

UT AUSTIN PORTUGAL ANNUAL CONFERENCE 2022

International S&T Partnerships: Platforms of Science Diplomacy

OCTOBER 19 @ PORTO CRUISE TERMINAL





Celebrating a milestone: 15 years of a transatlantic journey





God wants, man dreams, and work is born.

These words by the Portuguese writer Fernando Pessoa remind us of the character of the Portuguese people who, back in the 15th and 16th centuries, set sail into the unknown and defied an unforgiving Ocean to expand the horizons of humankind.

The drive and stamina that guided the Portuguese through unchartered seas and led them to discover new worlds are the same that placed Texas and its people at the forefront of one of the most extraordinary human explorations in the 20th century. Only this time, the unchartered territory was outer space - Portuguese and Texans: two fearless people bonded by a love of exploring the unknown and breaking frontiers.

Fifteen years ago, a thriving partnership between Portugal and The University of Texas at Austin (UT Austin) was born. May the sea unite, no longer separate, as Pessoa wrote. The unbeaten paths we committed to walking together have been many since then, from the ocean to the earth and space...always in quest of science-based answers to the grand borderless challenges humankind is faced with.

This STEM-based research partnership stood the test of time: It grew stronger every year, bringing out the best in both partners and leaving its mark on Portugal's homegrown research and entrepreneurial community. Many of these outstanding achievements we can sense in present times: talent trained and mentored by the Program turning into successful entrepreneurs and experienced technology commercialization professionals; Portugal's participation in the European High-Performance Computing Joint Undertaking; strong research partnerships prompted by the Program, which continue flourishing beyond its instruments.

We now celebrate and preserve this legacy by looking back into the future while going on caring for those who navigate with us today, from our Principal Investigators and their research teams to the researchers admitted to our international mobility programs, our industry affiliates, the scientific coordinators of our advanced training, to mention a few.

It's time to place the compass towards the next destination of our transatlantic alliance: the 2030 Agenda for Sustainable Development.

We remain determined to navigate together to advance common interests on a broad spectrum of issues and to connect the next generation of minds who will help both Portugal and Texas be up to the complex challenges ahead of our societies.

Because when we dare to dream, join efforts, and have a will and a vision of science for the good of people and nations, great work is born.



15 YEARS in Numbers



15 YEARS in Numbers Education



2007

2017

311 Scholarships granted

120 PhD 211 MSc 10 Post-Docs

76 New PhDs



3 Doctoral Programs 1 MsC Program



2 International Mobility Programs

30 Short Courses 225 hours 2331 Participants

19 Researchers from Portuguese institutions 1476 days of immersive hands-on training at UT Total investment of nearly € 117K

15 YEARS in Numbers Research

11 industry-led (SRPs) 16 high-risk/high-potential (ERPs)

€ 21,9M Total public funding

More than 40 entities in Portugal and 32 PIs at UT Austin

Between 2018 and 2021 (*):

106

153

scientific job created scientific papers published in peer-reviewed journals reported research works supported, 44% being Doctoral works

(*) Includes outcomes from projects awarded funding in 2018 after the 2017 ERP Call

15 YEARS in Numbers Innovation

UTEN Portugal Global Startup Program

\$35M Wage Impact

5130M

Total Economic Impact (Returned \$40 for every \$1 invested by FCT)

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Portuguese Universities

20%

0.0

137%

increase in paten granted/year

26%

increase in licens income

132%

se in executed s/year crease in new ademic spinoffs

Technology-based companies

127%

vth ar

38% annual growth in hiring

37% growth in exportin

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The Conference Theme Explained

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International S&T Partnerships: Platforms of Science Diplomacy

THE CONFERENCE THEME EXPLAINED

In today's world, with many of the problems communities and organisations face at the local level calling for globally orchestrated responses - think of climate change or cancer diseases, for instance: they are utterly oblivious of territorial borders - science for/in diplomacy has gained prominence as never before.

For a host of reasons, some may argue that science diplomacy serves, first and foremost, expansionist and selfish ideals rather than genuinely altruistic purposes. At the same time, it would be naïve to think that science diplomacy can be sustainable if detached from (national) self-interests.

However, if we think of "science as a process for pursuing answers" and "diplomacy" as a "process for dialogue and cooperation between countries and citizens, by integrating the two, we can face challenges and take opportunities to advance humanity". [1] In other words, if both sides of a partnership find common ground – with common ground including the pursuit of social and economic progress through science-based knowledge – then science for/in diplomacy becomes a useful tool for the good of nations and scientists will surely have a lot to gain from a peaceful and more collaborative environment between countries and regions.

