

## Curriculum Vitae

Dr. Eloi Camprubi

[eloicamprubi.com](http://eloicamprubi.com)



### **Professional experience**

**09/01/2022 - present day:** University of Texas Rio Grande Valley (Texas, United States), Assistant Professor, School of Integrative Biological and Chemical Sciences.

**10/01/2021 - 07/31/2022:** Earth-Life Science Institute – Tokyo Institute of Technology (Tokyo, Japan), Postdoctoral Fellow of the Human Frontiers Science Program (HFSP), Project: Geo-electrochemical synthesis of organosulfur compounds as the hub of proto-metabolism.

**05/01/2018 - 09/15/2021:** Utrecht University – Origins Center (Utrecht, Netherlands), Postdoctoral Research Fellow of the Origins Center, Project: A high-pressure origins of life simulator.

**01/02/2013 - 09/12/2013:** University of Roehampton (London, UK), Research Excellence Framework (2014) Manager.

### **Languages**

English – Full proficiency

Spanish – Native

Catalan – Native

German – Beginner

### **Formal training**

PhD in Chemistry, **12/28/2018**, University College London (UK), Dissertation: The beginnings of proto-metabolism at the origin of life in alkaline hydrothermal vents (Supervisors: Profs Nick Lane and John Ward)

Masters of Research (MRes) in Molecular Biophysics and Structural Biology, **09/21/2014**, University College London (UK), 1<sup>st</sup> class honors grade

Bachelor in Biochemistry, **09/19/2012**, Autonomous University of Barcelona (Spain), 87% grade. Awarded the extraordinary prize to the highest-achieving student.

Bachelor in Biology, **09/20/2011**, Autonomous University of Barcelona (Spain), 76% grade

### **Publications** (h-index: 11, i10-index: 12, citations: 1230)

(under review) **Camprubi, E.**, Pearce, K. D. B., Preiner, M., The terrestrial abiotic synthesis of simple precursor molecules at the origin of life

(manuscript under rework) **Camprubi, E.**, Calma, K., Nan, J., Versluis, F., King, H., Plümper, O., Wolthers, M., ten Kate, I.L. A high-pressure microfluidics setup to study CO<sub>2</sub> reduction under Hadean Earth submarine hydrothermal conditions

(under review) Origin of Life Early-career Network (OoLEN), **Camprubi, E.** et al. What it takes to solve the Origins(s) of Life: An integrated review of techniques. (submitted; under review at Cell Reports Physical Science – Quartile 1 in Chemistry). Publicly accessible since August 2023 as an arXiv preprint (<https://arxiv.org/abs/2308.11665>) (citations 2)

**2025** Babaei, S., Arabi, N., Shi, X., Huber, G. W., **Camprubi, E.**, Zhao, J. Sustainable production of low-calorie tagatose via CaO-promoted galactose isomerization with CO<sub>2</sub> neutralization under ambient conditions. Industrial & Engineering Chemistry Research, XXX <https://doi.org/10.1021/acs.iecr.5c01664> Quartile 1 in Chemistry

**2024** Johansen, A., **Camprubi, E.**, van Kooten, E., Hoeijmakers, H. J. Self-oxidation of the atmospheres of rocky planets with implications for the origin of life. Astrobiology, 24(9):856-880 Quartile 1 in Space and Planetary Sciences (citations: 6)

**2023** Kopacz, N., Corazzi, M. A., Poggiali, G., von Essen, A., Kofman, V., Fornaro, T., van Ingen, H., **Camprubi, E.**, King H. E., Brucato, J. R., ten Kate, I. L. The photochemical evolution of polycyclic aromatic hydrocarbons and nontronite clay on early Earth and Mars. *Icarus*, 394(115437) Quartile 1-2 in Space and Planetary Science (citations: 13)

**2022 Camprubi, E.**, Muchowska, K. B., ten Kate, I. L., Markovitch, O., Otto, S. Prebiotic Chemistry: From dust to molecules and beyond. Chapter 2 in *New Frontiers in Astrobiology*, Elsevier Cambridge, 19-47 (peer-reviewed book chapter) (citations: 2)

**2022 Camprubi, E.**, Harrison, S. A., Jordan, S. F., Bonnel, J., Pinna, S., Lane, N. Do soluble phosphates direct the formose reaction towards pentose sugars? *Astrobiology*, 22(3):981-991 (citations: 17)

**2022** Giese, C.C., ten Kate, I.L., van den Ende, M.P.A., Wolthers, M., Aponte, J., **Camprubi, E.**, Dworkin, J., Elsila, J.E., Hangx, S., King, H.E., Mclain, H.L., Plümper, P., Tielens, A.G.G.M. Experimental and theoretical constraints on amino acid formation from PAHs in asteroidal settings. *ACS Earth and Space Chemistry*, 6(3):468-481 (citations: 10)

**2021** Živković, A., Somers, M., **Camprubi, E.**, King, H. E., Wolthers, M., de Leeuw, N. H. Changes in CO<sub>2</sub> adsorption affinity related to Ni doping in FeS surfaces: A DFT-D3 study. *Catalysts*, 11(486) (citations: 13)

**2020** Preiner, M., Asche, S., Becker, S., Betts, H., Boniface, A., **Camprubi, E.**, Chandru, K., Erastova, V., Garg, S., Khawaja, N., Kostyrka, G., Machne, R., Moggioli, G., Muchowska, K. B., Neukirchen, S., Peter, B., Pichlhofer, E., Radványi, A., Ring, C., Rossetto, D., Salditt, A., Schmelling, N. M., Sousa, F., Tria, F., Vörös, D., Xavier, J. C. The future of origin of life research: bridging decades-old divisions. *Life*, 10:3 (citations: 161)

**2020** Taubner, R. S., Olsson-Francis, K., Vance, S., Antunes, A., Barge, L., Bollengier, O., Brown, M. J., **Camprubi, E.**, de Vera, J. P., Goodman, J., Hand, K., Jebbar, M., Journaux, B., Karatekin, Ö., Klenner, F., Noack, L., Postberg, F., Rabbow, E., Ramkinsson, N., Rettberg, P., Rückriemen-Bez, T., Sekine, Y., Shibuya, T., Soderlund, K. Experimental and simulation efforts in the astrobiological exploration of exoceans. *Space Science Reviews*, 216:9 (citations: 41)

