Eloi Camprubi-Casas, Ph.D. CV

Training

Ph.D. in Chemistry - University College London, 2018

Advisors: Profs. Nick Lane and John Ward, Dept. of Genetics, Evolution and Environment

M.Res. in Molecular Biophysics - University College London, 2014

Advisor: Prof. Nick Lane, Dept. of Genetics, Evolution and Environment

B.S. in Biochemistry - Universitat Autonòma de Barcelona, 2012 Faculty of Biosciences

B.S. in Biology - Universitat Autonòma de Barcelona, 2011 Faculty of Biosciences

Professional appointments

2022 - present: Assistant Professor of Astrobiochemistry (tenure track)

Dept. of Biology & Dept. of Chemistry, University of Texas Rio Grande Valley, TX, US

2021 - 2022: Human Frontier Science Program Fellow

ELSI, Tokyo Institute of Technology, Tokyo, Japan (remotely)

2018 - 2021: Fellow of the Origins Center

Dept. of Earth Sciences, Utrecht University, Utrecht, The Netherlands

2013: Research Excellence Framework (REF) 2014 Assistant Manager University of Roehampton, London, UK

Publications

Please see Google Scholar for an updated list of my publications.

Honors and grants

Rising STARs grant, The University of Texas System, 2022

Fully-funded attendance to 'Bringing Chemistry, Physics and Computing to Life' *Ideas Lab* workshop, Templeton Foundation - UMBC, 2022

Cross-Disciplinary Fellowship, Human Frontier Science Program, 2021

Fellowship to build an Origins Simulator, Origins Center (NWA-NWO), 2017

IMPACT Award, University College London, 2014

Fellowship for PhD study in Europe, 'la Caixa' Foundation, 2014

Extraordinary prize to the highest-achieving student in Biochemistry B.S., Universitat Autònoma de Barcelona, 2012

Languages

English: Full proficiency

Spanish: Native Catalan: Native German: Beginner Japanese: Beginner

Synergistic activities

- 2022 present: Editor for a Special Issue of *Life* journal (2075-1729; MDPI) titled 'The Origin and Early Evolution of Life: Prebiotic Chemistry Perspective'
- 2021 present: Member of the Working Group on abiogenesis, European Astrobiology Institute
- 2021 present: Member of the Network of Researchers on the Chemical Evolution of Life (NoRCEL)
- 2021 present: Member of SAGANet
- 2021 present: Topic Editor for *Symmetry* journal (2073-8994; MDPI)
- 2021 present: Network for Ocean Worlds (NOW) Affiliate
- 2020: Planetary science PEPSci-2 consortium PhD selection panel
- 2020 present: Member of the international Origin of Life Early-career Network (OoLEN)
- 2018 present: Management committee for COST Action 'Chemobrionics'
- 2018 present: Member of the Origins Center

I am an active reviewer for scientific journals covering a wide range of topics. I often peer-review papers submitted to Nature, PNAS, Frontiers in Microbiology, Astrobiology, Life, Minerals, DNA and Cell Biology, and Evolution.

Teaching and supervising experience

I have supervised the work of 1 PhD, 6 master, and 5 bachelor students.

- 2020, 2019: Lecturing 'Planetology, an introduction' (Utrecht University, NL) to 3rd year Geosciences students
- 2017, 2016: Lecturing 'Energy and evolution' (UCL, UK) to 2nd year Biological Sciences students

Industrial innovation

- 2020: Co-development of pressure-resistant glass microfluidics chips with Micronit Micro Technologies B.V. (NL)
- 2020: Co-development of a <u>high-pressure hydrogen solubilisation unit</u> with Da Vinci Laboratory Solutions (NL)

Research expeditions

2018: Research expedition with Dr Helen King (Utrecht University) to Rio Tinto (Spain) to study phosphate O isotopes as a tracer of life in extreme environments (funding by EuroPlanet, 2017)

Conference organisation and chairing

- 2021: Workshop 'Out-of-Equilibrium Systems, Emergence and Life', Lorentz Center-Online (Leiden, NL)
- 2018: Symposium 'Origins Symposium Tracing life's emergence and preservation', Utrecht University (Utrecht, NL)
- 2018: Chaired 'Prebiotic chemistry', 1st Interdisciplinary Origin of Life meeting (Düsseldorf, Germany)
- 2018: Chaired 'The building blocks of life', European Astrobiology Network Association meeting (Berlin, Germany)
- 2015: Astrobiology Society of Britain (ASB06) conference, University College London-Birkbeck (London, UK)

