Teddy Garcia-Aroca, Ph.D.
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EDUCATION

2017- 2021: Ph.D. in Plant Pathology. Department of Plant Pathology & Crop Physiology, Louisiana State University, Baton Rouge, Louisiana, USA. Co-advisors: Drs. Vinson P. Doyle and Paul "Trey" Price. GPA: 3.7.

2014-2016: M.S. in Plant Pathology. Department of Plant Pathology & Crop Physiology, Louisiana State University, Baton Rouge, Louisiana, USA. Major Professor: Raymond Schneider. GPA: 3.5.

2010-2011: Erasmus Mundus (Undergraduate Exchange Program), School of Pharmacy, *Universidad del Pais Vasco* (UPV/EHU), Vitoria-Gasteiz, Spain. GPA: 3.5.

2008-2012: B.S. in Agronomy. *Universidad Nacional de Agricultura (UNAG)*, Catacamas, Olancho, Honduras. GPA: 3.1.

RESEARCH EMPLOYMENT & INTERNSHIPS

August 2022 – present: Assistant Professor in quantitative fungal ecology. Department of Plant Pathology, University of Nebraska-Lincoln, Lincoln, NE, USA.

Responsibilities: Building a research program aimed to better understand the ecology of important plant pathogens in the state of Nebraska and in the northern hemisphere. Advising undergraduate and graduate students, and postdocs. Serving in graduate committees. Writing local and federal grants. Teaching three courses in plant pathology and fungal ecology. Serving in local, national, and international research committees and institutions for development of collaborative research environments.

2022 (Jan–August): Postdoctoral Research Associate. Department of Biological Sciences, University at Albany, State University of New York, Albany, New York, USA. PI: Dr. Cheryl P. Andam.

Responsibilities: Elucidating patterns of evolution, diversity, ecology, and incidence of human, animal, and plant bacterial pathogens, including *Staphylococcus aureus* and *Streptomyces* spp. from bat caves. From sampling and handling of isolates to sequencing and analyzing genomes using state-of-the-art bioinformatic tools to address questions about the evolution, main lineages, recombination, selection, and correlations with the associated metadata. Mentoring undergraduate and graduate students. Organizing and

judging student research competitions. Teaching bioinformatics to graduate and undergraduate students.

2017 – 2021: Graduate Assistant, Department of Plant Pathology & Crop Physiology, Louisiana State University, Baton Rouge, Louisiana, USA. Dissertation: "Taproot decline of soybean in the southern United States: Origin, evolution, and etiology of an emerging disease". Co-PIs: Drs. Vinson P. Doyle and Paul "Trey" Price.

Responsibilities: Carrying out and communicating research associated with an emerging disease of soybean, taproot decline (TRD), which led to the description of the novel pathogen *Xylaria necrophora*. Reporting emerging fungal pathogens, such as *Curvularia lunata,* in the United States. Building and maintaining a collection of fungal isolates and its associated metadata. Sequencing and analyzing over 300 fungal specimens for population genetics studies. Extracting secondary metabolites and testing in greenhouse and *in vitro* experiments. Mentoring undergraduate and graduate students, which led to two honors theses related to the development of a quantitative real-time PCR (qPCR) assay for *X. necrophora* written by undergraduate students and many contributions with graduate students.

2014 – 2016: Graduate Assistant. Department of Plant Pathology & Crop Physiology, Louisiana State University, Baton Rouge, Louisiana, USA. Thesis: "Effects of glyphosate on soybean nutrition, endophytic colonization by *Cercospora* cf. *flagellaris*, and severity of Cercospora leaf blight". PI: Dr. Raymond Schneider.

Responsibilities: Designing, planning, and executing field and laboratory experiments to assess the indirect effects of glyphosate on plant nutrition, disease incidence and severity, and pathogen biomass (using quantitative PCR). Assisting fellow lab mates in field and lab experiments. Training and mentoring of undergraduate students.

2013 (June–Dec): Visiting Scholar/Scientist. Department of Plant Pathology & Crop Physiology, Louisiana State University, Baton Rouge, Louisiana, USA. Research: "Developing a real-time PCR protocol for detection of *Cercospora* cf. *flagellaris*" and "testing fungigice resistance among *C.* cf. *flagellaris* isolates collected across Louisiana". PI: Dr. Raymond Schneider.