**2019 Camprubi, E.**, de Leeuw, J. W., House, C. H., Raulin, F., Russell, M. J., Spang, A., Tirumalai, M. R., Westall, F. The emergence of life. *Space Science Reviews*, 215:56 (also appearing as a chapter in *Ocean Worlds: Habitability in the Outer Solar System and Beyond*, Springer, 2021) (citations: 107)

**2019** Choblet, G., Cadek, O., Freissinet, C., Jones, G., Le Gall, A., MacKenzie, S., Neveu, M., Olsson-Francis, K., Saur, J., Schmidt, J., Sekine, Y., Tobie, G., Vance, S., Barge, L., Behoukova, M., Buch, A., **Camprubi, E.**, Hedman, M., Lainey, V., Lucchetti, A., Mitri, G., Nimmo, F., Panning, M., Postberg, F., Shibuya, T., Sotin, C., Soucek, O., Szopa, C., Tomohiro, U., Van Hoolst, T. Enceladus as a potential oasis for life: Science goals and investigations for future explorations (a white paper submitted in response to ESA's Voyage 2050 call). Published also in *Experimental Astronomy*, <https://doi.org/10.1007/s10686-021-09808-7> (citations: 26)

**2018 Camprubi, E.**, Whicher, A., Pinna, S., Herschy, B., Lane, N. Acetyl phosphate as a primordial energy currency at the origin of life. *Origin of life and evolution of biospheres*, 48(2):159-179 (citations: 91)

**2017 Camprubi, E.**, Jordan, S., Vasiliadou, R., Lane, N. Iron catalysis at the origin of life. *IUBMB Life*, 69(6), 373-381 (citations: 168)

**2016** Sojo, V., Herschy, B., Whicher, A., **Camprubi, E.**, Lane, N. The origin of life in alkaline hydrothermal vents. *Astrobiology*, 16(2), 181-197 (citations: 350)

**2014** Herschy, B., Whicher, A., **Camprubi, E.**, Watson, C., Dartnell, L., Ward, J., Evans, J. R. G., Lane, N. An Origin-of-Life reactor to simulate alkaline hydrothermal vents. *Journal of Molecular Evolution*, 79, 213-227 (citations: 222)

#### **Awards, fellowships and grants**

Total secured external funding since joining UTRGV: **\$1,450,000.**

**2025** NASA-Interdisciplinary Consortia for Astrobiology Research (ICAR). Role: Co-I/Theme Lead. Title: Impact-Generated Hydrothermal Systems: Dynamic Habitability Potential and Biosignature Characterization – **\$6,400,000**. Result: not funded.

**2025** (under review) Texas Space Commission SEARF. Role: Co-I. Title: Microbiome Monitoring in Space and Near-Earth Extraterrestrial Environments (NEEEs): Prediction, Prevention and Clinical Management Strategies of Infectious Diseases – **\$3,400,000**. Result: **under review**.

**2025** NASA/Maine Space Grant Consortium – EPSCoR. Role: Co-I. Title: Maine Core Facilities For Materials and Geochemical Analyses: Enabling Research Ranging from the Origin-of-Life to the Origin of the Peopling of Maine – **\$600,000**. Result: **funded**.

**2025** Human Frontier Science Program Research Grant (Early Career) Letter of Intent. Role: Co-I. Title: Nucleoside synthesis by polynucleotides. Result: not encouraged.

**2025** Chuo University Visiting Scholars Program. Role: Awardee – 200,000 JPY. This award allowed me to spend 3 weeks in Japan (May 2025) to work with my collaborators in Tokyo. Result: **funded**.

**2025** NASA MOSAICS Seed Funding (MSF). Role: PI. Title: GeoRedox – Establishing a cross-mentoring collaborative network between NASA JPL and two under-resourced institutions to carry out astrobiological investigations of aqueous geochemistry – \$500,000. Result: not funded.

**2025** NASA FINESST. Role: PI. Title: Development of a Nanomaterial-Based Sensor for Detecting Lunar Regolith Dust Contamination – **\$149,808**. Result: under review.

**2025** (under review) NASA – MUREP ESSR. Role: Co-I. Title: VITAL - Virtual Institute for Temporal and Additive Learning – **\$1,200,000**. Result: **under review**.

**2025** NSF S-STEM. Role: Co-I. Supporting Training for Achieving RGV Scholars in STEM – \$1,999,582. Result: withdrawn.

**2025** NSF BRC-BIO. Role: PI. Title: Building a Cell - Coupling Amphiphile Prebiotic Chemistry to Protocell Heredity – **\$502,983**. Result: **funded**.

**2025** NSF REU. Role: Collaborator. Title: REU Site - Summer Undergraduate Research Program in Biochemistry – **\$145,000**. Result: not funded.

**2024** Welch Foundation Departmental Chemistry Grant. Role: senior personnel. Result: **funded**.

**2024** Maine Space Grant Consortium (MSGC) - EPSCoR RID. Role: Co-I. Title: Geochemical analyses into the origins of life and the peopling of Maine; inclusive pathways to NASA-related research lead primarily by a team of displaced chemists – **\$50,000**. Result: **funded**.

**2024** USDA NIFA. Role: Project Director (PI). Title: Catalytic isomerization of galactose from acid whey into low-calorie tagatose – **\$299,672**. Result: **funded**.

**2024** NASA Research Initiation Awards (RIA). Role: PI. Title: Understanding Europa's surficial chemistry - A window to its ocean – **\$299,246**. Result: **funded**.

**2024** NASA Research Opportunities in Space and Earth Sciences 2023 (ROSES-2023) Exobiology. Role: Co-I. Title: Tracing Biosignature Diagenesis in Icy Worlds – \$1,871,000. Result: not funded.

**2024** NSF S-STEM. Role: Co-I. Supporting Training for Achieving RGV Scholars in STEM – \$1,999,997. Result: not funded.

**2024** NASA MIRO. Role: Co-I. Title: The South Texas Space Science Institute - Partnering with NASA to advance research and education in the space sciences – \$4,842,046. Result: withdrawn.

**2024** Welch Foundation Research Grant. Role: PI. Building a Membrane: From the Prebiotic Chemistry of Amphiphiles to Protocell Biophysics – \$300,000. Result: not funded.

