

**Monday July 11, 2022**

Walter Gage Residence  
5959 Student Union Boulevard

Lobby

**Arrival and Registration**

3:00pm-7:00pm

**Tues July 12, 2022**

Breakfast for attendees in  
conference accomodations

Walter Gage Residence  
Isabelle MacInnes Ballroom

**Time**

7:30am-9:00am

Registration  
6133 University Boulevard

The Nest Great Hall Foyer  
AMS Student Nest

8:00am-9:00am

Opening remarks

The Nest Great Hall South

9:00am-9:10am  
9:10am-9:20am  
9:20am-9:30am

Rickey Yada - Dean of the Faculty of Land and Food Systems, UBC  
Diethard Mattanovich, ICY chair  
Vivien Measday, ISSY36 organizer

*Session 1**Ecology & Biogeography*

9:30am-9:55am

Andre Lachance

Forty years of yeast biogeography

*Chair: Andre Lachance*

9:55am-10:20am  
10:20am-10:45am

Daniela Delneri  
Matthew Goddard

Phenotypic analysis and plasticity of cold-tolerant genes in different species  
belonging to the Saccharomyces genus  
What drives yeast community assemblage?

10:45am-11:00am

Evodia Setati

Hyphopichia pseudoburtonii, a mycelial yeast with biocontrol potential against  
grape bunch rot-associated moulds

11:00am-11:15am  
11:15am-11:30am

Chris Curtis  
Vaskar Mukherjee

Population genomics of Brettanomyces bruxellensis wine isolates from New  
Zealand  
Bioprospecting at an unprecedented scale with RISE processum AB

coffee/tea

11:30am-12:00pm

Kenneth Wolfe - EMBO  
Keynote Speaker

Killer toxins and evolution of the genetic code in yeasts

Keynote -1

Phil Hieter introduces

12:00pm-1:00pm

Lunch

1:00pm-2:30pm

*Session 2**Wine Fermentation*

2:30pm-2:55pm

Vladimir Jiranek

Selecting and favouring non-Saccharomyces yeast to tailor winemaking  
outcomes

*Chair: Vladimir Jiranek*

2:55pm-3:20pm

Jean-Luc Legras

Exploring yeast adaptation to the grape must

3:20pm-3:35pm

Irene de Guidi

Can ecology explain variations in H2S production?

3:35pm-3:50pm

Rafael Álvarez-Rafael

Phenotypic diversity in the genus Saccharomyces for winemaking

		3:50pm-4:05pm	Carmen Becerra	Substrate-Binding Sites in Fungal Oligopeptide Transporters Are Highly Conserved Among Distant Groups of Yeasts and Filamentous Fungi
coffee/tea		4:05pm-4:30pm		
Session 3	Evolutionary Genomics Chair: Jose Paulo Sampaio	4:30pm-4:55pm	Jose Paulo Sampaio	Understanding ecology, populations and domestication across yeast genera
		4:55pm-5:20pm	Chris Todd Hittinger	The making of yeast genomic and metabolic diversity
		5:20pm-5:35pm	Laetitia Maroc	Laboratory micro-evolution in <i>Candida glabrata</i>
		5:35pm-5:50pm	John Wolters	Gene Presence Networks Predict Novel Respiratory Genes from Multiple Losses of Mitochondrial Complex I across Yeasts
		5:50pm-6:05pm	Carignan Bailey - Lallemand	Targeted brewing solutions through exploitation of classical and modern strain development techniques
Welcome Reception	Alumni Centre - Jack Poole Hall	7:00pm-10:30pm		
<b>Wed July 13, 2022</b>				
Breakfast for attendees in conference accomodations	Walter Gage Residence Isabelle MacInnes Ballroom	7:30am-9:00am		
Session 4	The Nest Great Hall South Genome Engineering in non-traditional yeasts Chair: Anne Gschaedler	9am-11am		
		9am-9:25am	John Morrissey	Genomic approaches to explore and exploit <i>Kluyveromyces marxianus</i>
		9:30am-9:55am	Paola Branduardi	CRISPR-Cas9 Gene Editing in the Hybrid Yeast <i>Zygosaccharomyces parvii</i> : Optimizations and Findings
		10am-10:25am	Diethard Mattanovich	Metabolic engineering of <i>Komagataella phaffii</i> to serve a C1 bioeconomy
		10:30am-10:45am	Milan Certík	Genetically engineered <i>Yarrowia lipolytica</i> as a useful tool for production of lipophilic compounds
		10:45am-11am	Bernd Mitic	A hidden methanol and CO2 assimilation pathway in the methylotrophic yeast <i>Komagataella phaffii</i> – the reductive glycine pathway
coffee/tea		11:am-11:30am		
Keynote -2	Brenda Andrews introduces	11:30am-12:30pm	Corey Nislow	Yeast as the biological breadboard for innovative technologies
Lunch		12:30pm-2pm		

