

**MARTI I FRANQUES COFUND
DOCTORAL PROGRAMME**

**NEWSLETTER
2022**



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THE MFP COFUND PROGRAMME

The **Martí i Franquès COFUND Doctoral Programme** (MFP) is a redesign of the existing URV's Martí i Franquès Programme. Since its beginning on 2017 we have offered 100 doctoral contracts, in four editions: 2017-2018 and 2020-2021) at the URV. The programme is uniquely shaped to offer the best training stemming from the "triple i" principles of the **Marie Skłodowska-Curie Actions**: international, interdisciplinary and intersectoral. We combine leading research groups at URV with scientific partners from world-class institutions, such that the candidates will be exposed to interdisciplinary training as well as mentoring from the no-academic sector. Through MFP, URV is in a unique position to offer the best conditions for doctoral training, based on the principles of the

European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, as well as the EU Principles for Innovative Doctorate Training.

The positions are based on individual projects encompassing all areas of research at URV: Sciences, Health Sciences, Arts and Humanities, Engineering, Social and Legal Sciences.

As a result of the 2020 and 2021 Calls, we have hired **49 PhD researchers** from all over the world. You can view all the [profiles](#) in our website, including information about the bios, the PhD project, and the main achievements of each fellow.

CALL 2020

- [Ubaid Ahmad](#)
- [Giulio Burgio](#)
- [Regan Ceaser](#)
- [Julia Marine Chrétien](#)
- [Jesús David Coral Pérez](#)
- [Gohar Ijaz Dar](#)
- [Vittoria Dentella](#)
- [Stylianou Fanourakis](#)
- [Antonio Forente](#)
- [Kurias George](#)
- [Srishti Goyal](#)
- [Génesis María Guarimata](#)
- [Ronaldo Luís Höhn](#)
- [Farnoosh Hormozinezhad](#)
- [Muzahir Hussain](#)
- [Florijan Jalsevac](#)
- [Muhammad Faizan Khan](#)
- [Camilla Masullo](#)
- [Tahereh Mokary Yazdely](#)
- [Tasneem Binte Morshed](#)
- [Zacharia Ng'ang'a](#)
- [Naga Pandurangi](#)
- [Charalampos Papadakis](#)
- [Deepak Parajuli](#)
- [Satyam](#)
- [Kandeel Shafique](#)
- [Hussain Ahmed Tariq](#)
- [Daniel James Tarr](#)
- [Mostafa Zarandi](#)

CALL 2021

- [Shaira Jane Acosta](#)
- [Marco A. Bustamante](#)
- [Giulia Campaioli](#)
- [Giuseppe Colella](#)
- [Christine El Khoury](#)
- [Fabiola García Reyes](#)
- [Sharanpreet Kaur](#)
- [Younas Khan](#)
- [Shiza Khaqan](#)
- [Matheo López Pachón](#)
- [D. Francheska Márquez](#)
- [Mattia Mattei](#)
- [Ali Naseri](#)
- [Mubdiul Islam Rizu](#)
- [Debashish Roy](#)
- [Alejandro Santos](#)
- [Fahimeh Tavafi](#)
- [Erika A. Torres](#)
- [Mohammadali Zoljalali](#)

CALL 2020



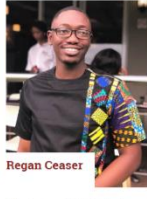
Ubaid Ahmad

Distributed Power Electronics Architectures for Photovoltaic Power Plants



Giulio Burgio

Higher-order dynamical processes on networks



Regan Ceaser

Valorization of hydrolysates from lignocellulosic biomass via a combined catalytic and biological approach



Julia Chretien

Caring amongst older lesbians: an ethnography of subversion?



Jesus Coral

Design, fabrication and characterization of an optofluidic device intended for cancer cells detection



Gohar Ijaz Dar

Advanced nanostructures for photonic biosensors



Vittoria Dentella

Grammar, grammaticality and acceptability



Stylianos Fanourakis

Sustainable process systems engineering



Antonio Forente

Development of a microfluidic device for microplastic concentration measurements in water



Kurias George

Experimental and numerical study of the layout of wind turbines for offshore wind farms



Shristi Goyal

Climate Change and its Distributional Impacts



Genesis Guarimata

Impact of PhD supervisory training: measurement and improvement



Ronaldo Luis Höhn

Numerical simulations and experimental study of multiphase flows in a bubble column reactors



