UT Austin Portugal:
A meeting of minds
an ocean apart

November 3, 2020
2.00 p.m. | 3.30 p.m. (Lisbon time)

Ever since the Age of Discovery, the Portuguese have been known to be fearless people to whom no insurmountable obstacle could hold them back from dreaming and going further.

More than six centuries have passed since the onset of this world-changing age, but the drive for breaking barriers remains a foundational trait of the Portuguese people. In today's world, Portugal is making its way in new territories – those of knowledge, forging relations with strong overseas partners and emerging as a key science and innovation world player.

The successful joint venture with UT Austin, which started more than a decade ago, is part of the country's long-term strategy to navigate and master STEM-based research to deliver impactful, transformative innovation on a global scale.

In this 90-minute session, you will get the chance to learn how the international partnership is delivering on its mission through first-person accounts of its beneficiaries and ambassadors.

Agenda

2.00 p.m. **How far have we come?**
Overview of the Program's achievements since the start of Phase 3

Rui Oliveira, UT Austin Portugal **(Institutional)**

2.05 p.m. **A breakthrough transatlantic project in the area of cancer treatment**
(2017 Exploratory Research Project DREAM – Drug delivery nanosysteM for HPV infection therapy)

Carla Cruz, UBI **(Nanotechnologies)**

2.25 p.m. **The Advanced Computing Training Program at the Texas Advanced Computing Center**

Dan Stanzione, TAAC, UT Austin
João Barbosa, formely TACC **(Advanced Computing)**

2.45 p.m. **Shaping the future of Proton Therapy: technological breakthroughs in cancer treatment equipments**
(2019 Strategic Research Project TOF-PET for Proton Therapy (TPPT): In-beam Time-of-Flight (TOF)
Positron Emission Tomography (PET) for proton radiation therapy)

Stefaan Tavernier, Petsys Electronics **(Medical Physics)**

3.05 p.m. **Navigating the Space: a new Age of Discovery for the world**
2019 Strategic Research Project uPGRADE- Miniaturized Prototype for GRavity
field Assessment using Distributed Earth-orbiting assets

Tiago Hormigo, Spin.Works **(Space-Earth Interactions)**

3.25 p.m. **UT Austin Portugal's elite of industry-driven research projects (video)**

3.30 p.m. **Final remarks**

José Manuel Mendonça, UT Austin Portugal **(Institutional)**

Carla Cruz is an Assistant Researcher in the Health Sciences Research Centre at the University of Beira Interior (CICS-UBI) and Invited Assistant Professor at the Faculty of Health Sciences- UBI. Currently, she is Vice-Coordinator of the Biopharmaceuticals and Biomaterials group at CICS-UBI and member of the Executive Board of CICS-UBI. With two patents granted and one pending, she is the Principal Investigator of 10 research projects, including the UT Austin Portugal Program, collaborating with several international institutions. She has participated in more than 60 conferences, presenting her work in many international conferences.
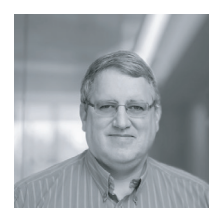
Dan Stanzione is the Executive Director of the Texas Advanced Computing Center (TACC) and Associate Vice President for Research at The University of Texas at Austin (UT Austin). He is the Principal Investigator for a National Science Foundation (NSF) grant to deploy and support Stampede2, a large scale supercomputer, which has over twice the system performance of TACC's original Stampede system. Stanzione is also the PI of TACC's Wrangler system, a supercomputer for data-focused applications. For six years he was Co-Director of CyVerse, a large-scale NSF life sciences cyberinfrastructure. Stanzione was also a Co-Principal Investigator for TACC's Ranger and Lonestar supercomputers, large-scale NSF systems previously deployed at UT Austin. In the UT Austin Portugal Program, he serves as the Area Director of Advanced Computing at Austin.
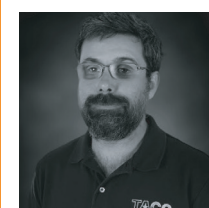
João Barbosa joined TACC's Scalable Visualization team in 2011 as a Graduate Research Assistant in High-Performance Graphics and Scientific Visualization. As a full-time Research Associate at TACC, João has worked in several SciVis projects that range from high-level applications such as Gas and Oil to low-level high-performance software packages such as GraviT and pvOSPRay in partnership with leading hardware and software companies. His current research focus lays in high-performance real-time in-situ photo-realistic ray tracing for SciVis. During his time at TACC, João also served as a mentor of the participants under the Advanced Computing Training Program. Now he will be joining the Minho Advanced Computing Center (MACC) as a full-time researcher in Scientific Visualization.

Stefaan Tavernier, Professor, has spent most of his scientific career developing detectors, mainly for particle physics. He has been the Principal Investigator of the CERN NA25 experiment and the spokesperson of the CERN RD-18 Project (Crystal Clear collaboration) for 15 years. Since 1990, he gradually became interested in applications of particle physics in field of Medicine. In 2010, he retired as a Full Professor at the University of Brussels, and founded the company PETsys Electronics, together with Professor João Varela, from IST Lisbon. PETsys Electronics is providing electronics to many of the major research institutes in the world such as Lawrence Berkeley Lab, NASA, Sandia Labs, CERN, ETH Zurich, KEDA and other top universities.

Tiago Hormigo is co-founder of Spin.Works, an aerospace company dedicated to the development and manufacturing of aerostructures and unmanned systems for the Aeronautics, Space and Defence markets, as well as Head of Space Business Development and Project Manager. Tiago Hormigo previously worked has a Project Engineer of EADS Astrium and as Senior Engineer with the Advanced Projects Team at Deimos. In 2002, he was part of the European Space Agency Center's Mars Express Mission, as Mission Analyst. Tiago Hormigo has a Master's degree from Delft University of Technology in Aerospae Engineering.