Responsibilities: Collecting and processing plant samples for DNA extraction and real-time PCR targeting *C.* cf. *flagellaris*. Assisting in laboratory protocols and maintenance.

2012 (June–Sept): Visiting Scholar/Undergraduate researcher. College of Agricultural and Environmental Sciences (CAES) University of Georgia (UGA), Griffin, Georgia, USA. Thesis: "Using six fungicides to develop a baseline of sensitivity for *Sclerotinia homoecarpa*, causal pathogen of 'dollar spot' on seashore *Paspalum* spp.". Advisor: Dr. Alfredo Martinez.

Responsibilities: Applying fungicide treatments, rating plots, collecting samples, and obtaining isolates for *in vitro* testing.

PUBLICATIONS & PEER-REVIEWED ARTICLES

Garcia-Aroca, T; Price, P.P; Richards, J.K; Andam, C.P; and Doyle, V.P. 2022. Emergence of mostly clonal lineages of *Xylaria necrophora* from the forest into agricultural systems in the southern United States. In preparation. Phytopathology. Expected submission date: 11/20/2022.

Garcia-Aroca, T. and Andam, C.P. 2022. Signals of selection and homologous recombination in the core genomes of four antibiotic-producing *Streptomyces* species. In Preparation. mSphere. Expected submission date: September 15th, 2022.

Garcia-Aroca, **T;** Souza, S.S.R; Ikhimiukor, O; Marcovici, M; Smith, J.T; Amador, S; McGonagle, C.J; Nye, G; Needle, D.B; Gibson, R; and Andam, C.P. 2022. Genome sequencing of methicillin-resistant and methicillin-susceptible *Mammaliicoccus sciuri* from diseased animals. Microbiology Resource Announcements. Submitted 07/14/2022.

Garcia-Aroca, T; Price, P.P; Solórzano, J; Galo, D; Sheffield, S.B; Doyle, V.P. 2022. Secondary metabolites produced by *Xylaria necrophora* are responsible for foliar symptoms associated with taproot decline of soybean. Plant Health Progress. In Press. https://doi.org/10.1094/PHP-03-22-0021-RS

Doyle, V.P; **Garcia-Aroca, T;** Price, P.P; Solórzano, J. 2022. Building a framework for managing an emerging fungal disease of soybean. Louisiana Agriculture Magazine, Winter 2022.

Solórzano, J; Kartika, R; Donnarumma, F; Ganiu, M.O; **Garcia-Aroca, T**; Doyle, V.P. 2022. *Xylaria necrophora*, the causal pathogen of taproot decline of soybean, produces both phytotoxic and antimicrobial secondary metabolites. In preparation. Journal of Agricultural and Food Chemistry. Expected submission 10/2022.

Garcia-Aroca, T; Price, P.P.; Doyle, V.P. 2021. Taproot Decline of Soybean — *Xylaria necrophora*. 2021. Louisiana Plant Pathology Disease Identification and Management Series. LSU – AgCenter. PUB3802.

Garcia-Aroca, T; Price, Paul P; Tomaso-Peterson, Maria; Allen, Tom W; Wilkerson, Tessie H; Spurlock, Terry N; Faske, Travis R; Bluhm, Burt; Conner, Kassie; Sikora, Edward; Guyer, Rachel; Kelly, Heather; Squiers, Brooklyn M; Doyle, Vinson P. 2021. *Xylaria necrophora*, sp. nov., is an emerging root-associated pathogen responsible for taproot decline of soybean in the southern United States. Mycologia 113(2):326-347. https://doi.org/10.1080/00275514.2020.1846965

Garcia-Aroca, T; Doyle, V; Singh, R; Price, T; Collins, K. 2018. First Report of Curvularia leaf spot of Corn, caused by *Curvularia lunata*, in the United States. Plant Health Progress 19(2): 140-142. https://doi.org/10.1094/PHP-02-18-0008-BR.