In this edition of our Annual Conference, we challenge you to reflect on how S&T Partnerships like ours stand in Science Diplomacy.

[1] Source: https://www.aaas.org/programs/centerscience-diplomacy/introduction

Agenda

- 10 a.m. Check-in and Welcome Coffee
- 10.30 a.m. **Opening Session**
 - 11 a.m. International S&T Partnerships: Platforms of Science Diplomacy Round Table
 - 12 noon Contributions of a 15-Year UT Austin Portugal Program to Intelligent Biomaterials for Treatment of Autoimmune Diseases and Cancer Keynote Session
 - 1.15 p.m. Networking Lunch (Courtesy of the Program) & E-Poster Exhibition
- 2.45 p.m. UT Austin Portugal's Footprint in Technology Commercialization Round Table
- 3.50 p.m. A Look to the Future: Clean Energy and the UN Sustainable Goals – Notes from the Program's Community
- 4.50 p.m. Closing Session
- 5.10 p.m. Afternoon Reception (Courtesy of the Program)

OPENING SESSION 10.30 A.M.

Setting the stage for a great event

Vítor Vasconcelos Interdisciplinary Centre of Marine and Environmental Research (CIIMAR)

José Manuel Mendonça UT Austin Portugal (Portugal)

John Ekerdt UT Austin Portugal (UT Austin)

Madalena Alves Portuguese Foundation for Science and Technology (FCT)

Elvira Fortunato Minister of Science, Technology and Higher Education (MCTES)

ROUND TABLE - 11 A.M.

International S&T Partnerships: Platforms of Science Diplomacy

Amélia Polónia FCT

Sona Ramesh United States Embassy Lisbon

MODERATOR

Luís Lacerda University College London

Elsa Henriques Luso-American Development Foundation

<mark>Tim Flink</mark> German Parliament

This round table will set the tone of this year's Conference.

High-calibre discussants from different sectors are invited on board to discuss the role of science and technology in diplomatic action and policymaking, particularly in support of tackling critical global challenges.

FCT's joint venture with the University of Texas at Austin will certainly provide an opportunity for discussants to elaborate on the importance of similar initiatives to enhance international scientific cooperation and strengthen interdisciplinary collective responses to societal missions.

12 NOON

Contributions of a 15-Year UT Austin Portugal Program to Intelligent Biomaterials for

Treatment of Autoimmune Diseases and Cancer

HOST

Helena Florindo University of Lisbon

KEYNOTE SPEAKER

Nicholas A. Peppas UT Austin

Engineering the molecular design of intelligent biomaterials by controlling structure, recognition and specificity is the first step in coordinating and duplicating complex biological and physiological processes.

Recent developments in siRNA and protein delivery have been directed towards the preparation of targeted formulations for protein delivery to specific sites, use of environmentally-responsive polymers to achieve pH - or temperature - triggered delivery, usually in modulated mode, and improvement of the behavior of their mucoadhesive behavior and cell recognition.

We address design and synthesis characteristics of novel crosslinked networks capable of protein release as well as artificial molecular structures capable of specific molecular recognition of biological molecules.

Molecular imprinting and microimprinting techniques, which create stereospecific threedimensional binding cavities based on a biological compound of interest, can lead to the preparation of biomimetic materials for intelligent drug delivery, drug targeting, and tissue engineering.

We have been successful in synthesizing novel glucose - and protein - binding molecules based on non-covalent directed interactions formed via molecular imprinting techniques within aqueous media. We have also developed structurally superior materials to serve as effective carriers for siRNA delivery to combat Crohn disease and ulcerative colitis.

ROUND TABLE - 2.45 P.M. UT Austin Portugal's Footprint in Technology Commercialization

UT Austin Portugal, particularly with its University-Technology-Enterprise Network (UTEN), has generated a deep and significant economic and social impact on Portugal thanks to training and business development activities.

From 2007 to 2012, through the development of a country-wide network of technology transfer offices and professionals, UTEN's actions have contributed, at the university level in Portugal, to a 20% increase in patents granted per year, 26% rise in executed licenses per year, a staggering 137% of increased licensing income, and 132% more new academic spinoff companies, 37% of which exported technology to the world, growing at an average annual rate of 127% in revenue. From 2012 to 2016, with the creation of the Global Startup Program, UTEN had an overall economic impact of \$95 million, translated into venture capital captured from U.S. investors, sales, and trials.

Marta Catarino University of Minho

Maria Oliveira UPTEC

MODERATOR

Marco Bravo UT Austin Portugal (UT Austin)

Verónica Orvalho Didimo

André Santos SWORD Health

P<mark>edro Bizarro</mark> Feedzai

Three Portuguese companies have been spun out by direct program actions, and these ventures generated 67 qualified jobs with a \$35 million wage impact in Portugal. The total economic impact of this initiative during this period raised \$130 million, meaning that UTEN's actions returned \$40 for every dollar invested by FCT in the Program.