Farnoosh Hormoznezhad

Rheological study of droplet formation in biofluids



Muzahir Hussain

Inflammation and autophagy in the gut: searching for new therapeutic targets in unhealthy ageing



Florian Jalsevac

Economotopic bitter taste receptors as targets for better health in the obesity or the ageing



M. Faizan Khan

A deep learning approach for identifying metabolites by mass spectrometry-based metabolomics



Camilla Masullo

Language processing and the bilingual mind



Tahereh Mokary

Light-driven transformation of carbon dioxide into fuels and chemicals



Tasneem Morshed

Female travelers in the age of social media



Zacharia Ng'ang'a

Gut barrier function in livestock



Naga Pandurangi

Bio-Electrochemical Tools for Integration of Bio/Geo Systems and Electronic Components



Charalampos Papadakis

Financial Integration in Europe during the 19th-20th Centuries



Deepak Parajuli

Electro-hydrodynamic flows for the creation of biomedical nanostructures and devices



Satyam

New concepts applied to cross-flow turbines



Kandeel Shafique

Rapid and cost-effective diagnostic tools to fight infectious diseases



Hussain Tariq

Theoretical and experimental investigation on sorption processes



Daniel Tarr

Sustainable development of tailor-made smart catalysts for industrial processes and energy



Mostafa Zarandi

Optimal design and optimization of sustainable chemical processes

CALL 2021



Shaira Jane Acosta

Rapid detection of Mycobacterium tuberculosis antibiotic resistance



Marco Andrés Bustamante

Effects of laccase on wine quality



Giulia Campaioli

The role of culture on gender-based violence in Brazil



Giuseppe Colella

Particulate models for dynamics of colloidal suspensions



Christine El Khoury

Techno-economic and environmental assessments of existing and emerging processes and technologies



Fabiola Garcia Reyes

Effect of phenolic compounds on alterations caused by disruption of the circadian rhythm



Sharanpreet Kaur

Clinical, Psychosocial And Biological Predictors of the Course of Neurodevelopment Disorders



Younas Khan

Synergies between Machine Learning and Privacy



Shiza Khagan

Dialogic leadership in schools for social transformation



Matheo López Pachón

Modelling bio-locomotion to shed light in the evolution of Lissamphibia clade



Dalia Francheska Márquez

Equality policies in universities and science



Mattia Mattei

Modelling of the interaction between epidemic spreading and social dynamics



Ali Naseri

Particulate models for fluid mesoscopic simulations



Mubdiul Islam Rizu

High Frequency FETs for Gas Sensing



Muzahir Hussain

Inflammation and autophagy in the gut: searching for new therapeutic targets in unhealthy ageing



Florian Jalsevac

Economotopic bitter taste receptors as targets for better health in the obesity or the ageing



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A deep learning approach for identifying metabolites by mass spectrometry-based metabolomics



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Language processing and the bilingual mind



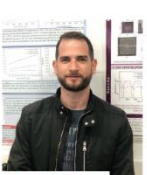
Tahereh Mokary

Light-driven transformation of carbon dioxide into fuels and chemicals



Debashish Roy

Doctoral Training for Enhancing European Doctorate Holders' Employability across Disciplines: Co-creating transversal skills with industry



Alejandro Santos

Development of wearable electronic devices



Fahimeh Tavafi

Mobility of cruise passengers in the city of Barcelona after COVID-19: analysis of its spatial logic and its relationship with the urban environment



Erika Torres

Evaluation Of Treatments for the Removal of Microplastics In Urban Wastewater Treatment Plants



Mohammadali Zojjalali

Efficient H2 production in microfluidic platforms and sensing based on optical fibers

VISIBILITY OF THE PROGRAMME

During this year, our programme has been presented in different events, contributing to URV's **international visibility**. We also have participated in different institutional initiatives, making the MFP PLUS programme known within the URV community.