Guyer R; Pate S; **Garcia-Aroca T**; Doyle VP; Price T; Kelly HM. 2020. First report of taproot decline caused by *Xylaria* sp. on soybean in Tennessee. Plant Disease. PDIS-05-20-0947-PDN. https://doi.org/10.1094/PDIS-05-20-0947-PDN.

ABSTRACTS

Garcia-Aroca, T; Price, T; Richards, J.K; Andam, C.P; Doyle, V.P. 2022. Two mostly-clonal lineages of *Xylaria necrophora*, an emerging pathogen of soybean, are found in the southern United States with signatures of past sexual recombination. (Abs). American Society for Microbiology annual meeting, Washington DC.

Garcia-Aroca, T; Price, P.P; Solórzano, J; Galo, D; Sheffield, S; Richards, J. K; Doyle, V.P. 2021. Systemic secondary metabolites produced by *Xylaria necrophora* are responsible for the foliar symptoms associated with taproot decline of soybean. (Abs). Southern Soybean Disease Workers (SSDW) annual meeting, virtual format, 03/2021.

Garcia-Aroca, T; Price, P.P; Solórzano, J; Galo, D; Sheffield, S; Doyle, V.P. 2021. Foliar symptoms of taproot decline are caused by systemic secondary metabolites produced by *Xylaria necrophora.* (Abs). Phytopathology 111:S1.1. https://doi.org/10.1094/PHYTO-111-9-S1.1

Garcia-Aroca, T; Price,P; Tomaso-Peterson, M; Wilkerson, T; Spurlock, T.N; Faske, T.R; Bluhm, B.H; Conner, K.N; Sikora, E.J; Guyer, R; Kelly, H.M; Allen, T; Doyle, V.P. 2020. Taproot decline of soybean is caused by a novel *Xylaria* sp. That produces phytotoxins associated with foliar symptoms. (Abs). Phytopathology 110:S1.1. https://doi.org/10.1094/PHYTO-110-7-S1.1.

Garcia-Aroca, T; Price,P; Tomaso-Peterson, M; Wilkerson, T; Spurlock, T.N; Faske, T.R; Conner, K.N; Sikora, E.J; Guyer, R; Kelly, H.M; Allen, T; Doyle, V.P. 2019. A Novel *Xylaria* sp. Is Capable of Infecting Soybean Roots and Producing Systemic Secondary Metabolites Responsible for Foliar Symptoms. (Abs). Mycological Society of America, annual meeting. MON 31. https://msafungi.org/wp-content/uploads/2019/08/2019-MSA-Meeting-Abstracts-with-Presenting-Author-Index.pdf.

Guyer, R; Pate, S; **Garcia, T.G**; Doyle, V.P; Price, P; Kelly, HM. 2018. Investigation of new soil borne pathogen on soybean (*Glycine max*) in Tennessee. (Abs). Phytopathology. 108:S1.192. https://doi.org/10.1094/PHYTO-108-10-S1.1.

Garcia-Aroca, T; Price, P; Tomaso-Peterson, M: Spurlock, T; Faske, T; Bluhm, B; Conner, K; Sikora, E; Guyer, R; Kelly, H; Allen, T; Doyle, V.P. 2018. A novel lineage of *Xylaria* is responsible for taproot decline of soybean in the southern United States. (Abs). *11th International Mycological Congress*, San Juan, Puerto Rico.

Garcia-Aroca, T; Price, P; Tomaso-Peterson, M: Spurlock, T; Faske, T; Bluhm, B; Conner, K; Sikora, E; Guyer, R; Kelly, H; Allen, T; Doyle, V.P. 2018. Taproot Decline of Soybean is

Caused by an Undescribed Species in the Genus *Xylaria*. (Abs). *Proceedings of the 45th Annual Meeting of the Southern Soybean Disease Workers (SSDW)*, p. 16.

Garcia, TG; Robertson, C.L; Tubana, E; Ward, B.M; Silva, E.C; Price, P.P; Levy, R; Schneider, R.W. 2017. Effects of Glyphosate on Soybean Nutrition, Endophytic Colonization by *Cercospora* cf. *flagellaris* and Development of Cercospora Leaf Blight. (Abs). Phytopathology 107:S3.1. http://dx.doi.org/10.1094/PHYTO-107-4-S3.1.

