

Daniela Estefanía Cárdenas Villacrés

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Education

August 2018-present:

PhD in Plant Pathology - University of Florida.

September 2016-July 2017:

Master in Biotechnology - Universidad Autónoma de Madrid , Spain.

October 2006-June 2013:

Engineer in Biotechnology – Universidad de las Fuerzas Armadas-ESPE, Ecuador.

September 2000-July 2006:

High school degree with emphasis in Chemical Biology - Experimental Bilingual Education Unit Angel Polibio Chaves, Ecuador.

Research experience

I have experience in molecular biology, human and environmental microbiology, water sanitation control, microalgae identification, immunological tests of Dengue, Chikungunya, viral load and CD4 in HIV, blood sampling, microbiological blood analysis, culture media, flow cytometry, PCR, RT-PCR, western blot, inverted microscopy, immunohistochemistry, primer design. I have knowledge in bioinformatics and know how to use the following software programs: Word, Power Point, Excel, Project, Genius, Tree View, Quantity One.

Awards and Honors

August 2018-present:

Assistantship for PhD program in Plant Pathology (University of Florida).

September 2016-July 2017:

Scholarship of Excellence in Postgraduate program in Molecular Bioscience - Master in Biotechnology Universidad Autónoma de Madrid.

October 2014-February 2015:

Scholarship for an internship in the Plant Pathology Department (Oklahoma State University).

Professional experience

April 2018-July 2018:

Genetic resources specialist at Universidad Regional Amazónica IKIAM - National Environment Department of Ecuador.

Responsibilities: Conservation of the biodiversity of Ecuadorian amphibians and sustainable use of their genetic resources.

January 2017-June 2017:

Master research assistant in the Laboratory of Experimental Nephrology and Vascular Pathology - University Hospital Foundation Jiménez Díaz, Ecuador.

Responsibilities: Study of the mechanisms of nephrotoxicity of Omeprazole in cell cultures.

May 2015-September 2016:

Laboratory analyst at the Institute for Research in Public Health (INSPI), Quito-Ecuador.

Responsibilities: Processing of samples for diagnosis of diseases (Rotavirus, Dengue, Chikungunya, Rubella and Measles). Analysis of CD4 and HIV viral load for epidemiological studies in human health.

October 2014-February 2015:

Assistant researcher at the Laboratory of Plant Pathology at Oklahoma State University.

Responsibilities: biological characterization of *Bipolaris* spp. (*Cochliobolus* spp.) and *Agrobacterium* transformation.

November 2013-May 2014:

Undergraduate researcher and teacher assistant at the Microbiology Laboratory of the University of the Armed Forces-ESPE, Ecuador.

Responsibilities: Identification of microalgae in San Pablo Lake, laboratory accreditation, preparation of culture media and analysis of blood samples, urine, water and food.

October 2012-January 2013:

Research in Environmental Laboratory of the University of the Armed Forces-ESPE, Ecuador.

Responsibilities: microanalysis of arsenic and invertebrates in water at Papallacta.

January 2013-February 2013:

Laboratory assistant at the Autonomous National Institute of Agricultural Research (INIAP), Ecuador.

Responsibilities: tissue culture and micropropagation of tomato; analysis of DNA extraction, PCR and sequencing on corn.

February 2012-March 2012:

Laboratory assistant at the "Fundación Un Canto a la Vida Hospital Padre Carolo", Ecuador.

Responsibilities: microbial blood and urine analysis, taking blood samples to patients.

June 2012-July 2012:

Laboratory assistant in the Tissue Culture Laboratory at the University of the Armed Forces-ESPE, Ecuador.

Responsibilities: Micropropagation of violet.

January 2011-March 2011:

Laboratory assistant at microbiology laboratory in the Company of Drinking Water and Sanitation of the Metropolitan District in Quito, Ecuador (EPMAPS).

Responsibilities: Analysis of *Cryptosporidium* sp., *Giardia* sp. and microalgae.

April 2007:

Laboratory safety talks at Polytechnic School of the Army, Engineering Biotechnology, University of the Armed Forces-ESPE, Ecuador.

Research projects

- Discovery of active compounds derived from the secretion of the skin of Ecuadorian amphibians with potential applications in biomedicine (April-July 2018).
- Mechanisms of death caused by the nephrotoxicity of omeprazole in cell cultures (January-June 2016).
- *Agrobacterium* based transformation of *Bipolaris* spp. to express the fluorescent protein tdTom (October 2014-February 2015).
- Identification and biological characterization of *Bipolaris* spp. (*Cochliobolus* spp.) infecting species of *Cynodon* influenced by culture, nitrogen fertilization and host organ (October 2014-February 2015).
- Identification and isolation of microalgae from the San Pablo Lake province of Imbabura. (October 2014-February 2015).
- Analysis of *Cryptosporidium* sp., *Giardia* sp. at the different stations of the Water Company in the Metropolitan District of Quito (January-March 2011).

Training

- Assistant at the XLIX Jiménez Díaz memorial lesson organized by the Conchita Rábago Foundation of Jiménez Díaz, Madrid-Spain (May 2017).
- Development and discovery of drugs, Universidad Autónoma de Madrid (February 2017).
- International course in investigation and outbreak control, World Health Organization, Quito-Ecuador. November 2015)
- Workshop in virology, Universidad Politécnica del Litoral, Guayaquil-Ecuador July 2015).
- Design primers course, Oklahoma State University (December 2014).
- Training in molecular biology, Universidad de las Fuerzas Armadas, Ecuador (2013 and 2014).
- Identification workshop microalgae and zooplankton at EPMAPS, Ecuador (2011).
- Assistant at the ninth Congress of Science and Technology ESPE, Universidad de las Fuerzas Armadas ESPE, Ecuador (May 2014).
- Assistant at the fourth Congress of Science and Technology ESPE, Universidad de las Fuerzas Armadas ESPE, Ecuador (June 2011).
- Assistant at the third Congress of Science and Technology ESPE. Universidad de las Fuerzas Armadas ESPE, Ecuador (June 2008).
- ESPE Laboratory Safety Workshop. Universidad de las Fuerzas Armadas, Ecuador (April 2007).

Languages

- Spanish (mother tongue)
- English score, TOEFL Certification
- Mandarin Chinese, currently studying

References

- Alma Koch, MSc Director
Laboratory of Microbiology at the University of Forces Armed- ESPE, Ecuador
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- Ana Belén Sanz Bartolomé, PhD Investigador
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- Nathan Walker, PhD Professor
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