On 2022, our Twitter profile has reached over **500 followers** and has accumulated over **1,500 tweets**



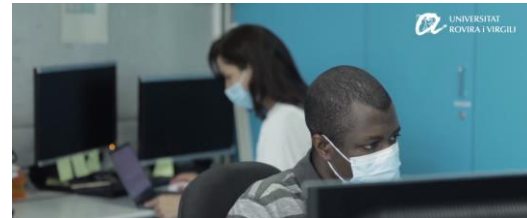
We have participated in institutional social networks initiatives to promote **women participation in science**



On 2022 we finished the selection of the **30 new fellows** within the 2nd Call of the MFP PLUS, in addition to the 20 already selected in 2021



On the occasion of the **finalisation of the first MFP programme**, we have produced a **video** summarising our experiences and the main achievements of the fellows



We have presented our programme and share our experience in different **meetings, conferences and events**, such as the EARMA Annual Conference or the 10th AGAUR Research managers meeting



We have brought together all the fellows, on the occasion of the **mid-term review meeting** with the project officer of the **European Research Executive Agency**

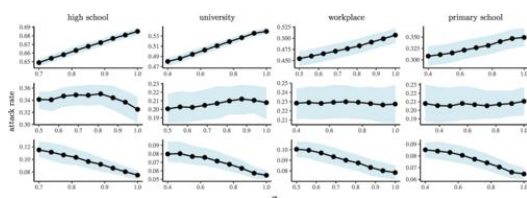


SCIENTIFIC PUBLICATIONS

As a result of the research work carried out by the fellows and their supervisors, during 2021-2022 **five open access articles** have been published, following the European Commission's **open science policy**.

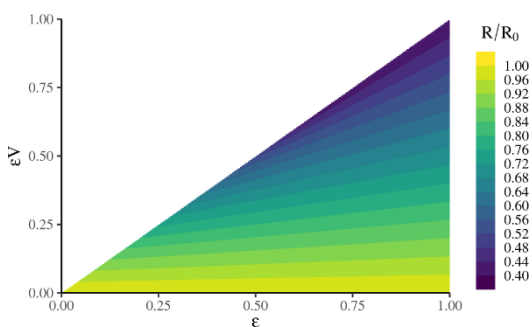
Burgio, G.; Steinegger, B.; Rapisardi, G.; Arenas, A. (2021). Homophily in the adoption of digital proximity tracing apps shapes the evolution of epidemics. *Phys. Rev. Res.* 3(3)

[10.1103/PhysRevResearch.3.033128](https://doi.org/10.1103/PhysRevResearch.3.033128)



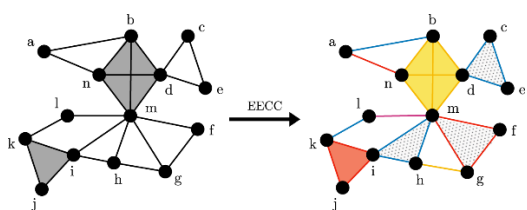
Burgio, G.; Steinegger, B.; Arenas, A. (2022). Homophily impacts the success of vaccine roll-outs. *Commun Phys* 5(70)

[10.1038/s42005-022-00849-8](https://doi.org/10.1038/s42005-022-00849-8)



Burgio, G.; Arenas, A.; Gómez, S.; et al. (2021). Network clique cover approximation to analyze complex contagions through group interactions. *Commun Phys* 4(111).

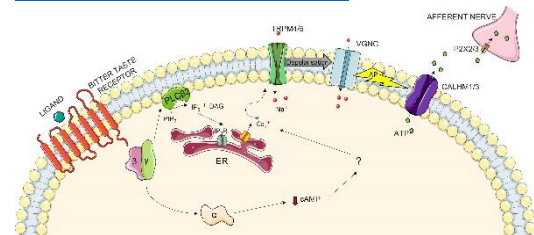
[10.1038/s42005-021-00618-z](https://doi.org/10.1038/s42005-021-00618-z)



Jalševac, F.; Terra, X.; Rodríguez-Gallego, E.; Beltran-Debón, R.; Blay, M.T.; Pinent, M.; Ardèvol, A. (2022). The Hidden One:

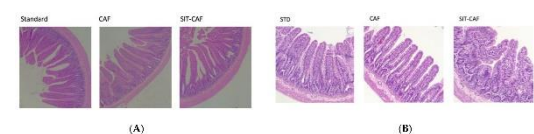
What We Know About Bitter Taste Receptor 39. *Frontiers in Endocrinology*, 13

[10.3389/fendo.2022.854718](https://doi.org/10.3389/fendo.2022.854718)



Segú, H.; **Jalševac, F.**; Pinent, M.; Ardèvol, A.; Terra, X.; Blay, M.T. (2022). Intestinal Morphometric Changes Induced by a Western-Style Diet in Wistar Rats and GSPE Counter-Regulatory Effect. *Nutrients* 14(13)