**2024** Faculty Travel Support Program (UTRGV) – **\$800**. Result: **funded**.

**2023** Heising-Simons Foundation, Texas Area Planetary Science travel grant – **\$600**. Result: **funded**.

**2023** NSF MRI. Role: Senior personnel. Title: Acquisition of a Single-Crystal Xray Diffractometer – \$375,133. Result: not funded.

**2023** Human Frontier Science Program (HFSP) Early-Career Research Grant. Role: PI. Title: Beyond the central dogma: Evolution before genetic coding in protocell populations – \$1,050,000. Result: not funded.

**2023** Faculty Travel Support Program (UTRGV) – **\$800**. Result: **funded**.

**2023** NSF MRI. Role: Senior personnel. Title: Acquisition of a TCI CryoProbe Prodigy for a 600 MHz NMR Spectrometer for Research & Education at Rio Grande Valley – \$350,064. Result: not funded.

**2022** John Templeton Foundation General Call. Role: co-PI. Title: Beyond the central dogma: Evolution in vesicle systems without genetic coding – \$1,489,617. Result: not funded.

**2022** Maine Space Grant Consortium (MSGC)/ EPSCoR RID. Role: Senior personnel. Title: Elucidating mechanisms for a potential origin of life on water/rocky planets – \$50,000. Result: not funded.

**2022** The University of Texas System. Role: PI. Rising STARS award – **\$300,000**. Result: **funded**.

**2022** Selected as one of 30 fully-funded international ECRs to attend the Templeton Foundation's IdeasLab "Bringing Chemistry, Physics and Computing to Life", an interdisciplinary grant-writing workshop which took place June 19-24 2022 in Prague (CZ) aimed at obtaining extramural funding for Origins and Artificial Life research – **€2,000**. Result: **funded**.

**2021** Awarded a Human Frontier Science Program (HFSP) 3-year Cross-Disciplinary Fellowship to join the Earth-Life Science Institute (Tokyo Tech, Japan) – **€160,000**. Result: **funded**.

**2019** 'Sandpit' grant to foster networking and interdisciplinary grant write-up. Awarded by the Physics of life network 2 (PoLNet2), EPSRC Research Council (UK) – **£5,000**. Result: **funded**.

**2018** Funding for the organisation of a 1-day international Origins Symposium at Utrecht University awarded by the Dutch Origins Center (NWO) – **€10,000**. Result: **funded**.

**2017** Awarded an Origins Center (NWO) 3-year Fellowship for its 1<sup>st</sup> gamechanger: 'Origin and co-evolution of Earth-like planets and life' to construct a high-pressure origins simulator. I chose Dr Inge Loes ten Kate's Astrobiology group (Utrecht University) as my host lab – **€140,000** (excluding salary). Result: **funded**.

**2017** SLMS PhD student travel grant for international conferences (to ELSI, Japan) awarded by UCL – **£1,500**. Result: **funded**.

**2016** EANA travel grant for postgraduate students (EANA, Greece) – **€400**. Result: **funded**.

**2015** AbGradE + EANA travel grant for postgraduate students (EANA, Netherlands) – **€500**. Result: **funded**.

**2014** Fellowship for PhD study for highly impactful PhD projects awarded by UCL Impact Awards (2 years of PhD funding; UK) – **£70,000**. Result: **funded**.

**2014** Fellowship for overseas postgraduate study awarded by 'la Caixa' Foundation (2 years of PhD funding; Spain). This fellowship is handed in person by the King of Spain – **€85,000**. Result: **funded**.

**2012** Extraordinary prize for the highest grades during the Biochemistry degree amongst the 2012 cohort awarded by the Autonomous University of Barcelona.

### **Career development training**

**2025** 12-week UTRGV-sponsored external program offered by NCFDD Faculty Success Program (NCFDD-FSP)

**2024** Juntos al Éxito! – Path to R1 (UTRGV)

**2024** Juntos al Éxito! – Fomentando la Excelencia Bilingüe: Meet the Office for Bilingual Integration Team (UTRGV)

**2025** Juntos al Éxito! – Research Growth Update: Reaching 100\$M on our 10th Anniversary (UTRGV)

**2024** 'Documenting Teaching Effectiveness: Showcasing Your Teaching Values & Beliefs in Your Dossier', Center for Teaching Excellence, Division of Student Success (UTRGV)

**2023** 'Juntos al Éxito! – Empowering Our Pedagogical Skills' (UTRGV)

**2023** 'Juntos al Éxito! – COLTT Services and Support' (UTRGV)

**2023** 'Professional development in teaching' workshop (by Dr. Justin Shaffer) as part of one of the new course design Ad Hoc committees, SIBCS (UTRGV)

**2023** Writing-Mentoring Program, Mentor: Prof. Mario Diaz (Department of Physics and Astronomy), College of Sciences (UTRGV) (testimonial video: <https://www.utrgv.edu/cos/faculty-success/writing-mentoring-program/index.htm>)

**2023** 'Eliciting Meaningful Student Feedback on Course Evaluations through Guided Open-Ended Questions', Center for Teaching Excellence, Division of Student Success (UTRGV)

**2023** 'How to make the most of your mentor relationship', workshop organized by the Office of Faculty Success & Diversity (UTRGV)

**2023** 'Traditional Lecture vs. Active Learning: Exploring the Impact of Hands-On Engagement for Student Success Across Academic Disciplines', Center for Teaching Excellence, Division of Student Success (UTRGV)

**2023** 'Cheating in the 21st Century: How to turn a menace into an innovative educational tool?', Juntos al Éxito, College of Sciences (UTRGV)

**2023** 'Curating Your Teaching Narrative for Tenure and Promotion', Center for Teaching Excellence, Division of Student Success (UTRGV)

**2022 – 2023** 'Keys to Research' workshop series, Faculty Research & Professional Development Program, Division of Research (UTRGV)

**2022** 'Say Goodbye to Reading the Syllabus: Explore memorable and interactive learning' workshop, Center for Teaching Excellence, Division of Student Success (UTRGV)

**2022** 'Not Just Another Reading Assignment: Active reading strategies to engage your students' workshop, Center for Teaching Excellence, Division of Student Success (UTRGV)

**2022** 'Incorporating Critical Reflection to Help Students Articulate Their Learning' workshop, Center for Teaching Excellence, Division of Student Success (UTRGV)

### **Service**

**02/2025** Invited speaker at the Division of Research event COMPASS: From Silos to Synergy

**2024 – 2025** Member of the tenure-track faculty search committee for the Computational Biochemistry position, SIBCS (UTRGV) – Chair: Megan Keniry