2014: UCL's Origin of life open symposium, University College London (London, UK)

Conference contributions

Oral (IT = Invited Talk):

- 2022: IT The role of vectorial chemistry at life's emergence; MPIA's conference 'Towards Molecular Complexity: At the crossroads between astrophysics and biochemistry', Heidelberg (Germany)
- 2021: IT Metal sulphides as primitive energy-coupling systems on the early Earth and beyond; HPSTAR Beijing (China) seminar, Online
- 2021: IT Metal sulphides as primitive energy-coupling systems on the early Earth and beyond; 2nd Origins Center (Netherlands) conference, Online
- 2020: IT An experimental high-pressure Origins Simulator to study the emergence of life on Earth; 2ndInterdisciplinary Origin of Life (IOoL) meeting, Online
- 2019: IT An experimental high-pressure Origins Simulator to study the emergence of life on Earth; Netherlands Institute for Space Research (SRON) seminar, Groningen (Netherlands)
- 2019: IT An experimental high-pressure Origins Simulator to study the emergence of life on Earth; Earth-Life Science Institute (ELSI) seminar, Tokyo (Japan)
- 2019: IT An experimental Origins Simulator to study the emergence of life on Earth When, where, how and why; Centre de Biophysique Moléculaire (CBM) seminar, Orléans (France)
- 2019: IT An experimental Origins Simulator to study the emergence of life on Earth When, where, how and why; FEST (Utrecht University's Earth Sciences department seminar), Utrecht (Netherlands)
- 2019: An origins simulator Could natural pH gradients have powered the origin of life?; Nederlands Aardwetenschappelijk congress (NAC), Utrecht (Netherlands)
- 2019: IT An origins simulator Did vectorial electrochemistry power the emergence of life?; 30/80 meeting celebrating 30 years of the alkaline vent hypothesis and Mike Russell's 80th birthday, Granada (Spain)
- 2018: IT The emergence of life on Earth, Mars and beyond; KNGMG Kringendag/Symposium at the Vrije Universiteit, Amsterdam (Netherlands)
- 2018: IT An origins simulator Could pH gradients have powered the origin of life?; ExoOceans workshop by the International Space Science Institute (ISSI), Bern (Switzerland)
- 2018: IT An origins simulator Could natural pH gradients have powered the origin of life?; European Astrobiology Network Association (EANA) conference, Berlin (Germany)
- 2017: Alkaline hydrothermal vents as electrochemical reactors driving an autotrophic origin of life; The International Society for the Study of the Origin of Life (ISSOL) meeting, San Diego (USA)
- 2017: IT Acetyl phosphate and the origin of life at alkaline hydrothermal vents; Genetics, Evolution and Environment (GEE) department symposium UCL, London (United Kingdom)
- 2016: Alkaline hydrothermal vents as electrochemical reactors driving an autotrophic origin of life; European Astrobiology Network Association (EANA) conference, Athens (Greece)

Poster:

2018: An origins simulator - Origins Center's gamechanger 1; A roadmap for universal life workshop by the Lorentz Center, Leiden (Netherlands)

- 2018: Alkaline hydrothermal vents as electrochemical reactors driving an autotrophic origin of life; Earth-Life Science Institute (ELSI) 6th International Symposium, Tokyo (Japan)
- 2018: An origin of life simulator in order to mimic the emergence of proto-metabolism in the far-from-equilibrium conditions of Hadean Earth; Origins Center fellows kick-off meeting, Utrecht (Netherlands)
- 2017: Controversies on the origin of life; ASB07 meeting, Milton Keynes (United Kingdom)
- 2016: Controversies on the origin of life; AbGradE (Astrobiology Graduates in Europe) conference, Athens (Greece)
- 2015: Proto-metabolic flux leading to polymerisation at life's origin; ASB06 meeting, London (United Kingdom)
- 2015: Proto-metabolic flux leading to polymerisation at life's origin; EANA conference, Noordwijk (Netherlands)