This round table brings together national talent, acknowledged in their areas internationally, who have participated in some of the Program's research, technology commercialization and entrepreneurial activities to discuss the Program's contribution to Portugal's current vibrant entrepreneurial and innovation ecosystem.

3.50 p.m.

A Look to the Future: Clean Energy and the UN Sustainable Goals Notes from the Program's Community

Brian Korgel UT Austin

João Peças Lopes FEUP & INESC TEC

As we celebrate the Partnership's accomplishments in the last 15 years, it's time to take stock of the knowledge produced by some of the Program's Scientific Areas and understand whether the Program should be tapping more explicitly into research and innovation for the energy transition.

We have invited three world-class experts from our community to discuss what Portugal and Texas, through The University of Texas at Austin, can learn from each other regarding Clean Energy and together contribute to ensuring Access to Affordable, Reliable, Sustainable and Modern Energy for All, one of the 2030 United Nation's Sustainable Development Goals.

The impact of human activity on climate has never been so perceptible: in 2021, we saw fast-burning wildfires ravaging California, Greece and Turkey, while torrential rainfalls were sweeping away villages in Germany in high Summer; this year, Portugal's entire territory was put on red alert, as an unprecedented heatwave hit the country, bringing to memory the deadly fires that broke several communities in 2017; ice caps melting in the Poles at a fast pace and carrying water into the ocean put coastal towns and villages on alert for potentially devastating floods. The last decade was the warmest ever recorded, with temperatures reaching extreme levels worldwide, triggering unprecedented natural hazards.

The alarms went off, and there is a fierce urgency to transition to a net-zero economy. It's now or never, some experts warn.

João Matos Fernande University of Porto

Adriano Cerqueira 90 Segundos de Ciência

CLOSING SESSION 4.50 P.M.

Wrapping up the Day

Joana Mendonça ANI To wrap up the Annual Conference, the President of Agência Nacional de Inovação (National Innovation Agency) comes on stage to give her statement on the International Partnerships' role in science-based innovation and innovation-based growth.

In 2019, the Agency supported the launch of a Call that would fund, under the UT Austin Portugal Program, 11 industry-driven consortia coupling Portuguese companies with Portuguese academia, research institutions and UT Austin faculty and researchers.

ANI's strategic vision is to take action to connect science with companies. ANI is charged with promoting knowledge transfer in order to create value for the national economy, establishing priorities and defining indicators focused on supporting the adoption of knowledge and technology by companies and society.

Vítor Vasconcelos CIIMAR

José Manuel Mendonça UT Austin Portugal (Portugal)

PhD in Biology at FCUP, Porto. Full Professor – University of Porto (FCUP) and director of CIIMAR. Head of the Group of Blue Biotechnology and Ecotoxicology with research on cyanobacteria secondary metabolites and biotechnological applications. Director of LEGE culture collection - 1200 strains of cyanobacteria and microalgae. Member of the European Marine Board and of the Scientific Council of the National Museum of Natural History (Paris, France). Director of PhD in Marine Biotechnology and Aquaculture. Project evaluator of the Innovation Agency and various international research funding institutions.

José Manuel Mendonça is a Professor at the School of Engineering of the University of Porto, and Chairman of the Board and CEO of INESC TEC. José Manuel Mendonça graduated in Electrical Engineering at the School of Engineering, University of Porto, and obtained his Ph.D. in Electrical Engineering at the Imperial College of Science and Technology, University of London. Currently, he is also a Fellow of the IC2 Institute of the University of Texas, Austin, and a member of the High-Level Group of the European Technological Platform Manufacture.

J<mark>ohn Ekerdt</mark> UT Austin Portugal (UT Austin)

John G. Ekerdt is the Associate Dean for Research in Engineering and the Dick Rothwell Endowed Chair in Chemical Engineering at the University of Texas at Austin. Using chemical and kinetic probes to unravel reaction pathways, mechanisms and reaction rates, his research has explored: 1) kinetics of single crystal, nanoparticle and ultrathin film growth, 2) chemistry that controls film and nanoparticle nucleation on surfaces and 3) relationships between precursor molecular structure, its reactivity and the properties of the electronic material that is grown. Current research interests focus on the surface, growth and materials chemistry of metal, dielectric and perovskite films and nanostructures.

