

# Ruth R. Almodóvar Pérez

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## EDUCATION

Master's of Science in **Biochemistry** from the University of Puerto Rico (UPR) Mayagüez

Bachelor in Science in **Industrial Biotechnology** from the University of Puerto Rico (UPR) Mayagüez

## WORK EXPERIENCE

- CDI Laboratories, Inc. from July 2012 – Present:
  - October 2014 to Present: Lead Protein Production Scientist
    - Principal Investigator in charge of process development for the production an HIV vaccine candidate by means of a recombinant HIVenv protein. This project is a collaboration with the University of Puerto Rico (UPR) and the National Institutes of Health (NIH).
    - Responsible for both upstream and downstream process development of the project.
  - July 2014 to May 2015: Lead Protein Production Scientist
    - Responsible for the technology transfer and in charge of the Antigen Production pipeline in yeast
  - August 2013 to January 2014: Special Project Scientist, in Baltimore, MD:
    - Participated in various company sponsored projects as a joint venture with the Johns Hopkins School of Medicine.
      - Antibody validation via western blot, immunoprecipitation and immunofluorescence.
      - Mammalian cell transfection for generating source material for antibody validation.
      - Part of a team in charge of the purification of source proteins for antibody production.
      - Contributed to other projects with basic protein microarray data acquisition.
  - July 2012 to July 2014: Protein Production Scientist
    - In charge of mouse monoclonal antibody purification for validation and final commercial product
    - Involved in other projects with diverse clients:
      - Responsible for recombinant protein expression and purification.
- Finca Don Pupa, Inc. from 2015 – Present:
  - R&D Specialist
    - Support business growth and program development by planning and collaborating with field experts
    - Responsible for negotiating business oriented goals with scientific activities.
- Lilly del Caribe, Fall 2007:
  - Intern
    - Manufacturing Sciences and Technology student intern in charge of optimizing sample preparation in downstream chromatography step to increase yield.

## **RESEARCH EXPERIENCE**

- 2009 – 2012
  - *“Cloning and expression of novel centrin targets”*
    - Involved in cloning of centrin target HsSfi1p7 and consequently express human Krr1
  - *“Expression and Purification of novel centrin target Krr1”*
    - In charge of large and low scale expression of various human Krr1 clones
    - In charge of designing a purification protocol for the novel ribosome protein Krr1
  - *“Fourier Transform Infrared Spectroscopy of human centrin1, human centrin2 and its complex with target peptide human Sfi1p21”*
    - Responsible for running FT-IR experiments to further analyze centrin isoforms and the binding relationship between centrin and its target Sfi1
- Fall 2007
  - Manufacturing Sciences and Technology Laboratory Internship at Lilly del Caribe
    - *“Buffer Addition Yield Dependence for Reverse Phase Charge Prep”*
- Spring 2009 - Electrochemistry:
  - *“Development of Novel Bio-Fuel Cells using Wastes and Sediment Rich in Bacteria”*
    - The Coulombic output of a microbial fuel cell was measured in a cell using waste rich in bacteria and organic sediments.
    - Designed a new cell compartment for the analysis
- Spring 2007- Plant Biotechnology:
  - *“Chlorate Absorption Evaluation as a Substitute for Nitrate in Different Cassava Varieties”*
    - Experimental design to evaluate the effect of different chlorate concentrations in cassava varieties by using chlorate to block the nitrate adsorption pathway.
- Spring 2006 – Plant Biotechnology and Electrochemistry:
  - *“Electrochemical analysis used to identify the activity of Fe<sup>+2</sup> and Fe<sup>+3</sup> in a solution of KCl at different scan rates with different types of electrodes”*
    - Measured the activity of iron at physiological pH for correlation with hemoglobin uptake.
  - *“Application of Simple Sequence Repeat Markers for Genotype Differentiation of 22 Cassava Cultivars”*
    - In charge of in vitro Cassava propagation, tissue culture and embryo selection for further transformation.

## **TECHNICAL SKILLS AND QUALIFICATIONS**

- Experience with Automated Systems and Methods
- Responsible for data acquisition and analysis
- Familiar with Bioreactors and Cell Culture (bacterial, mammalian cells and yeast)
- Fully bilingual (Spanish/English)
- Proficient in the use of computers and software (Microsoft Word, Excel, LIMS)
- Knowledge in diverse protein-protein interaction assays
- Able to work alone or as part of a group
- Bioprocess Development and Optimization in R&D

## **TEACHING AND COUNSELOR WORK EXPERIENCE**

- 2009 – May 2012
  - Teaching Assistant (TA)
    - General Chemistry lab instructor in Chemistry Department at UPR-RUM
- Summer 2007
  - Biotech Summer Camp Counselor
    - I was in charge of leading a group of high school juniors through the different aspects of a bachelor's in Industrial Biotechnology

### **PRESENTATIONS, TECHNICAL FORUMS and PUBLICATIONS**

- 2017
  - “A toolbox of immunoprecipitation-grade monoclonal antibodies against human transcription factors.” in bioRxiv, awaiting publication in Nature Methods
- 2013
  - “Relative stability of human centrin and its relationship to calcium binding” in Biochemistry
- 2011-2012
  - Lilly Technical Forum, Lilly del Caribe
- 2007 – 2012
  - Sigma Xi poster presentation

### **HOBBIES/OTHER ACTIVITIES**

- Languages:
  - Studied French Grammar and Linguistics at La Sorbonne in Paris, France
- Travel
- English literature