SCIENTIFIC PROGRAM (first complete version) -- OLDM2023

Palacio Miramar, Donostia-San Sebastian, Basque Country, Spain --- Oct 2-4 (2023)

TIME / DAY	Monday, Oct 2	Tuesday, Oct 3	Wednesday, Oct 4
8:00 - 9:00	Registration & welcome (krm)		
9:00 - 10:00	- Jack Szostak	- Karin Oberg	- Ram Krishnamurthy
10:00 - 10:30	- Edoardo Gianni (OC1)	- Grégoire Danger (OC6)	- Andrés dl Escosura (OC11)
10:30 - 11:00	- Christof Mast (OC2)	- Martina Preiner (OC7)	- Yannick Geiger (OC12)
11:00 - 11:30	Coffee break	Coffee break	Coffee break
11:30 - 12:15	- Matthew Powner	- Dora Tang	- Peter Walde
12:15 - 12:45	- Klara Hlouchova (OC3)	- Anju Tomar (OC8)	- Nathalie Katsonis (OC13)
12:45 - 13:00	- Short (2min) poster comm.	- Short (2min) poster comm.	- Short (2min) poster comm.
13:00 - 14:30	Lunch break	Lunch break	Lunch break
14:30 - 15:30	- Irene Chen	- Daniel Segré	- Claudia Bonfio
15:30 - 16:00	- Antonio Lazcano (OC4)	- Emilie Werner (OC9)	- Nemanja Cvjetan (OC14)
16:00 - 16:15	- Short (2min) poster comm.	- Short (2min) poster comm.	- Short (2min) poster comm.
16:15 - 16:45	Coffee break	Coffee break	Coffee break
16:45 - 17:30	- Joana Xavier	- Joseph Moran	- Sheref Mansy
17:30 - 18:00	- Quoc Phuong Tran (OC5)	- Robert Pascal (OC10)	- Alvaro Moreno (OC15)
18:00 - 18:30			Recap & conclusion (krm)

KEYNOTES: 45 min + 15 min (questions/debate) // Invited: 35 min + 10 min (q/d) // OC: 25 min + 5 min (q/d)

Scientific Program

Monday, Oct. 2

8:00 – Registration + poster setup (day 1)

8:30 – Welcome by Kepa Ruiz-Mirazo

Early morning session -- Chairperson: Sheref Mansy

9:00 – Jack Szostak (Opening Keynote Lecture): Why did biology begin with RNA and not some other genetic material?

10:00 – Edoardo Gianni (Oral Comm. 01): In vitro evolution of ribozymes for selfsynthesis

10:30 – **Christof Mast** (Oral Comm. 02): Physical non-equilibrium environments as prebiotic selector

11:00 - Coffee Break

Late morning session -- Chairperson: Joseph Moran

11:30 – **Matthew Powner** (Invited Speaker): On the cyanosulfidic origins of peptides, nucleotides, and metabolism

12:15 - Klara Hlouchova (Oral Comm. 03): Why these amino acids and not others?

12:45 – Short Poster Presentation (7 -- 2min each)

13:00 – Lunch Break

Early afternoon session -- Chairperson: Dora Tang

14:30 – Irene Chen (Keynote Lecture): Keeping it together: from protocells to phages

15:30 – Antonio Lazcano (Oral Comm. 04): On the nature of cellular genomes before DNA: insights from the RNA virosphere

16:00 – Short Poster Presentation (up to 7 -- 2min each)

16:15 – Coffee Break

Late afternoon session -- Chairperson: Robert Pascal

16:45 – Joana Xavier (Invited Speaker): The future of autocatalysis in origins research

17:30 – Quoc Phuong Tran (Oral Comm. 05): Nonlinear dynamics meet biomolecule synthesis- How feedstocks modulate kinetics and product distributions in a prebiotic autocatalytic reaction

18:00 – Closing + poster pickup (day 1)

Tuesday, Oct. 3

8:30 – Poster setup (day 2)

Early morning session -- Chairperson: Peter Walde

9:00 – Karin Oberg (Keynote Lecture): How to make a habitable planet: an astrochemical perspective

10:00 – **Grégoire Danger** (Oral Comm. 06): Origin and composition of the early Earth's reservoir of exogenous organic matter and its impact on the emergence of prebiotic chemical systems

10:30 – **Martina Preiner** (Oral Comm. 07): Mineral surfaces as protoenzymes: how to connect cofactors, rock pores and heterogeneous catalysis

11:00 – Coffee Break

Late morning session -- Chairperson: Matthew Powner

11:30 – Dora Tang (Invited Speaker): Possible role of coacervates during the origin of life

12:15 – Anju Tomar (Oral Comm. 08): UV-driven reduction of cysteinyl peptides with cyclic disulfide molecules

12:45 – Short Poster Presentation (7 -- 2min each)

13:00 – Lunch Break

Early afternoon session -- Chairperson: Daniele De Martino

14:30 – Daniel Segré (Keynote Lecture): Metabolism as memory in the origin of life

15:30 – Emilie Werner (Oral Comm. 09): Metal/ADP complexes promote phosphorylation of ribonucleotides and ribonucleosides

16:00 - Short Poster Presentation (7 -- 2min each)

16:15 – Coffee Break

Late afternoon session -- Chairperson: Antonio Lazcano

16:45 – **Joseph Moran** (Invited Speaker): Nonenzymatic metabolic reactions and life's origins

17:30 - Robert Pascal (Oral Comm. 10): On the evolutionary role of metabolism

18:00 – Closing + poster pickup (day 2)

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Wednesday, Oct. 4

8:30 – Poster setup (day 3)

Early morning session -- Chairperson: Juli Peretó

9:00 – Ram Krishnamurthy (Keynote Lecture): Prebiotic Systems Chemistry --Reinventing the chemistries leading to origins of life

10:00 – Andrés de la Escosura (Oral Comm. 11): Programming catalytic and replication functions with minimal nucleobase sequences

10:30 – Yannick Geiger (Oral Comm. 12): Chiral selective self-replicators

11:00 – Coffee Break

Late morning session -- Chairperson: Rudrarup Bose

11:30 – Peter Walde (Invited Speaker): Iron porphyrins as potentially prebiotic catalysts? 12:15 – Nathalie Katsonis (Oral Comm. 13): Chemical origin of lipids and protocells in the primeval ocean

12:45 – Short Poster Presentation (7 -- 2min each)

13:00 – Lunch Break

Early afternoon session -- Chairperson: Nino Lauber

14:30 – Claudia Bonfio (ESR Keynote Lecture): Shaping early life: primitive cells, primitive membranes

15:30 – Nemanja Cvjetan (Oral Comm. 14): Investigation of peroxidase-like catalytic activity of ferric heme b in aqueous micellar systems

16:00 – Short Poster Presentation (up to 7 -- 2min each)

16:15 – Coffee Break

Late afternoon session -- Chairperson: Joana Xavier

16:45 – **Sheref Mansy** (Invited Speaker): Formation, growth, and division of model protocells

17:30 – **Alvaro Moreno** (Oral Comm. 15): On the prebiotic origins of regulation: the problem of minimal metabolic robustness

18:00 – Recapitulation and conclusions -- Kepa Ruiz-Mirazo

18:30 – Closure + poster pickup (day 3)