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Re-UNITA RESEARCH Newsletter

Editorial

The Re-UNITA project is near to its deadline and it is time to think about its impact on our universities.
At the University of Zaragoza, we especially value the contribution of the project to the promotion of innovation, through the Seeding Proof of Concept and the Innovation Prize calls or highly qualified training programmes as the SpinOff Forum or the Autumn School where we have developed training in entrepreneurship through the successful experiences of SpinOffs and entrepreneurs, and also the dissemination of nearby services for the support of the entrepreneurship of our researchers.
We also appreciate the mutual knowledge of the vice-rectorships for research and internationalisation. A very important interest group has been created that allows us to share practices and strategic objectives among all the universities, which will surely have an impact on our future plans.
In addition, pilot exchanges in scientific infrastructures have taken place in scientific infrastructures and also job-shadowing exchanges that facilitate contact between technical and scientific staff from the different universities.
Finally, human resources have been an important part of our project, with mentoring programmes carried out mainly by women being one of the most successful, facilitating the path for PhD students.
In short, Re-UNITA enables the implementation of common long-term research strategies and roadmaps that will facilitate the continuous improvement of research in our universities.

Francisco Beltrán Lloris
Vicerrector for International Relations and Cooperation

Rosa Mª Bolea Bailó
Vicerrector for Research
University of Zaragoza, UNIZAR

Cultural Heritage

Choral Cultural Heritage Outreach in RomAnce Languages

CHORAL PROJECT

As part of the UNITA Alliance, a first cohort of 14 doctoral students will enrol in the CHORAL programme in cultural heritage.
Coordinated by the Université de Pau et des Pays de l'Adour, CHORAL (Cultural Heritage Outreach in RomAnce Languages) is a Horizon Europe Marie Sklodowska Curie programme co-funded by the European Union. It is linked to the Cultural Heritage Hub, an international research network within the Alliance, which structures its research ecosystem in response to challenges related to culture.
CHORAL aims to train top-level international researchers and encourage the development of interdisciplinary, international and cross-sectoral research on all aspects of cultural heritage.
The candidates selected in this first call will enrol in co-tutored doctoral programmes that will require international mobility. Students will benefit from dedicated events and a tailor-made doctoral training programme.
A total of 3 calls will be open (the next in November 2024 and then in 2025) for 42 scholarships on multiple doctoral research topics in 7 universities of the UNITA Alliance for fully-funded 3-year PhDs.
Discover the Laureates of first cohort

University de Pau et des Pays de l'Adour

Circular Economy

Inhabiting water. Documenting women's urban practices (city, landscape, rurality, washhouses).

Inhabiting water is a project created at the end of 2019, for a master thesis at FAUP, focused on the city of Porto, that the architect Chloé Darmon know PhD Candidate (CiAUD.UBI) developed since, with three main fronts:

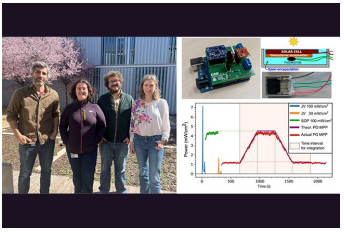
a. making women visible in the urban space/history of cities by rescuing archives (public and private).
b. preserving the memory of washhouses as temporal and ephemeral fragments in the city, marks of its past rurality
c. emphasizing the importance of water in women's community practices and also as a challenge for our metropolises today and in the coming centuries, with particular attention to domestic and care work.

The main objective of this project is to rethink the uses and reactivation of the washhouses within the scope of Circular Economy.

University of Beira Interior
Link of the project: https://linktr.ee/habitar.agua

CV: https://www.cienciavitae.pt/portal/6110-4A14-078A

Renewable Energies



This research introduces a new method to maximize power output from perovskite solar cells, an emerging renewable energy technology. The team developed a cost-effective system that tracks the optimal power point of these cells more effectively than existing methods, especially for highly stable designs. This innovation allows for long-term stability measurements and improved performance, particularly in cells with high hysteresis (a lag in electrical response). The findings are significant for the wider adoption of perovskite solar cell technology, potentially advancing sustainable energy solutions. For more detailed information, readers can access the full article at [https://doi.org/10.1016/j.xcrp.2024.101885].

University of Zaragoza

PhD student of the month

Woman researcher of the month

Infrastructure of the Month

On 4 July, 18 doctoral students took part in My 3 min PhD Thesis competition in PAU (la Centrifugeuse – PAU Campus). This popular and international science competition was open to all doctoral students from the 12 UNITA member universities.
Selected from their respective institutions, the 18 young researchers had to present their research work effectively to a non-specialist audience within the allotted time. The second edition of this major event symbolised the new impetus for research within the UNITA Alliance and the dynamism of our young researchers.

Winners of the 2nd edition:

Rebecca SABATINI (UNITO)
Exposing humans: Mummies, rituals and the creation of a heritage.
(Cultural heritage)

Irene VIOLA (UNITO)
Establishment of an in vitro model to study autophagy during early placental development in the ewe.
(Veterinary Science)

Karla CSUROS (UVT)
Get to Work! A corpus-based investigation into the language of contemporary American sitcoms in the workplace.
(Philology / Cultural Studies)

Ângela Sousa obtained her PhD in Biochemistry (2011), was awarded with 2 Post-Doc grants (2012/2015), a research contract by DL57 (2018), and since 2023 is Assistant Researcher (CEEC Institutional) and Invited Assistant Professor from University of Beira Interior. Her scientific career has been focused on the development of biotechnological platforms for the biosynthesis, isolation and purification of DNA vectors (such as the new minicircle DNA, devoid of prokaryotic sequences) and formulate drug/DNA delivery systems, in order to apply these bioproducts as DNA vaccines or gene therapy approaches against cervical cancer, COVID-19 and lung cancer diseases. She is also devoted to biotechnological processes to produce recombinant proteins to find potential biomarkers and natural or synthetic drugs (inhibitors) for different cancer therapy, by in silico (molecular docking and dynamics), biophysical and *in vitro* studies. In the last 3 years she had 6 projects awarded, among which the "DryVac: Dry powder mannosylated minicircle DNA nanoVaccine against Cervical Cancer" being awarded by Foundation for Science and Technology (2023.00136.RESTART) (https://www.ubi.pt/Noticia/7541) and "NanoDeteC: Versatile nano-sensor for early detection of cervical cancer" awarded by ARRISCA C 2024 business ideas (https://www.ubi.pt/Noticia/7787).

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SAI_General Research Support Service
https://sai.unizar.es/

It is a service of the University of Zaragoza and it offers the treatment of any solid that you want to study. The works that can be carried out directly by the service include microscopic preparations, mineralogical and metallographic polishing, grinding and preparation of samples, facing said samples for subsequent compression tests.

Many of its equipment and services can be requested through the ReUNITA project, with financial support from the project.

As example: Preparation of rocks and hard materials service.
https://reunitaresearchinfrastructure.i3a.es/en/node/34

Researchers interested in using this infrastructure can benefit from a grant.

More information and contact details at this link:
https://reunitaresearchinfrastructure.i3a.es/en/faq

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