Garcia, TG; Silva, E.C; Ward, B.M; Robertson, C.L; Price, P; Schneider, R.W; Levy, R. 2016. Correlating the Effects of Glyphosate on Soybean Nutrition with Cercospora Leaf Blight and Septoria Brown Spot Severity. (Abs). Phytopathology 106:S4.1. https://doi.org/10.1094/PHYTO-106-12-S4.1.

Silva, E; **Garcia, T**; Chanda, A; Robertson, C; Lygin, A; Ward, B; and Schneider, R. 2016. Two symptoms of Cercospora leaf blight of soybean: An indication of two diseases caused by the same pathogen. (Abs). Phytopathology 106:S2.6. http://dx.doi.org/10.1094/PHYTO-106-4-S2.6

Garcia, TG; Silva, E.C; Ward, B.M; Robertson, C.L; Levy, R; and Schneider, R.W. 2015. Glyphosate Affects Cercospora Leaf Blight and Brown Spot of Soybean. (Abs). Southern Soybean Disease Workers (SSDW) 42nd annual meeting, Pensacola, FL. http://www.ssdw.net/images/2015.pdf

Ward, B.M; Robertson, C.L; Silva, E.C; **Garcia, T.G**; and Schneider, R.W. 2015. Minor Element Application as a Management Strategy for Soybean Rust and Cercospora Leaf Blight. (Abs). Southern Soybean Disease Workers (SSDW) 42nd annual meeting, Pensacola, FL. http://www.ssdw.net/images/2015.pdf

Chagas Ferreira Da Silva, E; **Garcia, T.G**; Lygin, A; Chanda, A.K; Robertson, C.L;· Ward, B.M; Schneider, R.W. 2015. Fungal colonization and cercosporin and flavonoid concentrations for two different symptoms of Cercospora leaf blight in soybean. (Abs). Phytopathology 105(Suppl. 2):S2.1. http://dx.doi.org/10.1094/PHYTO-105-4-S2.1

Silva, E.C.; **Garcia**, **T.G;** Lygin, A.V; Chanda, A.K; Robertson, C.L; Ward, B.M; Schneider, R.W. 2015. A New Perspective on Cercospora Leaf Blight Symptoms on Soybean. (Abs). Southern Soybean Disease Workers (SSDW) 42nd annual meeting, Pensacola, FL.

Ward, B.M; Robertson, C.L; Schneider, R.W; Chagas Ferreira da Silva, E; **Garcia, T.G**. 2015. Foliar applications of minor elements suppress Cercospora leaf blight and rust in soybeans. (Abs). Phytopathology 105(Suppl. 2):S2.1. http://dx.doi.org/10.1094/PHYTO-105-4-S2.1

Chagas Silva, E; Chanda, A.K;·Schneider, R..W;·**Garcia Aroca, TG**;·Robertson, C.L;·Tubana, E.B.S; Ward, B.M. 2014. Influence of iron on soybean leaf infection by *Cercospora kikuchii* and symptom expression. (Abs) Phytopathology 104(Suppl. 2):S2.1. http://dx.doi.org/10.1094/PHYTO-104-5-S2.1

AWARDS & GRANTS

2021: C.W. Edgerton Honor Award, Department of Plant Pathology & Crop Physiology ($500).

2021: Grant – Ogden Honors College for Sophie B. Sheffield thesis proposal. Title: "The development and validation of a molecular diagnostic assay for an emerging pathogen of soybean." (U$D 750).

2021: 1st place student research competition, Southern Soybean Disease Workers (SSDW) annual meeting (U$D 500).

2019: Ray & Dorothy Young Endowed Assistantship in Integrated Pest Management (U$D 10,000).

2019: Mycological Society of America (MSA) Edward E. Butler Mentor-mentee Student Travel Award (U$D 750).

2018: Dr. Weston J. Martin Fellowship award, LSU Department of Plant Pathology & Crop Physiology (U$D 500).

2018: 1st Place at LSU PPCP GSA student research competition. Presentation title: "A novel lineage of *Xylaria* is responsible for taproot decline of soybean in southern USA" (U$D 500).