<b>FEMS YR Editorial Board meeting</b>		1:10pm-1:50pm	Rm 2311, The Nest	
<i>Session 5</i>	<i>Yeast Culture Collections</i>	2pm-2:25pm	Kyria Boundy-Mills	Insider Tips to Maximize Research Benefits from Yeast Culture Collections
	<i>Chair: Kyria Boundy-Mills</i>	2:30pm-2:55pm	Juncai Ma	WDCM Global Cooperation: Global Catalogue of Microorganisms (GCM) and 10K Type Strain Sequencing Project
		3:00pm-3:30pm	Vincent Robert	Yeasts and databasing
<i>coffee/tea</i>				
<i>Session 6</i>	<i>Synthetic Biology</i> <i>Chair: Verena Siewers</i>	4:00pm-4:25pm	Verena Siewers	Metabolite biosensors in yeast metabolic engineering
		4:25pm-4:50pm	Luciana Lazar-Stefanita	Stable twin rDNA loci form a single nucleolus in brewer's yeast
		4:50pm-5:05pm	Rebecca Shapiro	Development and application of CRISPR-based tools for functional genomic studies in the yeast pathogen <i>Candida albicans</i>
		5:05pm-5:25pm	David Stuart	Engineering <i>Lipomyces starkeyi</i> for the production of fatty alcohols from mixed carbon feedstock.
		5:25pm-5:40pm	Luca Torello Pianale	Biosensor-mediated monitoring of yeast intracellular state during bioprocesses
		5:40pm-5:55pm	Celina Borgstrom Tufvegren	Adipic acid production from glucose in recombinant <i>Saccharomyces cerevisiae</i>
<b>Posters with beverages and snacks</b>		6:00pm-7:30pm		
<b>Commissioner Dinner</b>	<b>8pm-11pm</b>	7:30pm onwards	Free time for dinner	
<b>Thurs July 14, 2022</b>				
Breakfast for attendees in conference accomodations	Walter Gage Residence Isabelle MacInnes Ballroom	7:30am-9:00am		
	The Nest Great Hall South			
<i>Session 7</i>	<i>Evolutionary Genomics</i>	9:00am-9:25am	Renee Geck	High throughput testing of pharmacogene variants using yeast activity assays
	<i>Chair: Chris Todd Hittinger</i>	9:30am-9:55am	Joseph Schacherer	Species-wide exploration of the inherited gene expression variation in yeast

		10:00am-10:15am	Ana Pontes	Is MEL gene expansion involved in ecological adaptation in <i>S. cerevisiae</i> ?
		10:15am-10:30am	Francisco Cubillos	Structural variants define the fermentation potential across strains in <i>Lachancea cidri</i>
		10:30am-10:45am	Masako Takashima	Investigation of the orthologs that characterize Ascomycota and Basidiomycota
		10:45am-11:00am	Linda Horianopoulos	Identification of yeasts with high glycolytic flux for the development of novel cell factories
coffee/tea		11:00am-11:30am		
Keynote -3	Rahul Singh from Genome BC introduces	11:30am-1:00pm	Jay Keasling	Production of monoterpene indole alkaloids in yeast
	Panel Discussion		John Husnik	Renaissance Bioscience
			Oleg Tyurin	Bioboost Synbio Consulting
			Linda Horianopoulos	Dr. Chris Todd Hittinger's lab
Lunch		1:00pm-2:30pm		
Session 8	Food and Beverage Fermentation Chair: Hiroshi Takagi	2:30pm-2:55pm	Hiroshi Takagi	Functional Amino Acid Engineering in Yeast: Application to Brewing of Alcoholic Beverages
		2:55pm-3:20pm	Lene Jespersen	Beneficial yeasts in food - <i>Debaryomyces hansenii</i> as a hidden gem?
		3:20pm-3:35pm	Gitte Knudsen	Non-Saccharomyces yeasts for beer production: Safety assessment of <i>Pichia kluyveri</i>
		3:35pm-3:50pm	Neža Cadež	Evolutionary engineering of autochthonous cider yeast strain for buckwheat beer fermentation
		3:50pm-4:05pm	Francisco Carrau	Biology of <i>Hanseniaspora vineae</i> and its potential contribution to understand yeast adaptations for food fermentation.
coffee/tea		4:00pm-4:30pm		
Session 9	Remembering Lex Scheffers: FEMS Yeast Research Yeast Physiology session Chair: John Morrissey	4:30pm-4:45pm	John Morrissey	Introduction to FEMS Yeast Research and Lex Scheffers
		4:45-5:00pm	Hana Sychrová	Trk1 Transporters in Yeast Cell Physiology
		5:00pm-5:15pm	Xiang Li	Correlation between cell morphology and metabolism and its underlying mechanism in yeasts
		5:15pm-5:30pm	Robert Mans	Engineering sugar transport to alter yeast physiology and increase product yields in yeast