**2024** Member of the search committee for the new SIBCS Director, SIBCS (UTRGV) – Chair: Rob Gilkerson

**08/2024** Manned SIBCS stand to welcome and provide information to new students

**04/2024** Hosted an in-person external speaker (Dr. Rebecca Rapf, Trinity University) at the SIBCS Seminar Series

**01/2024** Manned SIBCS stand to welcome and provide information to new students

**12/01/2023 - present day:** Professional Outreach Lead, South Texas Space Science Institute, University of Texas Rio Grande Valley (Texas, United States) (<https://www.utrgv.edu/stssi/>)

**09/2023** Interview in Vaquero Radio together with Dean Incera and Director Dearth to promote and explain the interdisciplinary nature of the new School of Integrative Biological and Chemical Sciences (<https://utrgvradio.com/index.php/2023/09/18/utrgv-new-school-of-integrative-biological-and-chemical-sciences/>)

**08/2023** Manned SIBCS stand to welcome and provide information to new students

**08/2023 – 05/2024** Member of the new course development (Cell & Molecular Biology course) Ad Hoc Committee, SIBCS (UTRGV)

**04/2023** Judge at UTRGV's COS Annual Research Conference (Brownsville, TX) for the Departments of Biology and Chemistry

**02/2023 - 08/2023** Member of the Instrumentation Committee for the Department of Chemistry

**01/2023 - present day** Member of UTRGV's Biochemistry & Molecular Biology MS organizing committee

**01/2023** Manned Biology Department stand to welcome and provide information to new students

**09/2022 - 09/2024** Member of the Marketing and Community Engagement Committee, Department of Biology/SIBCS

**11/2022** Co-organization of the Department of Chemistry's Open House events (both Brownsville and Edinburg). Collaborated with a divulgatory demonstration stand of the research conducted in the Astrobiochemistry Lab.

### **Conference contributions**

I have attended numerous national and international conferences, workshops, and institutional seminars. Most (16/19) of my conference contributions since September 2022 were invited by the organizers. Please find the full list of my oral and poster contributions at the end of this document.

### **Teaching activities**

#### Formal teaching:

**Fall 2024** Taught 'Astrobiology' as a standalone undergraduate course (BIOL 4340); student evaluation of 100% agree or strongly agree. Enrollment of 20.

**Spring 2024** Taught 'Topics in Biol I: Astrobiology as a graduate course (BIOL 6398, 02I); student evaluation of 70% agree or strongly agree. Enrollment of 8.

**Fall 2023** Taught 'Special Topics I: Astrobiology' as an undergraduate course (BIOL 4398-02); student evaluation of 95% agree or strongly agree. Enrollment of 17.

**Spring 2023** Designed new undergraduate course on 'Special Topics in Biochemistry: Astrobiology' (CHEM 4306); student evaluation of 95% agree or strongly agree. Enrollment of 18.

**Spring 2023** Guest Lecture on the 'Origin of Life' in Dr. Kathryn Perez's 'Evolution' course (BIOL 331).

**Spring 2020** and **Spring 2019** Lectured on the course 'Planetology, an introduction' (Utrecht University, Netherlands) to 3<sup>rd</sup> year Geosciences students.

**Spring 2017** and **Spring 2016** Lectured on the course 'Energy and evolution' (UCL, UK) to 2<sup>nd</sup> year Biological Sciences students.

#### Research student and staff supervision:

Postdoctoral researchers:

**Dr. Deepali Singh** (January 2025 – present day), UTRGV

PhD students (as primary supervisor):

**Myrine Barreiro-Arevalo** (September 2023 – present), Mathematics and Statistics with Interdisciplinary Applications, UTRGV

**Mauricio Berazaluze** (September 2024 – present), Materials Science and Engineering, UTRGV

PhD students (not as primary supervisor):

**Antonio Lopez Garcia** (2025 – present day), INTA-Centro de Astrobiologia, Madrid, Spain (dissertation committee)

**Richard Camuccio** (2024 – present day), Physics and Astronomy, UTRGV (dissertation committee)

**Nina Kopacz** (May 2019 – September 2021), Planetary Sciences, Utrecht University

**Claudia Giese** (November 2018 – March 2021), Planetary Sciences, Utrecht University

**Jingbo Nan** (September 2018 – January 2021), Planetary Sciences, Utrecht University

MS students:

**Gabriella Garza** (September 2023 – present), Biology, UTRGV

**Ilankuzhali Elavarasan** (January 2024 – present), Chemistry, UTRGV

**Andrea Aldaba** (September 2024 – present), Biochemistry and Molecular Biology, UTRGV

**Kaelyn Calma** (January 2025 – present), Biochemistry and Molecular Biology, UTRGV

**Kiara Garduno** (September 2025 – present), Biochemistry and Molecular Biology, UTRGV

**Sophie Luijendijk** (September 2020 – September 2021), Environmental Sciences, Utrecht University

**Michiel Somers** (March 2020 – August 2020), Geochemistry, Utrecht University

**Frances Versluis** (September 2019 – May 2020), Earth Sciences, Utrecht University

**Silvana Pinna** (October 2016 – September 2017), Biochemistry, University College London

**Jeroen Carmiggelt** (April 2019 – August 2019), Earth Sciences, Utrecht University

**Stan Bakker** (November 2018 – April 2019), Earth Sciences, Utrecht University

**Iro Pierides** (October 2016 – April 2017), Biochemistry, University College London

**Sylvia Lim** (October 2015 – April 2016), Biochemistry, University College London

BS students:

**Shelby Lopez** (May 2025 – present), Biology, UTRGV

**Nolan Salinas** (January 2025 – present), Biology & Chemistry, UTRGV

**Louie Tapia** (May 2025 – August 2025), Chemistry, UTRGV

**Baz Vitek** (May 2025 – August 2025), Astronomy, Mount Holyoke College

**Dulce Castillo** (September 2023 – present), Chemistry, UTRGV

**Kiara Garduno** (September 2023 – August 2028), Biology, UTRGV

**Kimberly Moran** (January 2024 – May 2024), Biology, UTRGV

**Sarah Walzer** (September 2023 – May 2024), Biology, UTRGV

**David Hernandez** (September 2023 – May 2024), Chemistry (Chem Problems, CHEM 4201), UTRGV

**Mauricio Berazaluze** (September 2023 – May 2024), Chemistry (Chem Problems, CHEM 4201), UTRGV

**Abraham Torres** (October 2023 – December 2023), Biology, UTRGV

**Carlos Gonzalez** (September 2023 – December 2023), Biology, UTRGV

**Fernando Garcia** (September 2023 – December 2023), Biology, UTRGV

**Hebe Wildi** (January 2016 – April 2016), Natural Sciences, University College London

**Naho Genko** (October 2014 – April 2015), Biochemistry, University College London

Post-bacc students:

**David Segovia** (August 2024 – April 2025), UTRGV

**Andrea Aldaba** (June 2024 – August 2024), UTRGV

**Sarah Walzer** (June 2024 – July 2024), UTRGV

**Gabriella Garza** (January 2023 – September 2023), UTRGV

Summer interns and exchange students:

**Ruvan de Graaf** (July 2024 – August 2024), UTRGV (exchange student from CoA, Maine)

**Jeanne Bonnel** (June 2016 – August 2016), University College London

Achievements of mentored students:

**Myrine Barreiro-Arevalo** – JSPS (Japanese Education Ministry) Postdoctoral Research Fellowship (Short-Term) for continuing her PhD research at the lab of Dr. Tomoaki Matsuura (Institute of Science Tokyo) for 6 months starting in October 2025

**Myrine Barreiro-Arevalo** – Received the COS STEM Research Conference award to the best doctoral oral presentation within the SMSS PhD Program

**Myrine Barreiro-Arevalo** – JSPS (Japanese Education Ministry) Summer Research Fellowship for performing PhD research at the lab of Dr. Tomoaki Matsuura (Toyko Institute of Technology) for 3 months during summer 2024

**Myrine Barreiro-Arevalo** – Outstanding Graduate Research Award from UTRGV's SMSS PhD Program

**Andrea Aldaba** – Received the COS STEM Research Conference award to the best oral presentation within the BCMB Program

**Mauricio Berazaluze** – Travel grant by Arizona State University to attend their 'MateriAlZ (materials science applied to space sciences) Winter School' (Tucson, Arizona) (2024)

**Mauricio Berazaluze** – Travel and research grant by Maine Space Grant Consortium/EPSCoR RID to work for the month of July at the lab of my collaborator Dr. Reuben Hudson (College of the Atlantic, Maine) (2024)

**Dulce Castillo** – Dean Excellence Fellowship (2023)

**Dulce Castillo** – SIBCS Student Success Awards (2025) in the Chemistry – Undergraduate Research Achievement category

**Dulce Castillo** – SIBCS Summer Undergraduate Research Scholar (2024)

**Ilankuzhali Elavarasan** – Attended the workshop: Culturally Inclusive Planetary Engagement workshop in Tucson, AZ. She got a \$2,175 travel grant to attend from the external organizers (Planetary ReaCH team)

**Ilankuzhali Elavarasan** – Selected to attend AbGradCon (Astrobiology Graduate Conference) with a fully paid travel grant from the organization

**Ilankuzhali Elavarasan** – Awarded a NASA Astrobiology Early Career Collaboration project to spend a month at NASA Jet Propulsion Lab during summer 2025. Ilan advanced her Chemistry MS project by learning advanced cryogenic techniques

**Ilankuzhali Elavarasan** – Travel grant by the Lunar and Planetary Institute (LPI) to attend their hands-on workshop on 'Modern SEM Techniques for Planetary Materials' (2024)

**Kiara Garduño** – Awarded a NASA RAISE summer internship to spend 3 months at NASA JPL during summer 2025. Her project with ancient Martian hydrogeology

**Kiara Garduño** – Acceptance into REU Program in Physics & Astronomy (2024)

**Gabriella Garza** – UTRGV Presidential Fellowship for Biology MS studies (2023)

**Gabriella Garza** – LSAMP-PRELS Fellowship (2023)

Since September 2022, a total of 5 student travel grants have been awarded by conference organizers to my research students for their conference attendance:

Texas Area Planetary Science 2024 (San Antonio) – Mauricio, Ilankuzhali, Andrea

SACNAS conference 2023 (Portland) – Myrine

LSAMP conference 2023 (El Paso) – Gabriella

I often write recommendation letters (5/semester in average) for awards and higher-level studies for both taught and research students who exceeded my expectations as a mentor.

### **Conference and workshop organization and chairing**

**2025** Moderator at LPSC session 'Solar System Atmospheres', Houston (US)

**2023 - 2024** Primary convener for session titled 'Prebiotic chemistry or biosignature? Navigating the maze of abiogenesis for space exploration'. We received more than 20 abstracts, which were distributed into 3 sessions (2 oral, 1 poster). Astrobiology Science Conference (AbSciCon), Providence, (US)



**2023** Chaired invited speakers' session #3 at the first Texas Area Planetary Science meeting, San Antonio, (US)

**2023** Member of the scientific organizing committee for the first Texas Area Planetary Science meeting, San Antonio, (US)

**2021** Steering group for the organization of the workshop 'Out-of-Equilibrium Systems, Emergence and Life' (Lorentz Center-Online, Netherlands)

**2018** Organized an international 1-day symposium at Utrecht University (Netherlands) titled 'Origins Symposium – Tracing life's emergence and preservation'.

**2018** Chaired session 'Prebiotic chemistry' at the 1<sup>st</sup> Interdisciplinary Origin of Life (IOoL) meeting, Düsseldorf (Germany).

**2018** Chaired session 'The building blocks of life' at the European Astrobiology Network Association (EANA) conference, Berlin (Germany).

**2015** Organising committee for the Astrobiology Society of Britain (ASB06) conference at UCL-Birkbeck (UK).

**2014** Organising committee for UCL's Origin of life open symposium (UK).

### **Industrial innovation**

**2018 - 2020** Together with Micronit Microtechnologies (Enschede, NL) we developed three types of pressure-resistant (up to 75 bar) relaxed glass microfluidics chips. Since then, Micronit offers high-pressure solutions for a variety of laboratory applications.

**2018 - 2020** Developed a high-pressure H<sub>2</sub> solubilization unit in collaboration with Da Vinci Laboratory Solutions (Rotterdam, NL) capable of maintaining the pressurization level when the unit's contents are being suctioned by a high-pressure syringe pump (<https://digitaalmagazine.labvision.nl/labvision-uitgave-1/labvision-1-artikel-da-vinci>).