2018: 2nd Place at graduate student research competition at MAWFGS (Mid-South Association of Wheat and Feed Grain Scientists). Presentation title: "Curvularia leaf spot of corn, a newly found disease in the United States" (U$D 200).

2018: 2nd Place at student paper competition, Southern Soybean Disease Workers (SSDW), Pensacola Beach, FL. Presentation title: "Taproot decline of soybean is caused by an undescribed species in the genus *Xylaria*" (U$D 500).

2017: 1st abstract submission award. American Phytopathological Society Southern Division (APS-SD) annual meeting, College Station, TX.

2016: Grant – LINKS with Industry & National Labs (LINK)- Louisiana Board of Regents. Travel to academic and industrial institutions in Argentina & Brazil (U$D 6,000).

2012: Undergraduate research assistantship by UNAG and UGA (U$D 3,000).

2010: Erasmus Mundus scholarship (€ 13,000).

PROFESSIONAL MEETINGS/CONFERENCES

2022:

- American Society for Microbiology 2022 annual meeting, Washington DC.
- First Symposium of UNAG Alumni in the US, Baton Rouge, LA
- Judge for the New York State Science and Engineering Fair (NYSSEF), NY, NY.
- Judge for the RNA Institute 2022 symposium, Albany, NY.
- Judge for the University at Albany Life Sciences Research Symposium (LSRS), Albany. NY.

2021:

- Panelist for the LSU ASPIRE Symposium.
- American Phytopathological Society Southern Division (APS-SD) annual meeting, virtual format.
- Southern Soybean Disease Workers (SSDW) annual meeting, virtual format.

2020:

- Mycological Society of America (MSA) annual meeting (online).
- American Phytopathological Society annual meeting (online).
- American Phytopathological Society Southern Division (APS-SD) annual meeting, Charleston, SC.

2019: Mycological Society of America (MSA) annual meeting, Minneapolis, MN.

2018:

- International Mycological Congress (IMC11), San Juan, Puerto Rico.
- Southern Soybean Disease Workers (SSDW) and NCERA-137, Pensacola, FL.
- Mid-South Association of Wheat and Feed Grain Scientists (MAWFGS), Huntsville, AL.

2017: American Phytopathological Society Southern Division (APS-SD) annual meeting, College Station, TX.

2016: American Phytopathological Society (APS) annual meeting, Tampa, FL.

2013: American Phytopathological Society (APS) annual meeting, Austin, TX.

PRESENTATIONS & SEMINARS

June 2022: Oral presentation. Title: "Two mostly-clonal lineages of *Xylaria necrophora,* an emerging pathogen of soybean, are found in the southern United States with signatures of past sexual recombination". ASM Microbe 2022, Washington DC.

March 2022: Oral presentation: Title: "*Xylaria necrophora*, an emerging pathogen of soybean, came from the forest and two mostly-clonal lineages are found in the southern USA". First Symposium of UNAG Alumni in the US. Baton Rouge, LA.

September 2021: Exit seminar. Title: "Taproot decline of soybean in the southern United States: origin, evolution, and etiology of an emerging disease". Department of Plant Pathology & Crop Physiology, Louisiana State University, Baton Rouge, LA 70803.

March 2021: Oral presentation. Title: "Systemic secondary metabolites produced by *Xylaria necrophora* are responsible for the foliar symptoms associated with taproot decline of soybean". Southern Soybean Disease Workers (SSDW) annual meeting. Virtual format.

February 2021: Oral presentation. Title: "Foliar symptoms of taproot decline are caused by systemic secondary metabolites produced by *Xylaria necrophora*". 98th Southern Division American Phytopathological Society (SD-APS) annual meeting. Virtual format.

April 2020: Oral presentation. Title: "Emerging diseases in the age of genomics: using big data to 'solve' big problems". Seminar at the Department of Plant Pathology & Crop Physiology, LSU.

February 2020: Oral presentation. Title: "Taproot Decline of Soybean is caused by a novel species of *Xylaria* that produces systemic secondary metabolites responsible for foliar symptoms". 97th Southern Division American Phytopathological Society (SD-APS) annual meeting, Charleston, SC, Charleston, SC.