Madalena Alves FCT President of the Board of Directors of FCT. Maria Madalena Alves is a Full Professor with a PhD in Chemical and Biological Engineering by the University of Minho (UMinho). She was the head of the Centre of Biological Engineering from January 2020 until July 1 2022, when she took office as President of the FCT. She holds a degree in Chemical Engineering from the University of Porto and a master's degree in Biochemical Engineering from the Instituto Superior Técnico. She held academic and scientific management and coordination positions at UMinho, namely as course director and member of the School Council and the Scientific Council of the School of Engineering. Her research focuses on Environmental Biotechnology, having supervised several PhD candidates and researchers in said area and related fields. She was the coordinator, co-coordinator or member of several projects funded by national and European programmes. Maria Alves collaborates with a network of international researchers and welcomed to UMInho a researcher who would later win an ERC AdvG. shared with her research group – scientifically and financially. She's been participating in several assessment committees by international agencies, i.e., Helmholtz association (Germany) and the Irish and Swiss Foundations for Science. She received multiple awards, namely the Lettinga award (2004), funded by international companies, BES Inovação (2005) and the National Award of Environment Innovation (2006). In September 2009, she was awarded an honorary PhD by the Technical University of Iasi (Romania). In January 2016, she received the honorary title of Merit Citizen from Viana do Castelo municipality, her birthplace.

Elvira Fortunato MCTES Elvira Fortunato, currently Minister of Science, Technology and Higher Education of Portugal (30th March 2022-...), was Vice-Rector at Nova University from September 2017-2022, Director of the Materials Research Center (CENIMAT) and the integrated Associate Laboratory i3N, the Institute of Nanostructures, Nanomodeling and Nanofabrication (The only Portuguese research centre (1998-2022) classified as Exceptional in the Advanced Materials and Nanotechnologies area in the last national evaluation); Invited Professor at Universidade Federal de Lavras, Brazil (2013-2022). She has held other Institutional Responsibilities, such as Deputy Director of FCT NOVA (2014-17); Coordinator of Research Centers of FCT NOVA (2006-17); Member of the Executive Board of the Materials Science Department (2009-17); Coordinator of the Doctoral Programme in Nanosciences and Nanotechnology, FCT NOVA (2009-18); Member of the Scientific Committee of the PhD Program in Biomaterials (UFLA, Brasil) (2014-2022). Participation in several academic examination referees boards (PhD juries in and abroad Portugal). She received her

Bachelor's degree in Physics and Materials Engineering in 1987, obtaining, in 1995, her PhD in Microelectronics and Optoelectronics. Elvira Fortunato pioneered European research on transparent electronics, namely thin-film transistors based on oxide semiconductors, demonstrating that oxide materials may be used as true semiconductors. She is co-inventor of the paper electronics concept worldwide: Paper-e® (Short bio retrieved from CENIMAT/i3N).

Elsa Henriques FLAD Elsa Henriques holds a first degree, a master's degree and a PhD in Mechanical Engineering. She is an Associate Professor at Instituto Superior Técnico, a full member of the executive board of Fundação Luso Americana para o Desenvolvimento (FLAD) - where she leads the field of Science & Technology - and a member of the board of directors of Fulbright Portugal. Over the past 30 years, she participated in and coordinated several national and European R&D projects, in collaboration with industry, focused on complex system design processes, manufacturing systems and failure prognosis. She supervised 15 PhD students and has numerous scientific and technical publications in national and international journals and conferences (index h 21 in Scopus). She was a national delegate in the 6th and 7th Framework Programme of the European Union in the thematic area of the NMP and has been involved in the MIT Portugal initiative since its establishment, where she led the "Engineering Design and Advanced Manufacturing" programme.

Amélia Polónia FCT

Full Professor at the Faculty of Arts and Humanities of the University of Porto (FLUP) and member of the Academia Europaea – The Academy of Europe. Holds a PhD in History (2000) and aggregation (2009) from U. Porto, and an honorary PhD in Maritime History from Université Bretagne Sud (2020). She has held academic and scientific management positions, namely the Scientific Coordination of CITCEM -Transdisciplinary Research Centre 'Culture, Space and Memory' since 2017. She held the position of director of the Department of History and Political and International Studies of FLUP and was the coordinator of the European Interdisciplinary Master African Studies, an EJMD Erasmus+. She was a member of the scientific committee of the European Joint Doctorate (EJD) TEEME (Text and Event in Early Modern Europe) and a member of the EID Marie Skłodowska-Curie MOVES (Migration and Modernity. Historical and Cultural Challenges). As a Member of the Advisory Boards of ERC AdvG and Starting Grants, she coordinated several national (FCT and Calouste Gulbenkian Foundation) and international (European Science Foundation and

