

Carlos Andrés Antolínez-Delgado, Ph.D.

Citizenship Colombian
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Interests

Vectors and vector-borne diseases, integrated pest management, vector behavior, mechanisms of transmission of phloem restricted pathogens, plant-insect-pathogen interactions

Education

- 09/2013 – 07/2017 **Ph.D. Sustainable Agriculture**
Emphasis in crop protection
Distinction: *Summa cum laude*
Spanish National Research Council (CSIC) / Universidad Politécnica de Madrid.
Madrid, Spain
Research subject: Vector-mediated transmission of *Candidatus Liberibacter solanacearum* and its epidemiological consequences
- 01/2009 – 12/2010 **M.Sc. Biological Sciences**
Emphasis in microbiology
Universidad de los Andes. Bogotá, Colombia
Research subject: Effect of *Phytophthora infestans* in the physiology and the induction of pathogen related proteins in *Physalis peruviana* (cape gooseberry)
- 01/2000 – 05/2007 **B.Sc. Biology**
Emphasis in plant physiology
Universidad Industrial de Santander. Bucaramanga, Colombia
Research subject: Phenotypic plasticity of *Lippia alba* and *Lippia organoides*: response to nitrogen availability

Professional experience

- 02/2020 to date **Postdoctoral Researcher**
Entomology Department
University of California Riverside
Riverside CA, United States
- 02/2018 to 11/2019 **Assistant Professor**
Faculty of Sciences
Department of Exact, Natural and Agricultural Sciences
Universidad de Santander
Bucaramanga, Colombia
Undergraduate course: Biosciences (theoretical and practical course)

- 10/2017 – 06/2018 **Research Assistant**
Universidad Industrial de Santander
Bucaramanga, Colombia
School of Industrial Engineering and Biology
Research subject: Viability of solar panels and horticultural crops in green roofs
- 09/2017 – 12/2017 **Assistant Professor**
Faculty of Sciences
Universidad Industrial de Santander
Bucaramanga, Colombia
Undergraduate course: Laboratory of plant physiology
- 03/2013 – 06/2013 **Assistant Professor**
Faculty of Sciences
Universidad de los Llanos
Villavicencio, Colombia
Undergraduate course: Microbiology
- 05/2012 – 11/2012 **Research Assistant**
Department of Biological Sciences
Universidad de los Andes
Bogotá, Colombia
Plant disease diagnostician
Supervisor: Dr. Silvia Restrepo
- 02/2012 – 04/2012 **Research Assistant**
Department of Biological Sciences
Universidad de los Andes
Bogotá, Colombia
Diagnostics of Carnation diseases
Supervisor: Dr Silvia Restrepo
- 04/2011 – 03/2014 **Research Assistant**
Department of Biological Sciences
Universidad de los Andes
Bogotá, Colombia
Kinetic modeling of the pathway synthesis of L-glutamate during the compatible interaction between *Phytophthora infestans* and *Solanum tuberosum*.
Global gene expression of *Fusarium solani* and *Fusarium oxysporum* in the response to antifungal compounds.
Supervisor: Dr Silvia Restrepo.
- 01/2010 – 01/2011 **Teaching Assistant**
Department of Biological Sciences
Universidad de los Andes
Bogotá, Colombia

Undergraduate courses:
Laboratory of Plant pathology, Cellular biology tutorials
Supervisor: Dr Silvia Restrepo

03/2008 -11/2008 **Adjunct Professor**
Unidades Tecnológicas de Santander
Bucaramanga, Colombia
Undergraduate courses: Microbiology and Biotechnology