### **Research expeditions**

**07/2018** Participated in a research expedition with Dr Helen King (Utrecht University) to Rio Tinto (Huelva, Spain) to study phosphate O-isotopes as a tracer for life in extreme environments (funding by EuroPlanet 2017). This project led to our co-supervision of masters student Stan Bakker.

### **Science dissemination activities**

**05/2025** Designed and manned an interactive Space Science stand (as part of the South Texas Space Science Institute) at Space Fest Brownsville

**12/2024** Invited speaker at the kick-off event of the UTRGV Father-Son program

**09/2024** College of Science representative at outreach event 'The Shooting Star of Starr County: An Out of this World Discovery' – A meteorite exhibit opening night at the Museum of South Texas History

**08/2024** Interview for the wider audience with Thomas Spencer (UTRGV – Division of Research) on my recently awarded NASA RIA project impacting the data analyses from NASA's current mission to Saturn 'Europa Clipper' (<https://www.utrgv.edu/research/news/archive/astrobiology-and-icy-worlds/index.htm>).

**05/2024** Designed and manned (together with 4 of my research students) an interactive Space Science stand (as part of the South Texas Space Science Institute) at Space Fest Brownsville.

**03/2024** Designed and manned (together with 3 of my research students) an interactive stand with UTRGV's Mineral and Fossil collection for the 6th Annual Science Discovery Day IDEA College Prep Elsa.

**08/2023** Divulgarion article 'On organic molecules in space and what they tell us' for South Texas Astronomical Society's FarFarOut! Magazine; Volume 2, Issue 2, pages 10-13 (<https://starsocietytrgv.org/wp-content/uploads/2023/08/FFO-6-Master.pdf>).

**05/2023** Video interview by PhD Insiders on my research at and mentoring philosophy (English: <https://www.phdinsiders.com/labs/camprubi-casas-lab> & Spanish: <https://www.youtube.com/watch?v=dxLprym85hY>).

**03/2023** Divulcation talk 'From the stars to your backyard – Meteorites impacting the Rio Grande Valley'; in collaboration with Prof. Juan Gonzalez and organized by UTRGV's College of Sciences. Also appeared on a television interview (Telemundo 40) covering this event (<https://www.telemundo40.com/noticias/local/en-texas-han-caido-al-menos-300-meteoritos-y-crece-el-interes-por-estas-rocas/2272716/>).

**02/2023** Television interview (Channel 5-KRGV) covering the meteorite impact which fell in Starr county in February 2023 (<https://www.krgv.com/news/meteorite-fragment-sparks-interest-among-local-researchers>).

**01/2023** Designed and manned an interactive stand with UTRGV's Mineral and Fossil collection for the 5th Annual Science Discovery Day IDEA College Prep Elsa.

**02/2021** Collaboration with Esther Thole on two NEMO Kennislink articles: 'De oeroceaan op zakformaat' (English: A pocket-sized primeval ocean) (<https://www.nemokennislink.nl/publicaties/de-oeroceaan-op-zakformaat/>) and 'De jonge aarde was een gigantische batterij' (English: The young Earth was a giant battery) (<https://www.nemokennislink.nl/publicaties/de-jonge-aarde-was-een-gigantische-batterij/>).

**05/2020** Collaboration with Melanie Metz on a Quest physical magazine article about the origins of life and my research 'Hoe is ooit het leven ter wereld gekomen?' (English: How did life emerge?).

**02/2020** Collaboration with Utrecht Young Academy and JINC with disfavored students from vocational schools (VMBO) on designing a vlog about space exploration 'Waar in het heelal kunnen we leven vinden?' (English: Where in the Universe can we find life?).

**12/2019** YouTube video 'How did life get Started?' on my research as part of the Origins Center produced by Sander van Iersel: [https://www.youtube.com/watch?v=ssy\\_IF120Pw&t=3s](https://www.youtube.com/watch?v=ssy_IF120Pw&t=3s).

**03/2016** Two talks on space exploration at Long Sutton CofE Primary School (UK) to KS2 students as part of the Astrobiology Society of Britain 'STARS' space sciences talks.

**01/2016** Talk on the choices for a career in astrobiology at IES Gurb (Spain) to 4<sup>th</sup> year high school students.

**05/2015** Co-organized and manned a one-week scientific divulgation stand for the Royal Society Summer Exhibition 'UCL Origins and Life'.

I often collaborate with science divulgation magazines and blogs covering new advances in the astrobiology and origins fields (e.g., <https://www.the-scientist.com/news-opinion/hydrogen-fueled-life-s-origins-study-69528>, <https://www.livescience.com/what-energy-source-sparked-the-evolution-of-life>).

### **Memberships, synergistic activities, and peer reviewing**

**01/2025 - present day** Elected member of the Board of Directors at NASA's Texas Space Grant Consortium (Texas, United States).

**12/2024 - present day** Member of an expert working group for the European Space Agency on updating the planetary protection regulations for the exploration of Icy Worlds (ESA).

**08/2024 - present day** Member of the Steering Committee of NASA's Network for Ocean Worlds (NOW).

**11/2023 - present day** Founding membership of the Scientific Society for Astrobiology (SSA).

**07/2023 - present day** Member of the American Geophysical Union (AGU).

**03/2023 - present day** Member of the Texas Area Planetary Science (TAPS) network as the UTRGV representative (<https://sites.google.com/view/tapsmeeting/participating-institutions>).

**11/2022 - present day** Member of the International Society for the Study of the Origin of Life – The International Astrobiology Society (ISSOL).

**02/2022 – 05/2023** Special Issue Editor “The Origin and Early Evolution of Life: Prebiotic Chemistry Perspective” (*Life*; 2075-1729, MDPI).

**10/2021 - present day** Member of the Working Group on abiogenesis, European Astrobiology Institute (EAI).

**09/2021 - present day** Member of the Network of Researchers on the Chemical Evolution of Life (NoRCEL).

**06/2021 - present day** Member of SAGANet.

**04/2021 - 12/2023** Topic Editor at the Editorial Board of *Symmetry* (2073-8994, MDPI).

**08/2020** Member of the selection panel for a PEPSci-2 consortium PhD position on ‘Prebiotic polymerization routes on rocky exoplanets’ (University of Amsterdam).