CYTED) funding research projects. She's a member of several Action Cost and other international research networks, and a coordinator and member of national (FCT, A3ES) and international scientific and academic project evaluation panels: European Science Foundation; FWO (Research Foundation Flanders); NWO (Netherlands) and ARSS (Slovenian Research Agency), among others. She was the scientific advisor of postdoctoral projects and PhD students (national and international) and supervised the activities of junior researchers hired under different programmes to boost scientific employment, within the scope of CITCEM. She's a member of editorial boards at Brill and Ashgate and published in indexed iournals at Scopus and Web of Science, as well as in international publishing houses (Brill, Routledge, Palgrave-MacMillan, Bloomsbury). Her scientific research falls within the field of postcolonial studies, he was a visiting professor at French, American, Israeli, Brazilian, Argentinian, and Indian universities.

Tim Flink German Parliament

Tim Flink works as a scientific advisor to the Committee of Education, Research and Technology Assessment of the Federal Parliament of Germany, serving MP Ruppert Stüwe and the Social Democratic Party on issues of science diplomacy, EU research policy, ERASMUS, health research and research data infrastructures. He is an affiliate member of the Robert Merton Center for Science Studies at Humboldt-Universität zu Berlin, where he worked as a postdoctoral researcher, lecturer and co-ordinator of the Master program Social Studies of Science. Tim is a leading international expert on science diplomacy and pioneered with the first conceptual and empirical studies in this nascent field. Further academic works cover a wide range of research and higher education policymaking issues, e.g. research integrity, university governance, EU research policymaking, and science policy advice. He also wrote the first history of the European Research Council (ERC). Prior to his academic career, Tim acted as assistant to the board of directors at the EU Liaison Office of the German Research Organisations.

Sona Ramesh United States Embassy Lisbon

Sona Ramesh is an Economic Officer at the United States Embassy Lisbon where she focuses on environment, science, technology and health issues, ranging from climate change, oceans and wildfires to global health, artificial intelligence and renewable energy. She joined the United States Diplomatic Service in 2011. Previously, she worked for the Under Secretary of State for Economic Growth, Energy and the Environment, and served in the Office of Chinese Affairs. Sona's overseas assignments include the U.S. Embassies in Kuala Lumpur, Malaysia: Seoul. South Korea: and New Delhi. India. She is the recipient of a Superior Honor Award for her work in building international collaboration on health and energy in Malaysia. Prior to joining the Foreign Service, Sona worked for global health NGOs, such as Family Health International 360. BroadReach Healthcare, and the Global Business Coalition on Health. She also served as a policy advisor for the Government of Canada, focusing on child poverty programs and health care financing. Sona holds a Master of Public Policy from Harvard University's Kennedy School of Government and a Bachelor of Arts from the University of British Columbia.

Luís Lacerda University College London

Luís Miguel Lacerda works to increase the use of research produced within UCL in the policymaking process. Luís has a strong academic background including experience as a Research Associate in Pediatric Clinical Neuroimaging at University College London and a PhD in Neuroimaging from King's College London. He shares an interest and experience in public engagement and new educational methodologies in both science and medicine. As a complement to his academic activity, from 2017 to 2019 he led the Portuguese Association of Researchers and Students in the UK (PARSUK) to create the first Scientific Advisory Board in a Portuguese Embassy. Finally, following that experience he continued to serve as the secretary of PARSUK's scientific advisory board and in parallel organised a series of knowledge exchange events on science diplomacy which were summarised in a report entitled "Developing science advice at the Embassy of Portugal in the United Kingdom".

Nicholas Peppas UT Austin

Nicholas A. Peppas is a professor in Biomedical Engineering, Chemical Engineering, Pediatrics, Surgery and Pharmacy at the University of Texas at Austin. His group has developed new drug delivery systems for oral, buccal, sublingual and gastrointestinal delivery of drugs, peptides and proteins. 1,700 publications, IF of H=192 (173,000 citations). Numerous US patents issued or pending, 3 start-up companies. Research in biomaterials, drug delivery, and bionanotechnology blends modern molecular and cellular biology with engineering principles to design next-generation medicines and devices. Awards include NAE Founders Award, NAM Adam Yarmolinsky Award, AAPS Global Leader and Distinguished Pharmaceutical Scientist Awards. Peppas is a member of seventeen Academies including NAE, NAM, American Academy of Arts and Sciences, National Academy of Inventors, Academia Europaea, International Academy of BME, Canadian, Academy of Engineering, Indian National Academy of Engineering, Chinese Academy of Engineering, Korean Academy of Science and Technology, National Academy of France, Royal Academy of Spain, Academy of Athens, Greece, Romanian Academy & Academy of Texas. He is the Editor-in-Chief of "Regenerative Biomaterials" (Oxford). He holds a Dipl.Eng. from NTU of Athens (1971), a Sc.D. from MIT (1973) and is the recipient of thirteen honorary doctorates and professorships.