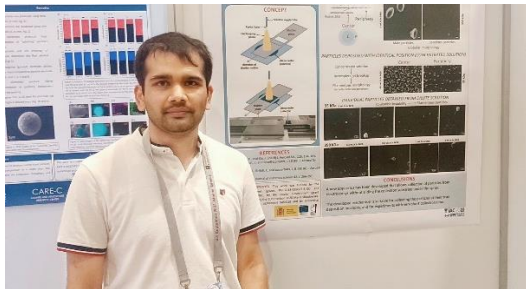
[10.3390/nu14132608](https://doi.org/10.3390/nu14132608)



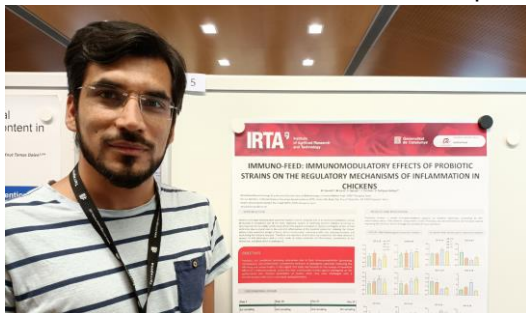
CONFERENCES

In order to present their **research results**, the MFP PLUS fellows have participate in several national and international conferences.

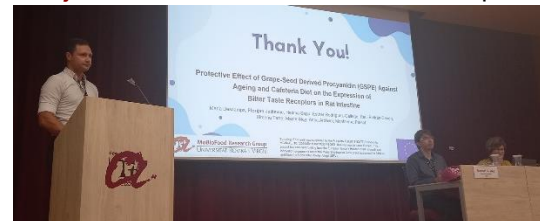
Deepak Parajuli, International Aerosol Conference 2022, Greece



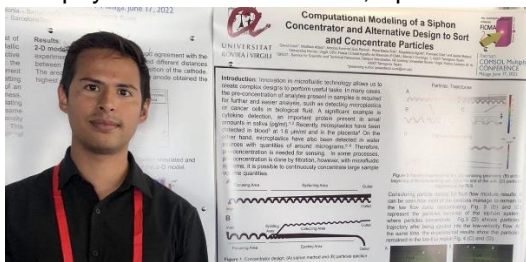
Muzahir Hussain, NUGO Week 2022, Spain



Florijan Jalševac, NUGO Week 2022, Spain



Jesús D. Coral, Iberian COMSOL Multiphysics Conference 2022, Spain



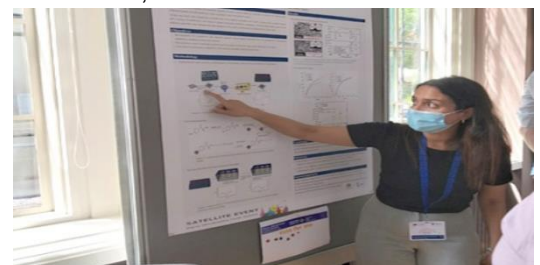
Giulio Burgio, Conference of the Sociotechnical Complex Systems Association 2022, Spain



Camilla Masullo, BCN Summer School on Bi- and Multilingualism 2022, Spain



Kandel Shafique, ESOF - MSCA Satellite Even 2022, Netherlands



OUTREACH ACTIVITIES

So far, the MFP PLUS fellows have participated in **27 outreach activities**, mainly at **European Researchers' Night** (2021 and 2022), but also at other events such as the **Science Week**, **EstiURV** or the **MSCA Falling Walls Competition**.

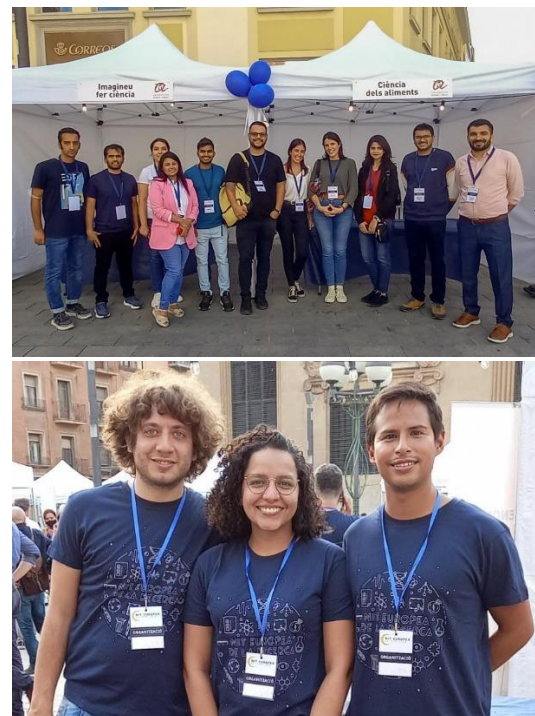
Kandeel Shafique has participate in the MSCA internal phase of the Falling Walls Competition in Paris