5:30pm-5:45pm Maxime den Ridder  
 5:45pm-6:00pm Andreas Gombert  
 6:00pm-6:15pm Nuno Mira  
 6:15pm-6:30pm Paul Le Montagner

Temporal proteome dynamics of (minimal glycolysis) yeast during aerobic and anaerobic growth  
 The maximum specific growth rate ( $\mu_{MAX}$ ) of *Saccharomyces cerevisiae*: so often used so seldom put into perspective  
 Comparative genomics unveils fundamental traits on the biology and physiology underlying the foe/friend behaviour in wine-making of Yeasts belonging to the Saccharomycotina family  
 Bioadhesion properties of *Brettanomyces bruxellensis*: on the origin of wine spoilage

Posters with beverages and snacks  
 6:30pm-8:00pm  
 8pm onwards

Free Time for Dinner

**Friday July 15, 2022**

Breakfast for attendees in conference accommodations  
 Walter Gage Residence  
 Isabelle MacInnes Ballroom

7:30am-9:00am

The Nest Great Hall South



*Session 10*

*Food and Beverage Fermentation*

*Chair: Lene Jespersen*

9:00am-9:25am Florian Bauer  
 9:30am-9:55am Virginie Galeote  
 10:00am-10:15am Graeme Walker  
 10:15am-10:30am Nikola Gyurchev  
 10:30am-10:45am Maria Joao Sousa  
 10:45am-11:00am Jules Harrouard

The wine yeast ecosystem: Molecular signatures of interactions between species  
 Diversity of the Fungal Oligopeptide Transporters in yeast and impact of oligopeptide uptake during wine fermentation  
 Whisky fermentations with non-Saccharomyces yeasts  
 BEYOND SACCHAROMYCES PASTORIANUS FOR MODERN LAGER BREWS: EXPLORING NON-CEREVISIAE SACCHAROMYCES HYBRIDS WITH HETEROTIC MALTOTRIOSE CONSUMPTION AND NOVEL AROMA PROFILE  
*Torulasporea delbrueckii* phenotypic and metabolic profiling for wine and bread industries and its underlying molecular bases  
 Phenotypic plasticity of the yeast species *Brettanomyces bruxellensis* across fermentation processes: toward the identification of traits underlying adaptation to anthropic environments?

Coffee  
 11:00am-11:30am

*Keynote -4*  
 Diethard Mattanovich introduces

11:30am-12:30pm Paula Gonçaves

Understanding the role for horizontal gene transfer in reshaping yeast metabolism

Lunch 12:30pm-2pm

*Session 11* *Industrial Ethanol Production* 2:00pm-2:25pm  
*Chair: Charles Abbas* 2:25pm-2:50pm  
2:50pm-3:05pm  
3:05pm-3:20pm

Charles Abbas

Andrei Sibirny

John Evans

Johan Thevelein

Recent Development of Commercial Yeast Strains for Fuel Ethanol  
Regulation of xylose alcoholic fermentation in the thermotolerant yeast *Ogataea polymorpha* and construction of the advanced fermenting strains  
Assessing population dynamics during adaptive laboratory evolution using microsatellite PCR analysis  
Whole-genome transformation of yeast promotes a single causative host strain mutation absent from the donor genomic DNA that enhances tolerance to the selective condition applied

coffee/tea 3:35pm-4:00pm

*Session 12* *Functional Genomics* 4:00pm-4:25pm  
*Chair: Thibault Mayor* 4:25pm-4:50pm  
4:50pm-5:05pm  
5:05pm-5:20pm  
5:20pm-5:35pm  
5:45pm-6:00pm

Lieselotte Vermeersch

Brenda Andrews

Linghuo Jiang

Adrianna Skoneczna

Thibault Mayor

Why is the yeast lag phase so long?  
From phenotypes to pathways: global analysis of cellular networks using systematic yeast genetics and single cell image analysis  
Discovery of novel regulatory mechanisms in calcium/calcineurin signaling through a functional genomics approach  
Functional genomics reveals the significance of vesicular trafficking for telomere length control  
Probing the genetic diversity of yeast to elevate heterologous protein expression  
CLOSING CEREMONIES including announcement of FEMS Yeast Research and GSA poster awards

**ISSY36 Banquet** Sage Restaurant 7:00pm-12am  
6331 Crescent Rd, UBC

**Sat July 16, 2022** **Time**  
Breakfast for attendees in conference accomodations 7:30am-10:00am  
Walter Gage Residence  
Isabelle MacInnes Ballroom