Helena Florindo University of Lisbon

Helena Florindo graduated in Pharmaceutical Sciences in 2003 (University of Lisbon) and obtained her Ph.D. degree in Pharmaceutical Technology in 2008 (University of Lisbon), in collaboration with the University of London. Currently, she is an Associate Professor with tenure and habilitation in the department of Pharmacy, Pharmacology and Health Technologies at the Faculty of Pharmacy, University of Lisbon. Since 2015, she is the head of the BioNanoSciences – Drug Delivery & Immunoengineering Research Group, at the Research Institute for Medicines (iMed.ULisboa), University of Lisbon. Helena is also a member of the Portuguese Medicines Agency Evaluation Board (INFARMED) and an expert to the European Medicines Agency (EMA), thus supporting the evaluation of marketing authorization procedures for new drugs and biologics. This knowledge in regulatory sciences also guides the research within her research group, which has been motivated by the immune-oncology field towards the rational development of functionalized nanobiomaterials as novel immunotherapies for cancer treatment. It includes the characterization of the anti-tumor effects induced by the combination of nano-vaccines with nano-therapeutics designed to modulate the functions of key cells within tumor microenvironment, such as T cells, myeloid-derived cells and tumor cells.

Maria Oliveira UPTEC Maria Oliveira is the Executive Business Director of UPTEC and Program Director of the Executive Master in Business Innovation of Porto Business School where she also teaches. With more than 15 years' experience working in technology transfer, entrepreneurship and innovation management, Maria worked in several capacities in Portugal and abroad, namely in innovation consultancy, heading of U.Porto Innovation, invited fellow of Boston University, Executive Director of UTEN, a component of the UT Austin | Portugal Program. She is regularly invited as an external expert to evaluate proof of concept proposals for the European Commission and to participate in conferences and seminars. Maria graduated in Engineering (UTAD), with a M.Sc. in Innovation and Technological Entrepreneurship (U.PORTO), an Executive Certificate in Management and Leadership from the MIT Sloan School of Management and MBA from Porto Business School.

Verónica Orvalho is the founder and CEO of Didimo. She has translated years of research, data science, and computer graphics expertise into a patented technology platform to create digital humans, empowering people to engage more authentically and humanly in digital spaces. This breakthrough provides the next evolution of how humans will engage the world around them. Veronica earned a PhD in Computer Graphics and is a professor at Porto University. She has lived and worked on three continents, with companies like IBM, Sony, Amazon, Universal Studios, and more.

Verónica Orvalho Didimo

Marta Catarino University of Minho

Marta has a vast experience as a University Tech Transfer Officer, accelerating research results through business development, licensing of Intellectual Property and coaching academic spin-offs, and has been regularly invited as an expert by the World Intellectual Property Organization and major proof-of-concept funds in Europe. Marta has been a Board Member of the major European innovation management associations, including President of ASTP, and the European Association for Knowledge Transfer Professionals. She is now Head of Knowledge Transfer and Innovation at B.ACIS, the Knowledge Transfer Office of the School of Medicine of the University of Minho, focusing on maximising the impact of Life Sciences and Health research on Society.

André Santos SWORD Health André Eiras dos Santos is part of the founding team and is VP of Strategic Business Development of SWORD Health, the fastestgrowing digital musculoskeletal care company, where he leads the strategy for international expansion. MSc in Biomedical Engineering with a specialization in Medical Electronics from the University of Coimbra and an MBA from Porto Business School, was also co-founder of other 2 companies and he's frequently invited to lecture at the University of Coimbra and the University of Minho.

Pedro Bizarro Feedzai

Pedro Bizarro is co-founder and Chief Science Officer of Feedzai where he leads the Research department. Drawing on a history in academia and research, Pedro has turned his technical expertise into entrepreneurial success as he has helped to develop Feedzai's industry-leading RiskOps platform to fight financial fraud using innovations from Research. Pedro has been a visiting professor at Carnegie Mellon University, a Fulbright Fellow, and holds a Computer Science PhD from the University of Wisconsin-Madison. Pedro's main interests are high performance systems for data processing, machine learning, responsible AI, and data visualization. Pedro is also an Ironman.

