

## **Programme**







DAY 1, Tuesday 9 November		
Session 1	WELCOME, PLENARY LECTURE I, AND VIDEO PITCH PRESENTATIONS Chairperson: Stefan Björklund	
9.00-9.10	Welcome and opening of the KBC DAYS 2021 Stefan Björklund Scientific Coordinator of KBC	
9.10-9.15	Video research pitch presentations: Sustainable biomass production for enhanced energy and food security in lowand middle-income countries Natxo Garcia Lopez, Department of Applied Physics and Electronics, Umeå University Microbes, Mucus and Burgers Sandra Holmberg, Department of Molecular Biology, Umeå University	
9.15-10.00	Plenary lecture I: Interaction between diet, gut bacteria and the intestinal mucosal barrier Björn O. Schröder Department of Molecular Biology and Laboratory for Molecular Infection Medicine Sweden (MIMS), Umeå University, Sweden	
10.00-10.05	Video research pitch presentations (continued):     Investigating anti-bacterial resistance     Saba Shahzad, Department of Medical Biochemistry and Biophysics, Umeå University     Micropollutants removal and recyclability of biobased adsorbent using     hydrothermal degradation     Pierre Oesterle, Department of Chemistry, Umeå University	
10.05-10.15	"Excellence by Choice" Postdoctoral Programme  Teresa Frisan  Department of Molecular Biology and Deputy Director of Umeå Centre for Microbial Research  (UCMR), Umeå University	
10.15-10.25	Video research pitch presentations (continued):  Teatime for Science - How to use tea to improve climate models  Sarah Schwieger, Department of Ecology and Environmental Science (EMG), Umeå  University  Vulnerability to Malaria with climate change in Mozambique  Chaibo Jose Armando, Department of Public Health and Clinical Medicine, Umeå University  Forever chemicals in household waste - a never-ending story?  Sofie Björklund, Department of Chemistry, Umeå University	
10.25-10.35	Discussions with the video research pitch presenters	
10.35-10.45	Coffee break	
Session 2	NEW FACULTY MEMBERS, AWARD AND GRANT RECIPIENTS AT KBC Chairperson: Stefan Björklund	
10.45-11.00	Shining a spotlight on the hidden part of plants Gesche Blume-Werry Department of Ecology and Environmental Sciences, Umeå University	

11.00-11.15	Towards better understanding of exoplanetary spectra Aleksandra Foltynowicz Matyba Department of Physics, Umeå University
11.15-11.30	Unchecked nick ligation can promote localized genome re-replication  Erik Johansson
	Department of Medical Biochemistry and Biophysics, Umeå University
11.30-11.45	Mapping bacterial functional proteomes with thermal proteome profiling
	André Mateus  European Molecular Biology Laboratory, Genome Biology Unit, Heidelberg, Germany, and  Department of Chemistry, Umeå University
11.45-12.00	Artificial membranes innovative role in redefining and transforming chemical engineering concepts  Naser Tavajohi
	Department of Chemistry, Umeå University
12.00-13.00	Lunch break
Session 3	PANEL DISCUSSION
13.00-14.30	Panel discussion "Wood resources, bioenergy and biodiversity"
	Moderator: Malin von Essen, Writer, Facilitator and Moderator, Malin von Essen AB Panel members:  Stina Jansson, Associate professor, Department of Chemistry, Umeå University Bengt-Gunnar Jonsson, Professor, Department of Natural Sciences (NAT), Mid Sweden University, Sundsvall, and Guest Professor, Department of Wildlife, Fish and Environmental Studies, SLU, Umeå Mårten Larsson, Head of bioenergy policy, Swedish Forest Industries Federation, Stockholm Tomas Lundmark, Professor, Department of Forest Ecology and Management, SLU, Umeå Thomas Kraft, PhD, Program Manager, Skogforsk, Tree breeding, Svalöv Anders Telenius, Associate Professor, Department of Bioinformatics and Genetics, Swedish Museum of Natural History, Stockholm, Sweden; Swedish Biodiversity Data Infrastructure (SBDI)
14.30-14.45	Coffee break
Session 4	PLENARY LECTURE II AND NEW FACULTY MEMBERS, AWARD AND GRANT RECIPIENTS AT KBC (continued) Chairperson: Judith Lundberg-Felten
14.45-15.30	Plenary lecture II: Microalgae: diversity in morphology and applications  Luísa Gouveia  LNEG - UBB - National Laboratory of Energy and Geology I.P., Bioenergy and Biorefineries  Unit, and GREENCOLAB - Green Ocean Technologies and Products Collaborative Laboratory,  CCMAR, Algarve University, Portugal
15.30-15.45	More than 'just a number,' differences between juveniles and adults shield ecological communities from collapse  André M de Roos

	Department of Biodiversity and Ecosystem Dynamics, University of Amsterdam, The Netherlands, and Department of Ecology and Environmental Science, Umeå University
15.45-16.00	Nanophotonics meets biology Nicolò Maccaferri Department of Physics and Materials Science, University of Luxembourg, Luxembourg, and Department of Physics, Umeå University
16.00-16.15	Year-round climate feedbacks of winter phenological (mis)matches of plants and microbes across the Arctic Ellen Dorrepaal Department of Ecology and Environmental Science, Umeå University, and CIRC, Abisko Naturvetenskapliga Station
16.15-16.30	Enterobacterial stress response protein triad: does form follow function?  Irina Gutsche  Institute of Structural Biology, Grenoble, France and Umeå Core Facility for Electron Microscopy (UCEM), Umeå University
16.30-16.45	New alternatives to combat Antimicrobial Resistance (AMR) Fredrik Almqvist Department of Chemistry, Umeå University
16.45-17.00	Break
17.00	Mingle at KBC