2019: Oral presentation. Title: "A novel lineage of *Xylaria* is responsible for taproot decline of soybean in the southern United States". Mycological Society of America (MSA) annual meeting, Minneapolis, MN.

2018: Oral presentation. Title: "Curvularia leaf spot of corn, a newly found disease in the United States". Student paper competition at Mid-South Association of Wheat and Feed Grain Scientists (MAWFGS), Madison, Alabama.

2018: Poster presentation. Title: "A novel lineage of *Xylaria* is responsible for taproot decline of soybean in the southern United States". 11th International Mycological Congress, San Juan, Puerto Rico.

2018: Oral presentation. Title: "Taproot decline of soybean is caused by an undescribed species in the genus *Xylaria*". Southern Soybean Disease Workers (SSDW) annual meeting, Pensacola, FL

2018: Oral presentation. Title: "Taproot decline update: new species of *Xylaria*?". Invited talk at the Soybean Diseases Technical Committee Meeting (NCERA-137), Pensacola Beach, FL.

2016: Oral presentation. Title: "Glyphosate affects Cercospora leaf blight and brown spot of soybean". Federal University of Uberlandia and Federal University of Vicosa, Brazil.

2016: Oral presentation. Title: "Research on soybean diseases in the Schneider laboratory". Estación Experimental Agroindustrial Obispo Colombres (EEAOC), Tucuman, Argentina.

TEACHING & WORKSHOPS

2022: Team-leader in the Summer Bioinformatics Fellowship organized by the RNA Institute at University at Albany.

2021: "Genomic approaches to plant pathology: bioinformatics as a powerful tool", organized by Teddy Garcia-Aroca and Hope Becton, APS-SD GSR for the 2021 annual meeting.

2021: "Talk to an expert", organized by Teddy Garcia-Aroca and Hope Becton, APS-SD GSR, and Dr. Rebecca Melanson, for the 2021 annual meeting.

2020: Bioinformatics workshop for the LSU PPCP-GSA Journal Club titled: "Clade- and species-specific internal primer design with the DECIPHER package on RStudio" by Teddy Garcia-Aroca.

2019: Summer Technique Sharing Workshops – Title: "Phylogenetics 101 – methods to perform phylogenetic analyses from raw data to phylo-trees" by Teddy Garcia-Aroca.

2018: Summer Technique Sharing Workshops – Title: "Introduction to R and R-studio for statistical analyses" by Teddy Garcia-Aroca.

2017: 2b-RAD for genotyping by sequencing. Workshop organized by Oregon State University, Catalina Island, CA.

2017: Summer Technique Sharing Workshops: "Development of qPCR assays and protocols" by Teddy Garcia-Aroca.

LEADERSHIP ROLES

2021: LSU College of Agriculture Diversity and Inclusion Champion, Department of Plant Pathology & Crop Physiology, Louisiana State University.

2020-2022: Founding member of UNAG Alumni Association in the US (UAA-US). Role in executive committee: website administrator and board member.

Accomplishments: Creating and maintaining the organization website (https://www.uaa-us.org). Organizing the first symposium of UAA-US in Baton Rouge, LA (March 2022).

2021: Vice-President (and Interim President) of "UNAs at LSU", a student organization focused on helping former UNAG students attending LSU.

Accomplishments: Organized the first mentorship program. Helped secure funding for six summer internships for UNAG students.

2019-2021: American Phytopathological Society Southern Division (APS-SD) graduate student representative (GSR).

2019-2020: PPCP-GSA chair of the "Website Committee". Duties: keeping the PPCP-GSA website up-to-date and releasing information to social media.

2019: Founding member UNAs at LSU. Major role writing the constitution of this student organization.

2018-2019: President of the Plant Pathology & Crop Physiology Graduate Student Association (PPCP GSA).

Accomplishments: Registered the GSA to the LSU campus for the first time in its history, becoming an official LSU organization, allowing the GSA to participate in all on-campus activities. Organized LSU greening day and stadium cleanups.