Marco Bravo UT Austin Portugal (UT Austin)

Marco Bravo is the Executive Director of the UT Austin Portugal Program and also the Executive Director of the National Science Foundation's Southwest Innovation Corps (I-Corps) Node at The University of Texas at Austin. He is an engineer with diverse international experience and education, as well as significant leadership and managerial experience in the industry, in multinational business, consulting, academia, government, and startups with extensive cross-cultural literacy in Europe and the US. As an entrepreneur, Marco has co-founded three companies, with one successful exit, and a business angel fund, and actively mentored 200+ technology startups and entrepreneurs from multiple countries. His expertise focuses on entrepreneurial wealth creation, international innovation, and global technology commercialization.

Brian Korgel UT Austin

João Matos Fernandes University of Porto

João Peças Lopes INESC TEC and FEUP

Brian directs the Industry/University Cooperative Research Center (IUCRC) for a Solar Powered Future (SPF2050), the Nanotechnologies area of the UT Austin Portugal Program at UT, and serves as Associate Editor of the journal. Chemistry of Materials. He is a former Fulbright Fellow and has been Visiting Professor at the University of Alicante in Spain, the Université Josef Fourier in France and the Chinese Academy of Sciences in Beijing. He received his PhD in Chemical Engineering from UCLA in 1997 and was a post-doctoral fellow at University College Dublin, Ireland, in the Department of Chemistry. He has given more than 260 invited talks and published more than 280 papers. He is also an artist, exploring language and human/technology cohabitation. He has co-founded two companies, Innovalight and Piñon Technologies, and received various honors including the 2012 Professional Progress Award from the American Institute of Chemical Engineers (AIChE) and election to Fellow of the American Association for the Advancement of Science (AAAS). He is also a member of the National Academy of Engineering (NAE).

João Pedro Matos Fernandes is a civil engineer with a master's degree in transport. He works since 1990 both in private and public organizations in physical planning, infrastructures and urban strategy. Since 2005 he was a manager and president of port infrastructures in Portugal (Leixões and Viana do Castelo) and Mozambique (Nacala). He was president of a municipal water company (Porto) in 2013 and 2014. For six years (2015 to 2022) he was Minister of the Environment of the Portuguese Government, with responsibilities in water, sewage, urban transport, housing, energy, forests, water resources, planning and climate action.

João A. Peças Lopes is a Full Professor at Porto University (FEUP) where he teaches in the graduation and post-graduation areas and is Director of the Sustainable Energy Systems PhD program. He is presently Associate Director and Coordinator of the TEC4Energy initiative at INESC TEC, one of the largest R&D interface institutions of the Unversity of Porto. He is also a member of the accompanying national committee of the Portuguese recovery and resilience plan. His main domains of research are related to the large-scale integration of renewable power sources, power system dynamics, storage systems and security of supply, microgeneration and microgrids, smart metering and electric vehicle grid integration. He is co-editor and co-author of the book "Electric Vehicle Integration into Modern Power Networks" edited by Springer. He is a Fellow of IEEE. He was an Adjoint Professor at the Iowa State University and Visiting Professor of the University Pontificia Comillas in Madrid.

Adriano Cerqueira 90 Segundos de Ciência

Science journalist and producer of the '90 Segundos de Ciência' podcast, Adriano has over ten years of experience in the field of science communication, having previously worked in journalism, media relations, design, and documentary filmmaking. He is the author of the popular science book 'Porque Flutuam os Meus Cereais?', and holds a Master's degree in Multimedia from the Faculty of Engineering of the University of Porto, and a graduate degree in Communication Sciences.

Joana Mendonça ANI Ioana Mendonca is an Associate Professor at the Department of Engineering and Management of the Instituto Superior Técnico, where she teaches Innovation Management and Design Thinking, Entrepreneurship, and Economic Engineering as well as project units. She is an investigator at the Centre for Innovation, Technology and Policy Research IN+, where she manages the Technology Management and Policy Laboratory. Her research focuses on commercialization processes, the adoption of new technologies, and the role of human capital in those processes. Her work has been featured in Research Policy, Small Business Economics, Technological Forecasting, and Social Change publications. She is a co-coordinator for the Masters in Engineering and Management of Innovation and Entrepreneurship and the PhD program in Engineering and Public Policy. Additionally, she has been a member of the scientific board of the Carnegie Mellon Portugal international partnership since 2014 and has been the scientific coordinator for CEiiA since 2018. She was an advisor to the Minister of Economics and Innovation in 2016. Between 2013 and 2015. she was a researcher at the IN+. taking part in the IRGC international network, and a visiting professor at IST. Between 2010 and 2012, she was a vice director at the Portuguese General Directorate for Statistics on Education and Science. In 2009 and 2010, she was an adviser to the Secretary of State of Science, Technology and Higher Education. She obtained her PhD in Engineering and Industrial Management from IST, University of Lisbon, in 2009. She has a Master's degree in Engineering Policy and Management of Technology from IST and a Bachelor's degree in Technological Chemistry from the Faculty of Sciences of the University of Lisbon.