Session 5	PLENARY LECTURE III Chairperson: Stefan Björklund
8.40-9.00	Applying for external funding? We can help! - Learn about how you can get help with applying for and handling research grants at UmU and SLU Caroline Grabbe, Grants Office, SLU Anders Wennström, Research Support and Collaboration Office, Umeå University
9.00-9.45	Plenary lecture III: Exploring the links between forest diversity, ecosystem functioning and ecosystem services  Julia Koricheva  Department of Biological Sciences, Centre for Ecology, Evolution and Behaviour, Royal Holloway, University of London, UK
9.45-10.00	Coffee break
Session 6	UMEÅ POSTDOC SOCIETY Chairperson: Karim Rafie
10.00- 10.10	UPS - Who we are and what we do Dorothee Langenbach, Department of Molecular Biology, Umeå University and Umeå Postdoc Society Sean Bisset, Department of Molecular Biology, Umeå University and Umeå Postdoc Society
10.10- 10.25	Battles between predators and prey may have shaped ocean life as much as mass extinctions Alexis Rojas-Briceno Department of Physics, Umeå University
10.25- 10.40	Peatlands: Carbon, Volcanoes, Trees and Drying Joshua Ratcliffe Unit for Field-based Forest Research, Vindeln, SLU
10.40- 10.55	Effects on Aedes aegypti mosquitoes after sublethal exposure to a Chromobacterium-derived biopesticide Cecilia Springer Engdahl Department of Clinical Microbiology, Umeå University
10.55- 11.10	Cryo-EM structures of two Staphylococcal self-loading helicases reveal unexpected insights for translocation Cuncun Qiao Department of Medical Biochemistry and Biophysics, Umeå University
11.10- 11.25	Towards a structural understanding of the Type 4 Secretion System ATPases in Grampositive bacteria Saba Shahzad Department of Medical Biochemistry and Biophysics, Umeå University

11.25-	Microsporidia: Divergent evolution underlies a unifying structural theme?
11.40	Himanshu Sharma
	Department of Molecular Biology, Umeå University
11.40- 12.00	Host a PI Moderator: Sophie Tronnet, Department of Molecular Biology, Umeå University and Umeå Postdoc Society interviewees: Lars-Anders Carlson, Department of Medical Biochemistry and Biophysics, Umeå University Francesca Aguilo, Department of Molecular Biology and Wallenberg Centre for Molecular
	Medicine at Umeå University (WCMM)
12.00- 13.00	Lunch break
Session 7	INFRASTRUCTURE PRESENTATIONS Chairperson: Xiao-Ru Wang
13.00- 13.10	Introduction: KBC infrastructure support Stefan Björklund Scientific Coordinator of KBC
13.10- 13.20	HPC2N: High-performance computing resources @ Umeå Paolo Bientinesi Department of Computing Science and Director of the High Performance Computing Centre North (HPC2N), Umeå University
13.20- 13.30	SLU Umeå research infrastructure Michael Finell Department of Forest Biomaterials and Technology (BTK), SLU
13.30- 13.40	Systematic forest and landscape data Anna-Lena Axelsson Department of Forest Resource Management, SLU
13.40- 13.45	KBC research infrastructure Linda Sandblad Department of Chemistry, Umeå University
13.45- 14.15	<ul> <li>KBC infrastructure from a user perspective</li> <li>Moderator: Linda Sandblad, Department of Chemistry and Director of Umeå Core Facility for Electron Microscopy (UCEM), Umeå University</li> <li>Panel members: <ul> <li>Barbara Sixt, Department of Molecular Biology and Molecular Infection Medicine Sweden (MIMS), Umeå University</li> <li>Forough Momayez, Department of Chemistry, Umeå University</li> <li>Magnus Wolf-Watz, Department of Chemistry, Umeå University</li> <li>Doreen Yu-Tuan Huang, Department of Ecology and Environmental Sciences</li> </ul> </li> </ul>
14.15- 14.45	Coffee break and time to  - visit Expo area and discuss with infrastructure representatives  - sign up for the offered infrastructure tours in respective Expo areas

Session 8	NEW FACULTY MEMBERS, AWARD AND GRANT RECIPIENTS AT KBC (continued) Chairperson: Stefan Björklund
14.45- 15.00	Sensorimotor control and physical activity in human musculoskeletal and neurological movement conditions Charlotte Häger Department of Community Medicine and Rehabilitation; Physiotherapy and The Clinic of Orthopedic Surgery, Norrlands University Hospital, Umeå University
15.00- 15.15	Panacea: an antitoxin domain to neutralise any protein toxin?  Gemma Atkinson  Department of Molecular Biology, Umeå University and Department of Experimental Medical Science, Lund University
15.15- 15.30	Martian Analogue Soils Interacting with Brines: How Brines Can Play a Role in Modern Martian Geochemistry  Merve Yesilbas  Department of Chemistry, Umeå University
15.30	Concluding remarks Stefan Björklund  Announcement of the Video Research Pitch presentation prize winner (sponsored by Agrisera) Announcement of the best Postdoc talk prize winner Announcement of the Photo competition prize winner