UNITED NATIONS UNIVERSITY
UNU-BIOLAC
Programme for Biotechnology in Latin America and the Caribbean

Call for Applications: Special Fellowship Member Programme at the University of Granada

UNU-BIOLAC is now accepting applications to be part of our Special Fellowship Member Programme at the University of Granada.

Following our mandate to train high level professionals in biotechnology for the Latin America and the Caribbean region, UNU-BIOLAC is expanding its capacity development opportunities through a joint fellowships programme with the University of Granada.

Applications are sought from young PhD professionals who combine the highest level of research excellence with a demonstrated passion for delivering impact in biotechnology.

A maximum of three fellow positions for the 2020 period are available.

Offered research fields:

Currently, the call is open to attend the four specific research lines listed as follows.

UNITED NATIONS UNIVERSITY
UNU-BIOLAC
Programme for Biotechnology in Latin America and the Caribbean

Research Line 1
A new approach against superbugs with supervisor Jose Mª DOMINGUEZ-VERA (Department of Inorganic Chemistry-Institute of Biotechnology).

Contact information:
Telephone: +34 958248097
E-mail: josema@ugr.es

Relevant Publications:
• Skin color-specific and spectrally-selective naked-eye dosimetry of UVA, B and C radiationsNature Communications (2nd revision) 2018.
• Ambient Protection of Few-Layer Black Phosphorus via Sequestration of Reactive Oxygen Species. Advanced Materials 2017, 29, 1700152. IF2016=19,79.
• Identification of the key excreted molecule by Lactobacillus fermentum related to host iron absorption. A. Gonzalez, N. Galvez, J. Martin, F. Reyes, I. Perez-Victoria, J.M. Dominguez-Vera. Food Chemistry 2017, 228, 374-380. IF2016=4,52.
• Magnetic study on biodistribution and biodegradation of oral magnetic nanostructures in the rat gastrointestinal tract. M. Martín, A. Rodríguez-Nogales, V. Garcés, N. Gálvez, L. Gutiérrez, J. Gálvez, D. Rondón, M. Olivares, J. M. Dominguez-Vera. Nanoscale 2016, 8, 15041. IF2016=7,367
• Electrochromic Polyoxometalate Material as sensor of Bacterial Activity. A. González, N. Gálvez, M. Clemente-Leon, J.M. Dominguez-Vera. Chemical Communications 2015, 51, 10119-10122. IF2015=6,567.

UNITED NATIONS UNIVERSITY
UNU-BIOLAC
Programme for Biotechnology in Latin America and the Caribbean

Research Line 2:

Entomopathogenic bacteria for the control of vector borne diseases with supervisor Susana Vilchez Tornero (Department of Biochemistry and Molecular Biology I-Institute of Biotechnology).

Contact information:
Telephone: +34 958240071
E-mail: svt@ugr.es

Relevant Publications:

• Domínguez Flores, T., M.D. Romero Bosquet, D. M. Gantiva-Díaz, M.J. Luque Navas, C. Berry, A. Osuna, S. Vílchez. 2017. Using phage display technology to obtain Crybodies active against non-target insects. Scientific Reports 7(1):. doi: 10.1038/s41598-017-09384-x.
• García-Ramón, DC, C Berry, C Tse, A Fernández-Fernández, A Osuna, S. Vílchez. 2017. The parasporal crystals of Bacillus pumilus strain 15.1: a potential virulence factor? Microbiol Biotech. 2017 Oct 12. doi: 10.1111/1751-7915.12771. [Epub ahead of print]
• Garcia-Ramon, DC., C. A. Molina, A. Osuna y S. Vílchez. 2016. An in-depth characterization of the entomopathogenic strain Bacillus pumilus 15.1 reveals that it produces inclusion bodies similar to the parasporal crystals of Bacillus thuringiensis. Applied Microbiology and Biotechnology. 100: 3637-54.
• García Ramón, DC, L. Palma, C. Berry, A. Osuna, S. Vilchez. 2015. Draft Genome Sequence of the Entomopathogenic Bacterium Bacillus pumilus 15.1, a Strain Highly Toxic to the Mediterranean Fruit Fly Ceratitis capitata. Genome Annoucement. Vol. 3 e01019-15.

Research Line 3:

Bioactive Peptides with supervisor Emilia María Guadix Escobar (Department of Chemical Engineering-Institute of Biotechnology)

Contact information:
Telephone: +34 958242925
E-mail: eguadix@ugr.es

• F.J. Espejo-Carpio, A.Guadix, E.M.Guadix. 2014. Spray drying of goat milk protein hydrolysates with angiotensin converting enzyme inhibitory activity. Food and Bioprocess Technology, 7(8): 2388-2396.
• P.J García-Moreno, F.J Espejo-Carpio, A Guadix, E.M. Guadix. 2015. Production and identification of angiotensin I-converting enzyme (ACE) inhibitory peptides from Mediterranean fish discards. Journal of Functional Foods, 18: 95-105
• R. Morales-Medina, F. Tamm, A. Guadix, E.M. Guadix, S. Drusch. 2016. Functional and antioxidant properties of hydrolysates of sardine (S. pilchardus) and horse mackerel (T. mediterraneus) for the microencapsulation of fish oil by spray-drying. Food Chemistry, 194: 1208-1216.
• Gálvez, R.P., Carpio, F.J.E., Guadix, E.M., Guadix, A., 2016, Artificial neural networks to model the production of blood protein hydrolysates for plant fertilisation, Journal of the Science of Food and Agriculture 96: 207-214

Research Line 4:

Proteomics Chagas Disease, focusing on the proteomic characterization of virulent and virulent strains of Trypanosoma cruzi with supervisor Luis Miguel de Pablos Torró (Department of Parasitology-Institute of Biotechnology). This work serves as a starting point for the study of knock-in and knock-out of possible virulence factors using techniques such as high-throughput endogenous tagging using PCR fusion and Crispr-Cas9

Contact information:
Telephone: +34 958244163
E-mail: lpablos@ugr.es

UNITED NATIONS UNIVERSITY
UNU-BIOLAC
Programme for Biotechnology in Latin America and the Caribbean

Relevant Publications:

• Seco-Hidalgo V, Osuna A, De Pablos LM. 2018. Characterizing Cell Heterogeneity using PCR fingerprinting of Surface Multigene Families in Protozoan Parasites. Methods in molecular biology (Clifton, N.J.). 1745 (https://doi.org/10.1007/978-1-4939-7680-5_15) pp 277-286. Editorial Humana Press, New York, NY.
• De Pablos LM, Kelly S, de Freitas Nascimento J, Sunter J, Carrington M.2017. Characterization of RBP9 and RBP10, two developmentally regulated RNA-binding proteins in Trypanosoma brucei. Open Biology Impact Factor: 4.822. (Q1 (54/289), BIOCHEMISTRY & MOLECULAR BIOLOGY). (http://dx.doi.org/10.1098/rsob.160159).
• Díaz Lozano IM, De Pablos LM, Longhi SA , Zago MP, Schijman AG, Osuna A. 2017. Immune complexes in chronic Chagas disease patients are formed by exovesicles from Trypanosoma cruzi carrying the conserved MASP N-terminal region. Scientific Reports. Impact Factor: 5.228. (Q1 (7/63), MULTIDISCIPLINARY SCIENCES).15 (doi: 10.1038/srep44451.)
• De Pablos LM, Díaz Lozano IM, Jercic MI, Quinzada M, Giménez MJ, Calabuig E, Espino AM, Schijman AG, Zulantay I, Apt W, Osuna A. 2016. The C-terminal region of Trypanosoma cruzi MASPs is antigenic and secreted via exovesicles. Scientific Reports Impact Factor: 5.228. (Q1 (7/63), MULTIDISCIPLINARY SCIENCES). 8 (doi: 10.1038/srep27293.).

What does it mean to be a member of the special fellowship programme?

The UNU-BIOLAC special membership programme aims to foster biotechnology for social development in Latin America and the Caribbean. Thus, the selected members are expected to actively promote science to a broad audience, engage in policy debate, and foster international and interdisciplinary collaboration.

UNITED NATIONS UNIVERSITY
UNU-BIOLAC
Programme for Biotechnology in Latin America and the Caribbean

Age/career point:

Applicants should be young PhD professionals affiliated with a university or research institution, or graduate students in pursuit of completing an experimental work in progress.

Eligibility:

- Applicants should have a PhD degree (preferable, but not mandatory)
- Any applicant from Latin American and the Caribbean countries qualifies
- Candidates must be currently involved in an active research project
- Affiliation with a university or research institution is mandatory
- Research fellowships should be framed by any of the priority area of interest of UNU-BIOLAC
- Applicants who have previously been granted a fellowship by UNU-BIOLAC will not be eligible until 3 years from the date of their previous fellowship's final report delivery.

Expectations:

Each UNU-BIOLAC Special Fellow Member is expected to perform specialised research for a maximum of three months at the University of Granada under the supervision of the host Principal Investigator of the research lines listed above. Afterwards, the fellow will deliver a final report with their findings and follow all requests related to their membership.

UNITED NATIONS UNIVERSITY
UNU-BIOLAC
Programme for Biotechnology in Latin America and the Caribbean

UNU-BIOLAC Special Fellows are also expected to:

• deliver a written statement regarding their experience at the University of Granada, which will be included in their final report; to record a testimonial video;

• increase their contact network, expand their research groups, and deliver a monthly report with their updates; and
• to upload content on social media that reflects the experimental work they are carrying out at the facility

To perform their research, each fellow will receive from UNU-BIOLAC/University of Granada the air tickets, hosting and food at University of Granada. A monthly laboratory fee (USD 500) will be available by the host laboratory to cover bench fees during the fellowship.

Application Process

Please note that you will have to contact and receive previous approval from a research line supervisor before applying for the membership.
All applicants should download the Fellowship application form, and all mandatory documentation, that must be sent to: applications.unu.biolac@gmail.com

UNITED NATIONS UNIVERSITY
UNU-BIOLAC
Programme for Biotechnology in Latin America and the Caribbean

The email must contain the following information:
Email Subject: Special Fellowship Member Application 2020: "name of the applicant"
Email Text:
1. Name of the applicant and proposed research project
2. Priority research area
3. Intended dates for the fellowship

*Attach all the mandatory documentation:
- Work Plan for Fellow Candidate (Application form)
- Fellowship Application Form: Acceptance of Conditions of Grant by Applicant
- Fellowship Application Form: Acceptance of Conditions of Grant by Director of Applicant's Institution.
- Fellowship Application Form: Medical Report
- Personal Resume
- Mentor and Supervisor Resumes
- Acceptance letter

Please note that for an application to be considered it MUST be oriented towards UNU-BIOLAC priority areas. Any application that does not meet this requirement will need to be accompanied by a justification. Special considerations will be made for subjects that are relevant to the region

Applications will be received until August 31st

To apply, please send your proposals and companion documents only through:

applications.unu.biolac@gmail.com

Inquries: unu.biolac@gmail.com

our web site: biolac.unu.edu