Scan the QRCode to enter the E-Poster Gallery

Navigate through some of our projects and research work from our community. Understand how our Scientific Areas are tackling global challenges from Health to Energy, More Competitive and Cleaner Industries, Climate Change (Monitoring) or Digitalisation.

POSTERS FROM OUR RESEARCH PROJECTS

SRP 2019	SENTINEL - Novel injectable biosensor for continuous remote monitoring of cancer patients at high risk of relapse	Research for Health
SRP 2019	ExtreMED - Extreme Ultrashort Pulses for Advanced Medical Applications and Diagnostics Poster Title: Few-cycle ultra-broadband beam scanning microscope prototype Poster Title: ENORA Ultrafast Laser	Research for Health
SRP 2019	TOF-PET for Proton Therapy (TPPT) - In-beam Time-of-Flight (TOF) Positron Emission Tomography (PET) for proton radiation therapy Poster Title: Time-of-Flight PET for Proton Therapy	Research for Health
ERP 2021	NxGNanoTher -Next-generation Nanomaterials to Sensitize Breast Cancer to Immunotherapy Poster Title: Next-generation nanomaterials against breast cancer	Research for Health
ERP 2021	THER-PBCT - Theranostic Strategy for Proton Boron Capture Therapy of Pancreatic Cancer	Research for Health
ERP 2021	MagTubeCancer: Magnetic Nanoparticles For Cancer Therapy: Collection And Elimination Of Circulating Tumor Cells	Research for Health
ERP 2021	2DTherapy: New 2D nanomaterials for cancer phototherapy and immunotherapy Poster Title: New 2D Nanomaterials For Cancer Phototherapy	Research for Health
SRP 2019	NanoCatRed - Novel metallic NANOparticles on NANOstructured supports for oxyanion CATalytic REDuction in water Poster Title: Optimizing bimetallic alloy catalysts for the cost- efficient reduction of bromate	Research for More Competition and Cleaner Industri
SRP 2019	MCTool21 -Manufacturing of cutting tools for the 21st century: from nano-scale material design to numerical process simulation Poster Title: Modeling diffusion in ceramic coatings Poster Title: Simulation of three-dimensional turning	Research for More Competiti and Cleaner Industri

Medical Physics Nanotechnologies Advanced Computing
Space-Earth Interactions

on Climate Change Research to Turn the Tide

Cleaner Industries

Cleaner Industries

Research to Turn the

on Climate Change

Research to Fuel the Energy Transition

Research Towards the Digital Society

Research Towards the Digital Society

Research Towards the Digital Society

Nanotechnologies

Research for Health

Graphene-based materials included in hydrogels as platforms for skin diseases treatment Filipa A. L. S. Silva

Coaxial wet-spun fibrous systems for chronic wound care Catarina S. Miranda

Synthesis and characterization of polymeric nanoparticles for T cell-based cancer immunotherapy Inês S. Pinto Poly(d,l-lactide-co-glycolide)polyethyleneimine/reduced nanographene oxide nanoparticles for chemo-phototherapy of cancer Bruno Freitas

Nanomedicines-based phototherapy with bioengineered hydrogels for skin cancer treatment Inês Pedro

Graphene-based Photoimmunotherapy of Skin Cancer Carlota M. Relvas

Bioengineered cancer cell membrane-camouflaged nanoparticles for pancreatic cancer-targeted therapeutics Miguel Pereira-Silva

Nanographene-based photoimmunotherapy Joana Moreira Biodegradable magnesium stents: A new manufacturing methodology Vítor Lopes

Nanotechnologies

Research for Energy

Optimization of subwavelength features by Nanoimprint Lithography for large-scale nanostructured solar modules

Margarida Monteirc

Plasmonic rear architecture as an efficient light management strategy for ultrathin solar cells António J.N. Oliveira

Low-cost nanofabrication for light management architectures in ultrathin solar cells Enzo Ribeiro High bandgap ACICS based solar cells with Post Deposition RbF layer Marco Alberto Curado

Industrially viable nanofabrication and simulation to boost ultrathin and bifacial CIGS solar cells André F. Violas Optimization of a spray pyrolysis process for the preparation of fluorine doped tin oxide substrates Dina Mesquita

Tailored nanolaminates for solar cells applications Xavier L. Pinheiro

CALL FOR POSTERS

Nanotechnologies Research for the Environment

Pyroelectric Gas Sensing David S. King

EVENT SUPPORTER

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International S&T Partnerships: Platforms of Science Diplomacy

