



ExRNA research and innovation to improve human and plant health

Center for Structural Systems Biology

Hamburg, Germany

Wednesday 11th June 2025

Session 1: ExRNA release and function: new discoveries and open questions

Chair: Esther Nolte-'t Hoen

12.00	Amy Buck (University of Edinburgh) Arne Weiberg (University of Hamburg) Welcome and introduction to the COST Action & Meeting
12.10	Esther Nolte-'t Hoen (Utrecht University) Transport of RNA viruses via extracellular vesicles: lessons for the exRNA field
12.45	Lorenz Oberkofler (Ludwig Maximilian University Munich) Extracellular proteins facilitate fungal EV entry into plant cells to induce cross-kingdom RNA interference
13.00	Ryan Flynn (Harvard University) Cell surface glycoRNA biology
13.35	Light bites & refreshments
14:30	Sevki Aybars Turel (Sabanci Universitesi) Mapping the exRNA-PATH network
14.35	Yilian Ding (John Innes Centre) Decoding RNA language in plants

15.10	Benjamin Koch (The Sainsbury Laboratory) Distinct subpopulations of extracellular vesicles are induced by pathogen infection in Arabidopsis and inhibit fungal infection, but do not mediate the transfer of RNA
15.25	Juan Pablo Tosar (Institut Pasteur de Montevideo) Naked extracellular RNA stability, uptake, and recognition
16:00 – 16:15	Poster pitches
16:15-17:15	Panel discussion over Drinks & Nibbles
19:00	Dinner - The Röbbek Eatery Address: Röbbek 2A, 22607 Hamburg phone number: 0172 3008888
Thursday 12th June 2025	
Session 2: Integrating exRNA biology and microbiology	
09:00	Chair: Kriton Kalantidis (IMBB University of Crete) Introduction to Session
09.05	Ronelle Roth (University of Oxford) Exploring EV-mediated Cross-kingdom RNAi in the Arbuscular Mycorrhizal Symbiosis
09:40	Michail Kotsyfakis (IMBB University of Crete) Extracellular Vesicle-associated noncoding RNAs in Ixodes ricinus tick saliva and their role in tick-host interactions
09.55	Guihelm Janbon (Institut Pasteur Paris) Study of the extracellular transcriptome in Cryptococcus
10:10	Poster pitches
10:45-13:15	Poster session & Lunch break
13:15	Katharina Markmann (Julius-Maximilians-University Würzburg)

	Systemic control of root architecture adaptation to biotic and abiotic stimuli through mobile miRNAs
13:50	Liam Lebeau (IBENS, Paris) Mechanisms by which plant and synthetic small non-coding RNAs direct gene silencing in bacteria
14:05	Meenu Singla (Indiana University) Cross-kingdom RNA interference between plants and fungal pathogens is initiated by leaf surface RNA
14:20	TBD
14:45	Coffee break
Session 3: Obstacles to overcome in exRNA in therapeutics & exRNA delivery Chair: Lionel Navarro	
15:15	Introduction to Session
15:20	Dave Carter (Evox Therapeutics Limited, Oxford) <i>In vivo</i> Application of Extracellular Vesicle-Based Genome Editing Technology
15:55	Pieter Vader (Utrecht University) Extracellular vesicle-inspired carriers for therapeutic RNA delivery
16:30	Antonio Emidio Fortunato (ENgreen, Bordeaux) Using Chlorella vulgaris as a novel production scaffold for antibacterial small RNAs encapsulated in extracellular vesicles
16:45	Panel discussion over drinks Discussion and integration of key questions from both fundamental and applied fields.
	Dinner on own
Friday 13th June	
Session 4: Accelerating impact and integration of exRNA knowledge and innovation	

Chairs: Amy Buck, Lionel Navarro

09.00	Amy Buck (University of Edinburgh) Lionel Navarro (IBENS, Paris) Introduction
09.10	Christine Happel (NIH) Harnessing advances in exRNA biology for clinical applications
09.45	Ken Wittwer (John Hopkins University) TBC
10.20	Coffee break
10:40	Mathieu Bouthémy (France Biotech) Deploying transverse technologies to serve the One Health concept
10:55	Senator Vanina Paoli-Gagin European motion on exRNAs/EVs
11:10	Panel Discussion
12:00	CLOSE OF MEETING