

# UNIVERSITY OF PUERTO RICO RIO PIEDRAS CAMPUS COLLEGE OF NATURAL SCIENCES



TITLE	POST-DOCTORAL position in Butterfly Evolutionary Developmental		
	Biology: Omics, Computational Science, and AI Third AD		
GRANT	E-RISE RII: Cracking the developmental blueprint of life: Omics, computational		
	science, and artificial intelligence		
TYPE OF CONTRACT	Special Appointment		
BASIC SALARY	\$50K – \$65K annually	TYPE OF WORK	FULL TIME (37.5 hrs./week)
DATE OF PUBLICATION	November 25, 2025	APPLICATION PERIOD	Until February 27, 2026
STARTING DATE	April 1, 2026		
WHO QUALIFIES TO APPLY: ALL CANDIDATES THAT REUNITE ALL SPECIAL REQUISITES FOR THE POSITION			

#### JOB DESCRIPTION X

## Postdoctoral Position in Butterfly Evolutionary Developmental Biology, Omics, and AI

A unique opportunity to explore how genomes shape life's diversity. We are seeking a highly motivated Postdoctoral Fellow to join a dynamic and international research team investigating the molecular mechanisms of development and evolution using butterflies as a model system. This multi-year project integrates omics, computational biology, imaging, and AI to uncover the genomic architecture and molecular logic underlying organismal development.

This ambitious NSF-funded project aims to illuminate the **genome-to-phenome pathway** and decode how cells acquire diverse fates to build tissues, organs, and traits through evolution. By combining **genomics**, **transcriptomics**, **epigenomics**, **proteomics**, **metabolomics**, and **AI-driven data integration**, we will chart the cellular and molecular processes that shape complex traits in two butterfly species. The project brings together researchers across **seven institutions within the University of Puerto Rico system** and a broad network of **national and international collaborators**, offering a highly interdisciplinary and collaborative environment.

The project offers a comprehensive professional development program, including workshops on omics data generation, computational analysis, AI, entrepreneurship, and science communication. These activities are designed to strengthen research and transferable skills for careers both inside and outside academia.

### **Responsibilities:**

- Design and conduct experiments
- Analyze complex omics datasets
- Maintain big data repositories
- Develop computational pipelines
- Prepare manuscripts for publication in peer-reviewed journals
- Present research findings at conferences and seminars
- Mentor graduate and undergraduate students
- Interact and collaborate with the other postdocs
- Assist in grant writing and project management

#### **Qualifications:**

- Ph.D. in Genetics, Developmental Biology, Genomics, Bioinformatics, Computational Science, or a related field. It is ok if the degree will be obtained within a few months of the position starting date.
- Strong background in computational science and/or molecular biology techniques
- Proficiency in bioinformatics and data analysis (e.g., R, Python, Unix/Linux)
- Experience with next-generation sequencing data analysis
- Excellent written and verbal communication skills
- Ability to work independently and as part of a collaborative team
- Publication record in peer-reviewed journals

## **Salary basic information:**

We are offering a highly competitive Postdoctoral salary (from \$50K to 65K with full benefits) that will match the candidate's qualifications.

## Why Join Us

This position offers an exciting opportunity to pursue **cutting-edge research** in a supportive, multidisciplinary environment—while enjoying the **vibrant research community and natural beauty of Puerto Rico**.

Learn more: NSF Award #2435987

Principal Investigator: Riccardo Papa – Google Scholar

## To Apply:

Please submit the following documents:

- 1. Cover letter describing your research interests and experience
- 2. Curriculum vitae
- 3. Two representative publications
- 4. Contact information for three references

Review of applications will begin immediately and continue until the position is filled. Selection of candidates will close by February 27, 2026 for follow-up interviews. Exceptions can be made for cases of extremely motivated and qualified applicants that might apply later to this date. Starting date is April 1, 2026 but can be flexible depending on the applicant.

All documents must be submitted to the following electronic address before or by February 27, 2026.

Attention to : Dr. Riccardo Papa, Department of Biology

Subject : **Application – The Blueprint of Life** 

e-mail : <a href="mailto:riccado.papa@upr.edu">riccado.papa@upr.edu</a> and <a href="mailto:rpapa.lab@gmail.com">rpapa.lab@gmail.com</a>

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