24 contributions of MFP PLUS fellows to **European Researchers' Night**, for 2021 and 2022 editions, in all types of activities: workshops in the central event, talks at the schools, and poster presentations in the European Corner



Tasks of volunteering during the organisation of the **European Researchers' Night**, for 2021 and 2022 editions



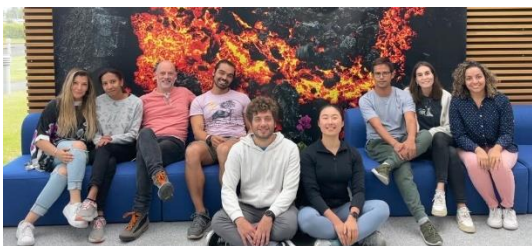
TRAINING

Transferable skills can enhance the career mobility and increase the chances of success in landing the job one wants, and they can help give a competitive edge when applying for a position. Being aware of the importance of these skills in the career development of the fellows, we are offering an extended array of training courses.

As part of the PhD studies, the MFP PLUS fellows have been offered with an extensive training package on transversal skills. **13 courses** have been offered internally at the URV



As the URV is member of the **AURORA partnership of European universities** (Co-funded by the Erasmus+ Programme of the European Union, under grant agreement No 101035804), some fellows have benefited from the Summer School on Soft Skills development through video gaming, hosted by University of Iceland



In addition, 29 MFP PLUS fellows have been participating in **VERSA – Video Games for PhD Soft Skills Training** (within the Call Science with and for Society, under grant agreement No H2020-SwafS-08-2019-2020)



Moreover, also as part of the fellows' training, Muzahir Hussain and Charalampos Papadakis have already carried out their **international secondments** at Københavns Universitet (Denmark) and Université de Genève (Switzerland), respectively

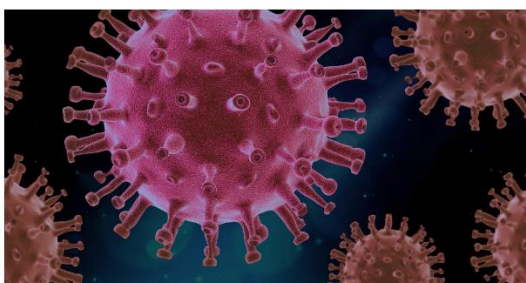


URV'S DIGITAL NEWSPAPER

Fellows' research achievements and general news about the MFP PLUS programme have been highlighted in the **institutional newspaper**. During 2021 and 2022, up to 11 pieces of news have been published.

A URV research team succeeds in predicting SARS-CoV-2 mutations using artificial neural networks

The Cheminformatics and Nutrition research group of the University has designed a machine learning system that predicts recurrent mutations of coronaviruses, information that will allow new drugs to be developed



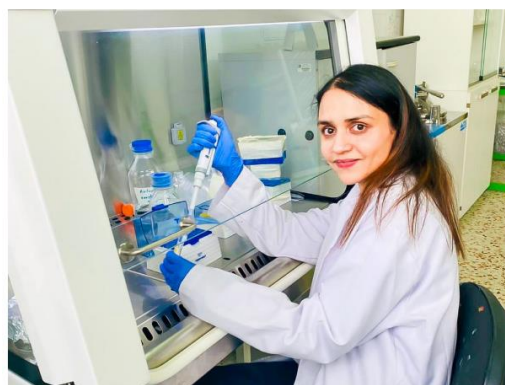
The European Research Night science workshops attract more than 2,500 people to Plaça Corsini

The informative workshops in Reus and the Antoni de Martí i Franquès scientific tour of the city complete a weekend devoted to scientific communication.



