05 pm	Antoine Dufour	Get your facts first about proteases, then you can distort them as you please. The life of a young PI	Outside Expert
3:35 pm	Brett Babin	Inhibition of Lon protease activity in bacterial persister cells	Bogyo
3:55 pm	Betsaida Bibo-Verdugo	Using dog hybrid caspase as a model to study activation of inflammatory caspases	Salvesen
4:15 pm	Euna Yoo	Plasmodium-selective proteasome inhibitors to combat multi-drug resistant malaria	Bogyo
4:35 pm	Coffee break	Location: Atrium Conference Room	



Chairs: Leslie Ofori and Monica Gonzalez

Time	Speaker	Title	Lab
5:00 pm	Bob Lazarus	Mechanism of Allosteric Activation of Tryptase: Dual Functionality of Tryptase Protomers as Both Proteases and Cofactors	Outside Expert
5:30 pm	Amy Weeks	Mapping cell surface proteolysis in living cells via spatially-restricted N-terminal tagging	Wells
5:50 pm	Josh Yim	Developing optical chemical probes for targeting signatures of cancer microenvironments	Bogyo
6:10 pm	Amir Razai	Development of an inhibitory antibody against MMP10	Salvesen
6:30 pm	Olivier Julien	Subtiligase N-terminomics: tag you're it!	Outside Expert
7:30 pm	Dinner	BBQ at Salvesen Villa	

Monday, May 8th

Chairs: Fiona Scott and Josh Yim

Time	Speaker	Title	Lab
8:00am	Breakfast	Location: Atrium Conference Room	
9:00 am	Anthony O'Donoghue	Development of a Magnetoresistive Sensor for Point of Care Detection of Protease Activity	Outside Expert
9:30 am	John Widen	A Dual Protease Triggered AND-gate Probe for Targeted Imaging of Tumors In Vivo	Bogyo
9:50 am	Jordan Woehl	Identification, quantitation, and biochemical analysis of proteases secreted into the distal gut targeted for inhibition by host anti-proteolytic proteins	Wolan
10:10 am	Martina Tholen	Identifying small molecule modulators of tumor inflammation	Bogyo
10:30 am	Coffee break	Location: Atrium Conference Room	



Chairs: Polly Fordyce and Matt Ravalin

Time	Speaker	Title	Lab
11:00 am	Marcin Drag	In quest of optimal technology to investigate activity of proteolytic enzymes in health and disease	Outside Expert
11:30 am	Kaitlin Hulce	Covalent inhibition of herpesvirus protease by tethering to a conserved non-catalytic cysteine	Craik
11:50 am	Katarzyna Groborz	A set of reversible inhibitors to investigate apoptotic and inflammatory caspases.	Salvesen
12:10 pm	Linhai Chen	Development of fluorescent probes targeting Staphylococcus aureus serine hydrolases	Bogyo
12:30 pm	Zhenze Jiang	Kinetics-Based Quantitative Multiplex Substrate Profiling of Proteases by Mass Spectrometry	O'Donoghue
1:00 pm	Lunch	Location: Atrium Conference Room	
1:30 pm	Afternoon activities		
6:30 pm	BBQ in Joshua Tree Park		

Tuesday, April 26th

Chairs: Chris Overall and Reini Kappelhoff

Time	Speaker	Title	Lab
8:00am	Breakfast	Location: Atrium Conference Room	
9:00 am	Leslie Ofori	The Academic walls, navigating out of, or into	Outside Expert
9:30 am	Gabriella Fernandez-Cuervo	MRBLE-peptide libraries to profile disease-specific protease signatures	Bogyo
9:50 am	Matt Ravalin	Loss of CHIP function drives the accumulation of caspase neo-C-termini in Alzheimer's Disease	Craik
10:10 am	Monica Gonzalez	Developing biochemical tools to characterize the activation mechanism of inflammatory caspases	Salvesen
10:30 am	Coffee break	Location: Atrium Conference Room	



Chairs: Marcin Drag and Euna Yoo

Time	Speaker	Title	Lab
11:00 am	Polly Fordyce	A next-generation platform for quantitative dissection of enzyme function	Outside Expert
11:30 am	Ouma Onguka	Biochemical characterization of Toxoplasma gondii Active Serine Hydrolase 4 (TgASH4)	Bogyo
11:50 am	Scott Snipas	Caspase-14 and the control of follicular cell fate	Salvesen
12:10 pm	Sebastian Loscher	Two worlds collide: Improving the properties of Ebselen	Bogyo
12:30 pm	Paulina Kasperkiewicz	A potent and selective inhibitor of human granzyme A	Outside Expert
1:00 pm	Lunch	Location: Atrium Conference Room	

Chairs: Jim Wells and Jordan Woehl

Time	Speaker	Title	Lab
3:00 pm	Dennis Wolan	A dipeptidyl aminopeptidase secreted from the commensal bacterium <i>P. distasonis</i> degrades human antimicrobial peptides	Outside Expert
3:30 pm	Seiya Kitamura	Identification and optimization of potent benzamide inhibitors of lipoprotein signal peptidase	Wolan
3:50 pm	Shiyu Chen	Potent and specific activity based protease probes generated from chemically modified phage libraries	Bogyo
4:10 pm	Anne Hempel	Cellular fate during pyroptosis	Salvesen
4:30 pm	Fiona Scott	Secret of my success: Be flexible! One person's guide to making it in the small biotech industry	Outside Expert
5:00 pm	Christian Lentz	Fluorophosphonate-binding hydrolase B as a new virulence factor in <i>Staphylococcus aureus</i>	Bogyo
7:30 pm	Dinner and Awards	Location: Atrium Conference Room	

Wednesday, April 27th

9:00 am	Departure
---------	-----------

