

**22nd edition of the
Pacific Coast Protease Workshop**

**Palm Canyon Resort
Borrego Springs, California**



April 12th – 15th 2026

Organized by Matt Bogyo, Guy Salvesen, Olivier Julien, Anthony O'Donoghue, Antoine Dufour and Kasia Groborz

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.

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.

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PRESENTATIONS AND ABSTRACTS

Trainee talks are 15 min (12 min + 3 min discussion).

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

Speaker abstracts are listed in order of presentation.



Sunday, April 12th

3:00 pm	Matt Bogyo, Olivier Julien, Anthony O'Donoghue, Antoine Dufour	Welcome!	Location: Conference Room
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Chairs: Taylor Bader and Alyssa Carter

Time	Speaker	Title	Lab
3:20 pm	Laura Sycuro	Bacterial proteases in the vaginal microbiome	Outside Expert (University of Calgary)
3:50 pm	Tulsi Upadhyay	A Covalent Fragment-Based Approach to Target the nsP2 Cysteine Protease Across Alphaviruses	Bogyo
4:05 pm	Zi Yao	Scratching the surfaceome with Sheddors	Wells
4:20 pm	Anjali Kapilan	Integrated Proteomics and N-terminomics Reveal a Role for MMP 12 in Hepatic Metabolic Remodeling During Diet Induced Liver Stress	Dufour
4:35 pm	Jainilkumar Patel	Identifying pyroptotic caspase-7 substrates in placenta explants using N-terminomics	Julien
4:50 pm	15 min Discussion		
5:05 pm	Coffee break	Location: Conference Room	



Chairs: Ifeanyichukwu Eke and Richard Long

Time	Speaker	Title	Lab
5:35 pm	Jim Wells	Targeted extracellular degradation (eTPD)	Outside Expert (UCSF)
6:05 pm	Laney Flanagan	Investigation of secreted proteases in gut commensals for desensitization of Protease-activated receptor 2	Bogyo
6:20 pm	Rachell Martinez-Ramirez	Unraveling the Role of Tryptase α/β -Heterotetramers in Mast Cells	Lazarus
6:35 pm	Irving Lopez	An Academic-Industrial Partnership Exploring Cysteine Protease Inhibitors as Potential Drugs for Trypanosomiasis	Caffrey
6:50 pm	Andrea Pence	Functional validation of an engineered BoNT/E protease for cleavage of a novel neurodegenerative target	O'Donoghue
7:05 pm	Kenzie Birse	Vaginal bacteria linked to preterm birth cleave the labour agonist fetal fibronectin	Sycuro/Dufour
7:20 pm	Dinner	Big Horn Burgers & Shakes (Palm Canyon Hotel & RV Resort)	



Monday, April 12th

Chairs: Anjali Kapilan and Laney Flanagan

Time	Speaker	Title	Lab
8:30 am	Breakfast	Location: Conference Room	
9:00 am	Margaux Pinney	Scaling Protease Biochemistry with High-Throughput Mechanistic Enzymology	Outside Expert (UC Berkeley)
9:30 am	Ifeanyi Chukwu Eke	Alkyl-aryl phosphonates as covalent inhibitors of mycobacterial serine protease Hip1	Bogyo
9:45 am	Dashiell Anderson	The Excitement and Challenges of Advanced Peptide Synthesis	Craik
10:00 am	Estefania Martinez Valdivia	Generation of Asymmetric Bivalent Covalent Bowman-Birk Inhibitors that are Highly Selective for Tetrameric β -Tryptase	Lazarus
10:15 am	15 min Discussion		
10:30 am	Coffee break	Location: Conference Room	



Chairs: Estefania Martinez Valdivia and Tulsı Upadhyay

Time	Speaker	Title	Lab
11:00 am	Charles Craik	Therapeutic targeting of proteases using antibody engineering	Outside Expert (UCSF)
11:30 am	Philipp Schilling	Development of a chemical "Vending Machine" for facile optimization of covalent inhibitors and probes	Bogyo
11:45 am	Kyle Lesack	Don't Vape That Grape	Dufour
12:00 pm	Lunch	Location: Conference Room (salads & sandwiches)	
1:00 pm-	Borrego Springs	TBD Hike, pizza and beer in Julian, CA	
7:00 pm		Trivia Night	



Tuesday, April 14th

Chairs: Kyle Lesack and Christien Exconde

Time	Speaker	Title	Lab
8:30 am	Breakfast	Location: Conference Room	
9:00 am	Cornelius Taabazuing	Inflammatory and apoptotic caspases orchestrate <i>Salmonella</i> defense in human macrophages	Outside Expert (UPenn)
9:30 am	Lynna Baryakova	Developing sequential AND-gated protease-activated probes for cancer imaging	Bogyo
9:45 am	Deokhee Kang	A prodrug strategy to conditionally trap therapeutic payloads for improved tumor retention	Craik
10:00 am	Richard Long	Single-cell proteomics uncovers proteomic changes during H1N1 infection	Julien
10:15 am	15 min Discussion		
10:30 am	Coffee break	Location: Conference Room	



Chairs: Irving Lopez and Rachell Martinez-Ramirez

Time	Speaker	Title	Lab
11:00 am	Alyssa Carter	Utilizing an Oxadiazolone-Based Covalent Inhibitor to Validate FabH as a Relevant Target in <i>C. difficile</i> Infection	Bogyo
11:15 am	Alex Jiawen Hu	An Academic-Industrial Partnership: The 20S Proteasome as a Drug Target for Treating Schistosomiasis	Caffrey
11:30 pm	Marcel Zimanyi	Antibody Reveals Conformational Latch Regulating Dimerization in β - and γ -Herpesvirus Proteases	Craik
11:45 pm	Lunch	Location: Conference Room (pizza & sandwiches)	



Chairs: Lynna Baryakova and Deokhee Kang

Time	Speaker	Title	Lab
1:00 pm	Clifford Luke	Lysoptosis: a conserved lysosome-dependent cell death pathway mediated by serpins.	Outside Expert (Washington Uni, St Louis)
1:30 pm	Hai Phan	Building Covalent Theranostic Agents from Activity-Based Probe (ABP) Scaffolds	Bogyo
1:45 pm	Patrick Exconde	DIPTAR: A Modular Synthetic Receptor Platform for High-Throughput Functional Discovery of Ubiquitin-Proteasome System Regulators	Taabazuing
2:00 pm	Taylor Bader	Applying Multiple Proteome Extraction Methodologies to Define Alterations of the Degenerated Intervertebral Discs Collected From Spinal Deformity Surgeries.	Dufour
2:15 pm	Shawn Vinogradsky	Development of a Promiscuous ByeTAC for the Degradation of MST3 and GSPT1	Trader
2:30 pm	Kristyna Blazkova	Identification of microbial proteases that activate PAR-2 to control barrier function, pain and inflammation in the gut	Bogyo
3:00 pm		Free time	
7:30 pm	Dinner	Pablito's Mexican Bar & Grill	
	Awards	Palm Canyon Hotel & RV Resort	

HALFMOON BAY AWARD



Wednesday, April 15th

9:00 am

Departure



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