Doctoral researcher Kandeel Shafique will represent URV in the internal phase organised by Marie Skłodowska-Curie Actions for the world-class pitch competition Falling Walls

The Falling Walls competition is an opportunity for researchers to present their innovative ideas and projects to the international scientific community



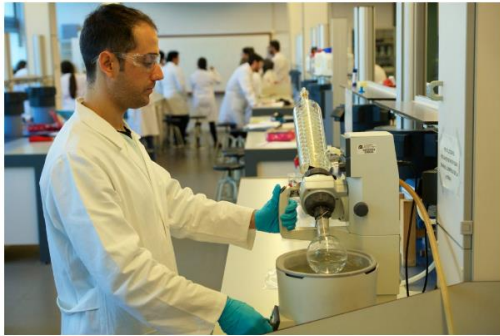
The URV receives 894 applications from around the world to fill 65 doctoral positions

The applicants are applying for a place on the Martí i Franquès program, in its Standard, Banco Santander and MSCA-COFUND editions. The successful candidates will take up their positions at the University as from December 2021 and will be given contracts of up to three years



Call opened for 61 doctoral contracts at the URV as part of the Martí i Franquès programme

This Thursday, 1 July, is the first day for applications for each one of the three editions of the programme: standard, with 28 contracts; COFUND, with 20, and Banco Santander, with 13. The deadline for applications is 6 September 2021



A European project gets underway to improve the “soft skills” of doctoral programmes

Video gamEs for Skills trAining (VERSA) is a project led by the Postgraduate and Doctoral School of the Universitat Rovira i Virgili, and in which two other universities from the Aurora network are also taking part: the University of Innsbruck and the Vrije Universiteit Amsterdam. The Ibero-American Knowledge Foundation is also participating



The URV finishes the selection of predoctoral researchers on the Martí i Franquès programme

The selection process took place between January and February and about 20 candidates have already signed their contracts with the University. In total, 71 new doctoral students from 19 countries all over the world will be starting work. Their theses will be supervised by almost 100 lecturers



The URV receives almost 1200 applications from around the world for just 76 doctoral degree places

The applications are for the Martí i Franquès programme, both in its standard format and the MSCA-COFUND version, and they are from 60 and 90 different countries respectively. The individuals chosen will join the University between December this year and April 2021



The URV has opened a call for 76 predoctoral contracts for the Martí i Franquès programme

This Tuesday, 15 September, the application period was opened for both of the programme's sections: the standard section, for which there are 45 places on offer, and COFUND, for which there are 31. The deadline for applications is 15 November 2020



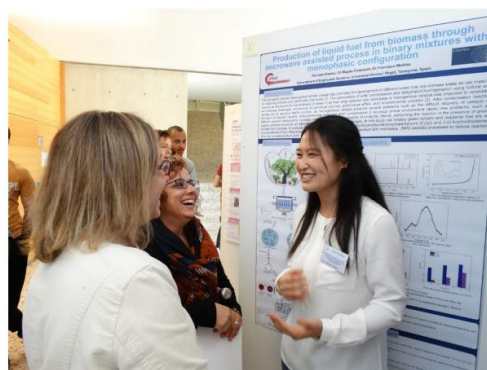
The URV consolidates its position as the leading Spanish institution in terms of European funding received to train research staff

Since 2014, URV has received 7.9 million euros for two projects of the COFUND-doctoral programme Marie Skłodowska-Curie Actions (MSCA)



The URV wins for the second time a European project that will enable it to contract 50 predoctoral researchers

The European Commission has awarded the URV's Martí i Franquès programme more than four million euros to be used to contract 50 predoctoral researchers. The selection process will take place over two editions in 2020 and 2021, and the chosen candidates will each be awarded a three-year contract. The university will contribute a further four million euros to the project. The URV is one of three institutions in Spain to have received funding in the last call of the European Commission's COFUND-DP programme, and it is the one that has received the most money



MISCELLANEA

As part of the URV community, the MFP PLUS fellows have been involved in the **day-to-day university life**, organising events and seminars, visiting URV's collaborating institutions, or participating in the activities of their research groups, departments and PhD programmes.

Julia Chrétien, co-organiser, during the monthly Lesbian-Feminist Theory seminar in the Department of Anthropology, Philosophy and Social Work



Matheo López Pachón's first days at Mechanical Engineering Department of the URV



Hussain Tariq and **Gohar Ijaz Dar** visiting the offices of CENFIM Cluster & Innovation in La Sénia



Kandeel Shafique has participated in the campaign "Stories of Human Values" of the Catalan Ministry of Research and Universities. View the full [video](#)!



Social activities of the research group MoBioFood, to which **Zacharia Waithaka Ng'ang'a**, **Florijan Jalševac** and **Muzahir Hussain** are ascribed.



Farnoosh Hormozinezhad during the recording for the institutional video for celebrate the International Day of Women and Girls in Science. View the full [video](#)!



Martí i Franquès COFUND Doctoral Programme

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