MENTORING & TEACHING

2022:

Graduate students:

- Teresa Hnin, Ph.D. student in the Department of Biological Sciences at University at Albany. Concentration in Molecular, Cellular, Developmental, and Neural Sciences. Research: "Detection and characterization of effector and antibiotic resistance genes in bacterial species found in human oral cavities".

- Gabrielle Roosevelt, Ph.D. student in the Department of Biological Sciences at University at Albany. Research: "Global distribution of five *Escherichia coli* pandemic lineages causing urinary tract infections".

Undergraduate students:

- Marven Belus, Farwah Narjis, Lucas Hooker, and Sydney Robertson. Research: "Incidence of infectious bacterial species, such as *Staphylococcus aureus* in shared public spaces".

2021: Tess Brown, intern from Southern University. Undergraduate research: "Colonization of soybean tissue by CLL 5110, a 'saprophytic' *Xylaria necrophora*".

2021: Cristofer Martinez, Carla Guardado, and Faustino Puerto, undergraduate students from UNAG, Honduras. UNAs at LSU mentorship program.

2020-2021: Sophie B. Sheffield. Undergraduate research: "Developing a sensitive assay for the detection of the taproot decline of soybean pathogen, *Xylaria necrophora*, and its closely related species".

2018-2021: Brooklyn M. Squiers. Undergraduate research and honors thesis: "Designing and evaluating the utility of novel primers for the detection of an emerging fungal disease of soybean".

2019-2021: Kensy Rodríguez. M.S. research. Phylogenetics of *Rhizoctonia solani* AG1.

2018-2021: David Galo. M.S. research on fungal diversity and pathogenicity on *Phragmites americanus* and *P. australis*

2018-2021: José Solórzano. M.S. research: Description of the specific molecules found as secondary metabolites associated with the pathogenicity of *Xylaria necrophora*

Fall 2018: Teaching assistant, Introductory Mycology. Instructor: Dr. Vinson P. Doyle.

Spring 2018: LSU Agcenter – AgMagic. Teaching elementary school students about plant pathogens.

Spring 2018: Sara Berrezueta. Undegraduate student, Zamorano University, Honduras-LSU. Visiting scholar in the Doyle Mycology Lab working with early extractions of secondary metabolites from *Xylaria necrophora.*

2014-2016: Elaisa Tubana, Emily Rolfes, and Justin King. Undergraduate researchers assisting in my research on the effects of glyphosate on soybean nutrition and disease development.

FEATURED PRESS ARTICLES

2021: "LSU student identifies, names new fungus species" by Bruce Shultz. LSU – AgCenter.

2020: "Taproot Decline of Soybean: Bridging the Gap Between Applied and Fundamental Research". Louisiana Agricultural Consultants Association Turn Row Talk Spring Volume 29.

2018: "Understanding of soybean taproot decline disease evolving" by Kyle Peveto, Tobie M. Blanchard, and Frances Gould. LSU AgCenter.

PUBLIC REPOSITORIES

GitHub: https://github.com/teddyaroca/Summer_2022_bioinformatics
https://github.com/bioted/X.necrophora.secondaryMetabolites
https://github.com/vinsondoyle/GarciaArocaMycologia2020

CURRENT AND PAST COLLABORATORS

Cheryl P. Andam, State University of New York at Albany – Postdoctoral advisor.

Alex Valm, State University of New York at Albany.

Vinson P. Doyle, Louisiana State University.

Trey Price, Louisiana State University.

Jonathan Richards, Louisiana State University.

Rag Singh, Louisiana State University.

Yu-Ming Ju, Academia Sinica, Taiwan.

Maria Tomaso-Peterson, Mississippi State University.

Tom W. Allen, Mississippi State University.

Tessie H. Wilkerson, Mississippi State University.

Rebecca Melanson, Mississippi State University.

Terry N. Spurlock, University of Arkansas.

Travis R. Faske, University of Arkansas.

Mandy Tolbert, University of Arkansas.

Burt Bluhm, University of Arkansas.

Kassie Conner, Auburn University.

Edward Sikora, Auburn University.

Rudy Yates, Extension/county agent.

Rachel Guyer, Student/Researcher at University of Tennessee.

Shelly N. Pate, Student/Researcher at University of Tennessee.

Heather Kelly, University of Tennessee.