**05/2020 - present day** Member of the international Origin of Life Early-career Network (OoLEN).

**08/2018 – 07/2022** Member of the management committee for the COST action ‘Chemobionics’ as the formal Netherlands representative.

**05/2018 - present day** Member of the Dutch Origins Center.

**02/2017 - present day** Member of the European Astrobiology Network Association (EANA).

I am an active reviewer for many scientific journals including **Nature**, Nature Communications, ACS Accounts of Chemical Research, Earth and Planetary Science Letters, Communications Earth & Environment, Frontiers in Microbiology, PNAS, BioEssays, Chemistry - A European Journal, Life, Minerals, Symmetry, DNA and Cell Biology, and Evolution.

I often peer-review national and international grant proposals within the wide field of astrobiology, covering foundational biological & chemical research to geochemistry & planetary science topics. Examples include ACS Petroleum Research Fund DNI and NASA Exobiology programs.

#### **Conference contributions, in chronological order**

Oral (IT = invited talk; IW = invited workshop):

**2025** IT: Self-Oxidation of the Atmospheres of Rocky Planets with Implications for the Origin of Life; NASA LIFE Research Coordination Network (RCN) seminar series, Online

**2025** IT: On wet rocky worlds – How does origin of life research impact space exploration efforts at ocean worlds?; *Institut de Sciences et d'Ingénierie Supramoléculaires (ISIS)* seminar series (Strasbourg University), Strasbourg, France

**2025** IT: What are biosignatures? Searching for E.T. in our cosmic backyard; Chuo University seminar, Chuo University, Tokyo (Japan)

**2025** IT: On wet rocky worlds – How does origin of life research impact space exploration efforts at ocean worlds?; ELSI Seminar Series, Earth-Life Science Institute – Institute Science Tokyo, Tokyo (Japan)

**2025** IT: On wet rocky worlds – How does origin of life research impact space exploration efforts at ocean worlds?; ICE-CSIC Seminar Series, Space Science Institute – Universitat Autònoma de Barcelona, Bellaterra (Spain)

**2024** IT: Understanding Europa’s surficial chemistry – A window to its ocean; RAISE seminar series (UTRGV), Online

**2024** IT: On wet rocky worlds – How does origin of life research impact space exploration efforts at ocean worlds?; UTIG Seminar Series, University of Texas Austin, Austin (US)

**2024** IT (**PhD summer school**): Understanding life’s emergence and distribution; Dust2DNA PhD summer school; Globe – University of Copenhagen, Copenhagen (Denmark)

**2024 IT (Keynote talk):** What are biosignatures? Searching for E.T. in our cosmic backyard; College of Science Annual Research Conference, UTRGV, Edinburg (US)

**2024** Spaceflight Human Optimization and Performance Summit (SHOP-24) (networking opportunity, no presentation), University of Houston-Clear Lake, Houston (US)

**2024 IT:** On wet space rocks – The dance between geochemistry and biochemistry; Center for Advanced Measurements in Extreme Environments (CAMEE), University of Texas San Antonio, San Antonio (US)

**2023 IT:** How to make a planet – A beginner's guide; UTRGV's SIBCS Research Seminar

**2023 IT:** Becoming a Professor; Origin of Life Early career Network (OoLEN) seminar series, (International Audience), Online

**2023 IT:** Life's emergence as a planetary phenomenon – Hints for life beyond Earth; Texas Area Planetary Science (TAPS) meeting, San Antonio (US)

**2023 IW:** Panel discussion on 'Challenges to becoming a professor in Astrobiology'; AbGradEPEC Symposium; Astrobiology Graduates in Europe (AbGradE)- Europlanet Early Careers (EPEC), La Palma (Spain)

**2023 IT:** The transition between Hadean geochemistry and ancient biochemistry – What are we missing?; Globe Institute seminar series, Copenhagen (Denmark)

**2023 IT:** The transition between Hadean geochemistry and ancient biochemistry – What are we missing?; Astrobiology Hour at Pennsylvania State University (US), Online

**2022 IT:** Living Energy – How hydrothermal systems bridge the gap between Earth's geochemistry and earliest biochemistry, and beyond; UTRGV's Biology Research Seminar

**2022 IT:** The role of vectorial chemistry at life's emergence; MPIA 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; 2<sup>nd</sup> Origins Center (Netherlands) conference, Online

**2020 IT:** An experimental high-pressure Origins Simulator to study the emergence of life on Earth; 2<sup>nd</sup> Interdisciplinary 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** Contributed talk: 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 80<sup>th</sup> 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** Contributed talk: An origins simulator – Could natural pH gradients have powered the origin of life?; European Astrobiology Network Association (EANA) conference, Berlin (Germany)

**2017** Contributed talk: 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** Contributed talk: Alkaline hydrothermal vents as electrochemical reactors driving an autotrophic origin of life; European Astrobiology Network Association (EANA) conference, Athens (Greece)

Poster (SP = poster by my student, ST = talk by my student):

**2025** Self-oxidation of the atmospheres of rocky planets – implications for the origin of life, Lunar and Planetary Science Conference (LPSC), Houston (TX), US

**2025** Understanding Icy World Surface Chemistry as a Tool to Peer Through its Crust, NASA workshop: Exploring the Abiotic Background for Life Detection, Washington DC, US

**2025** SP (Deepali Singh) Quantifying Variables in Search for Habitable Environments on Mars and Beyond, Lunar and Planetary Science Conference (LPSC), Houston (TX), US

**2025** SP (Deepali Singh) Quantifying Variables in Search for Habitable Environments on Mars and Beyond, COS STEM Research Conference, Edinburg (TX), US

**2025** ST (Deepali Singh) Brine and Beyond: Environmental Influences on Microbial Life in Saline Environments, SIBCS seminar series, Edinburg (TX), US

**2025** ST (Myrine Barreiro-Arevalo) Evolution Before Genes: Modelling Heredity in Vesicle Systems, NASA LIFE Research Coordination Network (RCN) seminar series, Online

**2025** SP (Ilankuzhali Elavarasan) Ice-Organic-Salt Interactions on Europa: Irradiation & Ice Simulation, AbGradCon 2025, Boulder (CO), US

**2025** ST (Myrine Barreiro-Arevalo) A Mathematical Model to Study Heredity of Vesicle Systems, SIAM Annual Meeting (AN25), Montreal, Canada

