# Horizon 2020 Marie Sklodowska Curie Actions PROFILE FORM – Expression of Interest

Organization Name / Department	Universidad Nacional de Córdoba (UNC)	Organization Short Name	UNC
Organization Type	<ul> <li>☑ University</li> <li>☐ Public Research Centre</li> <li>☐ Large Scale Enterprise</li> <li>☐ Small and Medium Scale Enterprise</li> </ul>	<ul><li>☑ Public Body</li><li>☐ International NGO</li><li>☐ National NGO</li></ul>	
Research Fields		Sub-Fields / Keywords:  Engineering and Architecture, Art and artistic production, Agricultural and Veterinary sciences, Social and Political sciences, Economics and Law, Mathematics, Astronomy and Physics, Natural sciences, Health and Medicine, Education, Philosophy and Psychology, Clinical research, Chemical sciences, Language sciences and Humanities.	
Short Description of the Organization / Department	UNC (https://www.unc.edu.ar/english/) comprises 15 Faculties, each of them organized into departments, institutes, centers, and chairs for Research, Development, and Innovation (RDI) activities: Faculty of Urban Planning, Design, and Architecture(http://faud.unc.edu.ar/); Faculty of Arts (http://artes.unc.edu.ar/); Faculty of Agricultural Sciences(http://www.agro.unc.edu.ar/); Faculty of Communication Sciences(http://fcc.unc.edu.ar/); Faculty of Economics (http://www.eco.unc.edu.ar/); Faculty of Economics (http://www.eco.unc.edu.ar/); Faculty of Exact, Physical and Natural Sciencehttp://www.portal.efn.uncor.edu/); Faculty of Medical Sciences (http://www.fcm.unc.edu.ar/); Faculty of Chemical Sciences (http://www.fcq.unc.edu.ar/); Faculty of Social Sciences (http://sociales.unc.edu.ar/); Faculty of Philosophy and Humanities (https://www.ffyh.unc.edu.ar/); Faculty of Philosophy and Humanities (https://www.ffyh.unc.edu.ar/); Faculty of Mathematics, Astronomy, Physics and Computing (http://www.famaf.unc.edu.ar/); Faculty of Odontology (http://www.odo.unc.edu.ar/); Faculty of Psychology (http://www.psyche.unc.edu.ar/).  UNC also comprises 7 research centers, as follows:  Institute of Environmental Studies (www.unc.edu.ar/ciencia-y-tecnologia); Latin American Center for Interdisciplinary Education - Sustainability and Development Node (www.unc.edu.ar/ciencia-y-tecnologia); Astronomical Observatory (http://oac.unc.edu.ar/); Transport Studies Center (https://rdu.unc.edu.ar/); Transport Studies Center (https://rdu.unc.edu.ar/); Aboratory of Hemoderivatives (http://unc-hemoderivados.com.ar/).		

	*No. of	
Research Areas	Projects	%
Engineering and Architecture	174	13
Art and Artistic Production	40	3
Agricultural and Veterinary Sciences	93	7
Social and Political Sciences	122	9
Economics and Law	122	9
Mathematics, Astronomy and Physics	127	9
Natural Sciences	98	7
Health and Medicine	97	7
Education, Philosophy and Psychology	145	11
Clinical Research	71	5
Chemical Sciences	161	12
Language Sciences and Humanities	111	8

<sup>\*</sup>Projects funded by UNC.

The following are research Centers/Institutes that report to UNC and **CONICET** (Scientific and Technical Research Council of Argentina -http://www.conicet.gov.ar/), UNC and **CONEA** (National Commision on Space Activities -http://www.conae.gov.ar/index.php/english) and to UNC andother State organisms related to RDI:

CIECS: Center for Research and Study on Culure and Society (http://www.ciecsconicet.gob.ar/); CIBICI: Center for Research in Clinical Biochemistry and Immunology (http://cibici.fcq.unc.edu.ar/en); CICTERRA: Research Center on Earth Sciences (http://cicterra.conicet.unc.edu.ar/about-cicterra/); CIEM: Center for Research and Study on Mathematics of Cordoba (http://www.famaf.unc.edu.ar/~ciem/); CIQUIBIC: Research Center on Biological Chemistry of Cordoba (http://ciquibic.fcq.unc.edu.ar/); IATE: Institute of Theoric and Experimental Astronomy (https://iate.oac.uncor.edu/); IDIT: Institute of Advanced Study on and Technology (http://www.inv.idit.efn.uncor.edu/); IFEC: Institute Engineering Experimental Pharmacology of Cordoba; IFEG: Enrique Gaviola Institute of Physics (http://www.famaf.unc.edu.ar/ifeq); IMBIV: Multidisciplinary Institute of Plant Biology (http://imbiv.unc.edu.ar/); INFIQC: Institute of Research in Physical Chemistry (http://www.fcq.unc.edu.ar/infiqc); INIMEC: "Mercedes y Martín Ferreyra" Institute of Medical Research (http://www.immf.uncor.edu/); ICYTAC: Institute of Science and Food Technology (http://www.icytac.conicet.unc.edu.ar/); IDACOR: Institute of Antropology of Cordoba (http://museoantropologia.unc.edu.ar/); IDEA: Institute of Diversity and Animal Ecology (http://www.idea.conicet.unc.edu.ar/); IDH: Institute of Humanities (http://idh.unc.edu.ar/); IIBYT: Institute of Biological and Technological Research (http://www.iibyt.conicet.unc.edu.ar/); INICSA: Research Institute on Health Sciences; IPQA: Institute of Research and Development in Process Engineering and Applied Chemistry; UNITEFFA: Unit of Research and Development in Pharmaceutical Technology (http://www.unitefa-conicet.gov.ar/); and CIJS: Legal and Social Research Center.