Publications

- Antolínez C.A.**, Monyeur T, Martini X, Rivera M. 2021. High temperatures decrease the flight capacity of *Diahorina citri*. *Insects* (in press).
- Antolínez C.A.**, Moreno A, Ontiveros I, Pla S., Sjölund J., Sumner J., Ouvrard D., Fereres A. 2019. Seasonal abundance of psyllid species associated to carrot and potato fields in Spain. *Insects* 10(9), 287. doi.org/10.3390/insects10090287.
- Antolínez C.A.**, Fereres A., Moreno A. 2017. Risk assessment of ‘*Candidatus Liberibacter solanacearum*’ transmission by the psyllids *Bactericera trigonica* and *B. tremblayi* from Apiaceae crops to potato. *Scientific Reports* 7, DOI: 10.1038/srep45534.
- Antolínez C.A.**, Moreno A., Appezzatto-da-Gloria B., Fereres A. 2017. Characterization of the electrical penetration graphs of the psyllid *Bactericera trigonica* on carrots. *Entomologia Experimentalis et Applicata* 163(2): 127-139. DOI: 10.1111/eea.12565.
- Antolínez C.A.**, Fereres A., Moreno A. 2017. Sex Specific feeding behaviour of the carrot psyllid *Bactericera trigonica* and its implication in the transmission of ‘*Candidatus Liberibacter solanacearum*. *European Journal of Plant Pathology*. 147: 627. doi:10.1007/s10658-016-1031-6.
- Danies G., **Antolínez C.A.**, Cantillo J., Peña G., Vargas A.M., Cardenas M., Bernal A., Fry W.E., Restrepo S. 2014. *Physalis peruviana* responses to *Phytophthora infestans* are typical of an incompatible interaction. *Canadian Journal of Plant Pathology* 37(1) dx.doi.org/10.1080/07060661.2014.975157.
- Antolínez C.A.**, & Rodríguez-Lopez NF, 2008. Phenotypic plasticity in plants of *Lippia alba* y *Lippia organoides* (VERBENACEAE): response to nitrogen availability. *Acta Biológica Colombiana*. 2008; 13:(1) 53-64.

Fellowships

09/2013 – 06/2017 Departamento Administrativo de Ciencia, Tecnología e Innovación (COLCIENCIAS)
Pre-doctoral scholarship to study abroad

Internships

03/2015 – 06/2015 Laboratory of Plant Anatomy
Escola Superior Luiz de Queiroz, University of Sao Paulo.
Piraciba, Brazil.

Histology and microscopy of plant and insect interactions
Supervisor: Dr. Beatriz Apezato da Gloria

08/2016 – 08/2016 Science and Advice for Scottish Agriculture (SASA)
Edinburgh, Scotland

Molecular Identification of insect vectors of plant diseases
Supervisor: Dr. Jennifer Sjolund

Core competences

Molecular biology and microbiology skills	Plant, fungi, animal and bacteria DNA and RNA preparation Bacterial and fungi conservation and culture Media and buffer preparation Primer design Plant inoculation with bacteria and virus Molecular biology techniques including PRC, qPCR, RT-PCR, ELISA
Entomology and plant pathology skills	Expertise in the analysis of vector feeding behaviour throughout the use of the Electrical Penetration Graph EPG technique Experience rearing insect colonies of different vectors of plant pathogens such as aphids, whiteflies, psyllids and leafhoppers. Morphological and molecular classification of hemipteran insects Knowledge of field techniques to estimate population dynamics of insects. Transmission tests to evaluate vector capacity Greenhouse tests to evaluate insect host preference In vitro tests to evaluate insect resistance to chemical compounds
Software skills	Basic knowledge of bioinformatics tools for analysing DNA sequences Familiar with several programs for data analysis. Knowledge of software to analyse feeding behaviour of hemipteran insects
Languages	Spanish (native) English (oral and written) Portuguese (elementary)

References

Dr. Jennifer Sjolund
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International Foundation for Science
SE 11526 Stockholm, Sweden
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Dr. Alberto Fereres Castiel
Professor. Leader of the Insect Vectors of Plant Pathogens Lab
Instituto de Ciencias Agrarias

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Dr. Silvia Restrepo
Professor. Department of Biological Sciences
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