**2025** ST (Myrine Barreiro-Arevalo) A Mathematical Model to Study Heredity of Vesicle Systems, COS STEM Research Conference, Edinburg (TX), US

**2025** ST (Myrine Barreiro-Arevalo) A Mathematical Model to Study Heredity of Vesicle Systems, The 9<sup>th</sup> Coastal Bend Mathematics and Statistics Conference, San Antonio (TX), US

**2025** SP (Mauricio Berazaluce) Development of a Nanomaterial-Based Sensor for Detecting Lunar Regolith Dust Contamination, COS STEM Research Conference, Edinburg (TX), US

**2025** SP (Kaelyn Calma), Synthesis and Polymerization of Thioesters Under Alkaline Hydrothermal Vent Conditions, COS STEM Research Conference, Edinburg (TX), US

**2025** SP (Kiara Garduno Perez), Cracking Europa's Shell: Understanding Biosignature Diagenesis with Assembly Theory, COS STEM Research Conference, Edinburg (TX), US

**2025** SP (Nolan Salinas) Identification of Phenolic Acids & Flavonoids from Honey via Liquid Chromatography-Mass Spectrometry (LCMS), COS STEM Research Conference, Edinburg (TX), US

**2025** ST (Kiara Garduno Perez), Beneath the Red Surface: Functional Architecture of Gale Crater's Subsurface System – A Stratified Framework for Simulating Salt-Brine Transport, Redox Chemistry, and Organic Preservation on Ancient Mars, OSTEM Intern Conference, NASA-Jet Propulsion Laboratory, Pasadena (CA), US

**2025** SP (Andrea Aldaba), Simulating the Surface Maturation of Exogenous Organics on Europa, COS STEM Research Conference, Edinburg (TX), US

**2024** SP (Dulce Castillo) Investigating ATP Sequestering on Iron Sulfides, SBICS Undergraduate Research Symposium, Edinburg (TX), US

**2024** SP (Kaelyn Calma) Mapping Europa's Surface Chemistry: Raman Spectroscopy and MS in Cryogenic Simulations, SBICS Undergraduate Research Symposium, Edinburg (TX), US

**2024** SP (Nolan Salinas) Identification of Phenolic Acids & Flavonoids from Honey via Liquid Chromatography-Mass Spectrometry (LCMS), SBICS Undergraduate Research Symposium, Edinburg (TX), US

**2024** SP (Leah Adame), SBICS Undergraduate Research Symposium, Edinburg (TX), US

**2024** ST (Myrine Barreiro-Arevalo) Synthesis and Characterization of Vesicle Compartments to Study the Origins of Heredity, US and Canada JSPS Alumni Association gulf State Chapter regional meeting, San Antonio (TX), US

**2024** SP (Nolan Salinas) Identification of Phenolic Acids & Flavonoids from Honey via Liquid Chromatography-Mass Spectrometry (LCMS), SBICS Undergraduate Research Symposium, Edinburg (TX), US

**2024** ST (Ilankuzhali Elavarasan) Probing Surface Chemistry of Ocean Worlds using BOREAS – A Planetary Simulator, SIBCS seminar series, Edinburg (TX), US

**2024** SP (Ilankuzhali Elavarasan) BOREAS – Probing Europa's Subsurface Ocean by Simulating Icy Surficial Conditions, NASA Planetary Science Technology Symposium by PESTO, Glenn Research Centre, Cleveland (OH), US

**2024** SP (Kiara Garduño) Probing vesicle formation across the pH scale – Investigating primordial heredity mechanisms, SIBCS Undergraduate Symposium, Edinburg (TX), US

**2024** SP (Mauricio Berazaluce) Synthesis of Catalytic Materials for Origin of Life studies, SIBCS Undergraduate Symposium, Edinburg (TX), US

**2024** SP (David Hernandez) Developing Methods for Solid-Phase Extraction Purification and Liquid Chromatography - Mass Spectrometry Quantification of Aqueous Nucleotide Samples, SIBCS Undergraduate Symposium, Edinburg (TX), US

**2024** SP (Sarah Walzer) Identifying Algal Lipids via LC-MS: Applications to Biofuel Production, SIBCS Undergraduate Symposium, Edinburg (TX), US

**2024** SP (Ilankuzhali Elavarasan, Andrea Aldaba) BOREAS - Probing Europa's Subsurface Ocean by Simulating Icy Surficial Conditions, TAPS Meeting, San Antonio (TX), US

**2024** SP (Mauricio Berazaluce) Probing Prebiotic Polymerization on Mineral Surfaces using Microfluidics, TAPS Meeting, San Antonio (TX), US

**2024** SP (Ilankuzhali Elavarasan), BOREAS - Probing Europa's Subsurface Ocean by Simulating Icy Surficial Conditions, COS Annual Research Conference, Edinburg (TX), US

**2024** SP (Myrine Barreiro-Arevalo) Synthesis and Characterization of Vesicle Compartments to Study the Origins of Heredity, COS Annual Research Conference, Edinburg (TX), US

**2024** SP (Gabriella Garza) Prebiotic RNA oligonucleotide polymerization on mineral surfaces using microfluidics, COS Annual Research Conference, Edinburg (TX), US

**2024** Self-oxidation of the atmospheres of rocky planets – implications for the origin of life, Astrobiology Science Conference (AbSciCon), Providence (RI), US

**2023** Self-oxidation of the atmospheres of rocky planets – implications for the origin of life, American Geophysical Union (AGU), San Francisco (CA), US

**2023** SP (Gabriella Garza) Prebiotic RNA oligonucleotide polymerization on mineral surfaces using microfluidics, UT System LSAMP Conference, El Paso (TX), US

**2023** Do soluble phosphates direct the formose reaction towards pentose sugars?; Biennial European Astrobiology Conference (BEACON) 2023, European Astrobiology Institute (EAI), La Palma (Spain)

**2023** SP (Gabriella Garza) Prebiotic RNA oligonucleotide polymerization on mineral surfaces using microfluidics, COS Annual Research Conference, Brownsville (TX), US

**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) 6<sup>th</sup> 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; Astrobiology Society of Britain 7 (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; Astrobiology Society of Britain 6 (ASB06) meeting, London (United Kingdom)

**2015** Proto-metabolic flux leading to polymerisation at life's origin; European Astrobiology Network Association (EANA) conference, Noordwijk (Netherlands)