# Previous Related Projects / Research Experience

In the last ten years, UNC's researchers have conducted different collaborative projects with the following Latin American countries, including but not limited to, Brazil (University of São Paulo, University Campinas,etc), Chile (Chilean Forest Institute [INFOR], Universidad de Concepción, Universidad Católica de Chile), Colombia (Universidad de la Amazonia), Mexico (Instituto de Ecología AC, Veracruz); and with the following European countries, including but not limited to, Spain (Universidad Coplutense de Madrid, Basque Centre for Climate Change, Universidad Autónoma de Madrid), Germany (UniversitätHohenheim, Karlsruhe Institute of Technology, TechnischeUniversität Darmstadt, UniversitätOsnabrück, etc.), Italy (Università di Bologna, IstitutoSuperiore per la Protezione e la Ricerca, etc.), France(Institut National Polytechnique Toulouse, Universitéde Toulouse, etc.); United Kingdom (University of Cambridge,London Natural History Museum, University of Southampton, University of York, etc.) Austria (University of Leoben).

Given the large number of collaborative research projects with local, national and international scientific institutions, conducted by each Faculty, the following are provided as example:

#### Faculty of Exact, Physical and Natural Science

Accumulation of polycyclic aromatic hydrocarbons and heavy metals in the tree foliage of Eucalyptus rostrata, Pinus radiata and Populus hybridus in the vicinity of a large aluminium smelter in Argentina. Rodriguez JH, Wannaz ED, Salazar MJ, Pignata ML, Fangmeier A, Franzaring J. Atmospheric Environment 55(2012) 35-42.

#### Faculty of Agricultural Sciences

Physico-chemical and functional characterization of protein isolated from different quinoa varieties (Chenopodium quinoa Willd). Steffolani ME, Villacorta P, Morales-Soriano E, Repo-Carrasco R, León AE, Pérez GT. Cereal Chemistry 93 (2016) 275-281.

#### Faculty of Medical Sciences

Collaborative Hub for Research on Mental Health in Latin America. Columbia University Global Mental Health Program. NIMH - USA. 2011 – 2017 (1U19MH095718). Collaboration between Universidad de Santiago de Chile, Universidad Federal de Río de Janeiro, Universidad de Antioquia and coordinated by Columbia University (New York). Resposible at UNC: A. Ruth Fernández.

## **Facultyof Chemical Sciences**

Reversing peptide sequence reversion impacts on molecular surface behaviour. Ambroggio EE, Caruso B, Villarreal MA, Raussens V, Fidelio GD, Colloids and Surfaces B: Biointerfaces., 139 (2016) 25-32.

# **Faculty of Odontology**

TXRF Analysis of Metals in Oral Fluids of Patients with Dental Implants. JA Abraham, HJ Sánchez, MS Grenón, CA Pérez. X-Ray Spectrometry 43 (2014) 193–197.

# Faculty of Mathematics, Astronomy, Physics and Computing

Proposal for an ICMI Study. Mathematics teachers working and learning in collaborative groups. Co-Chairs: O Robutti and C Esteley. International Comission in Matethematical Instruction (ICMI).

### Faculty of Urban Planning, Design, and Architecture

Arquitectura del hábitat colectivo para la densificación urbana. Los tejidos urbanos como infraestructura ambientales en áreas centrales y pericentrales. Caso Córdoba II. Las tecnologías de la densidad. Atlas de casuística y proyectos(30720150101657CB). Director: CA Nanzer, Codirector: MD Fiorito.

#### Astronomical Observatory

lonization and feedback in Ly $\alpha$  haloes around two radio galaxies at z  $\sim$  2.5. Morais. S. G.; Humphrey, A, Villar-Martín, M, Lagos, P, Moyano, M, Overzier, R, di Serego Alighieri, S, Vernet, J, Fernandes, CAC.Monthly Notices of the Royal Astronomical Society, Volume 465, Issue 3, p.2698-2713 (MNRAS Homepage).

# Short Description of the Project idea (if foreseeable)

UNC is willing to become a host or partner institution for European projects and researchers seeking to work in collaboration on research and innovation proposals in any of the research areas mentioned above. Particularly, the University focuses on encouraging an interdisciplinary approach to solve specific scientific problems that need the input from various international teams. The UNC ultimate goal is to increase the scope and quality of the research activities conducted by combining funds, human resources and expertise.

### Marie Skłodowska-Curie: "Global Fellowships [MSCA-IF-GF]"

# **Related Call**

Any other collaborative action involving RDI activties.

UNC aims to become a National Contact Point for different RDI activties.

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