Nichole A Ginnan

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Education

09/2014 – 06/2020 **Ph.D., Plant Pathology**
University of California, Riverside, Dept. of Microbiology and Plant Pathology
Advisor: Dr. Caroline Roper

09/2010 – 12/2012 **B.S., Biology**
Long Island University – Post Campus, Dept. of Biology
Advisor: Dr. Kent Hatch

Research Experience

09/2020 – present **Postdoctoral Scholar, University of Kansas;** Lawrence, KS
PI: Dr. Maggie Wagner, Dept. of Ecology and Evolutionary Biology
Investigating microbial adaptations to drought in both soil and plant associated communities.

06/2020 – 09/2020 **Interim Postdoctoral Scholar, University of California**; Riverside, CA
PI: Dr. Caroline Roper, Dept. of Microbiology and Plant Pathology
Studied Citrus tree associated microbial communities in the context of disease and plant phenology.

07/2014 – 06/2020 **Graduate Student Researcher, University of California;** Riverside, CA
PI: Dr. Caroline Roper, Dept. of Microbiology and Plant Pathology
Studied Citrus tree associated microbial communities in the context of disease and plant phenology. Additionally research included, inter-microbiome interactions, microbial natural products, and nanoparticle application in tree crops.

01/2012 – 07/2014 **Undergraduate Research Assistant, Long Island University**; Brookville, NY
PI: Dr. Kent Hatch, Dept. of Biology
Investigated the effects of a common ecological marking technique on the health of amphibians.

Fellowships

2019 – 2020 **University of California President's Dissertation Year Fellowship**
UC Office of the President and UCR Graduate Division
$22,570 stipend + tuition and fees for 1 year

2016 – 2019 **National Science Foundation Graduate Research Fellowship (NSF GRFP)**
National Science Foundation
$172,000 including stipend, tuition, and fees for 3 years

2014 – 2019 **UCR Dean's Distinguished Fellowship**
University of California; Riverside, CA
$214,686 including stipend and tuition for 5 years, declined last 3 years of award

Publications

[+] denotes undergraduate mentee
* denotes co-first authorship

In Prep **Ginnan NA,** De Anda N[+], Roper MC. Development and utilization of an axenic citrus system to unravel competition-based niche selection within the microbiome. *In preparation.*

Ginnan NA, De Anda N[+], Rolshausen P, Roper MC. Microbial Community Structural and Ecological Functional Changes Associated with Plant Phenology. *In preparation.*

2020 **Ginnan NA,** Dang T**,** Bodaghi S, Ruegger P, McCollum G, England G, Vidalakis G, Borneman J, Rolshausen P, Roper MC (2020). Disease-induced microbial shifts in citrus indicate microbiome-derived responses to Huanglongbing across the disease severity spectrum. *Phytobiomes. In press.* DOI: PBIOMES-04-20-0027-R

Blacutt A, **Ginnan NA**, Dang T, Bodaghi S, Vidalakis G, Ruegger P, Peacock B, Viravathana P, Campos-Vieira F., Drozd, C, Jablonska B., Borneman J, McCollum G, Cordoza J, Meloch J, Berry V, Salazar L, Maloney K, Rolshausen P, Roper, MC. (2020). Development of an *in vitro* pipeline to screen and select citrus-associated microbiota with potential anti-*Candidatus* Liberibacter asiaticus properties. *Applied and Environmental Microbiology*. Vol. 86. Issue 8. DOI: 10.1128/AEM.02883-19

Su Y, Ashworth V, Geitner N, Wiesner M, **Ginnan NA**, Rolshausen P, Roper C, Jassby D. (2020). Delivery, Fate, and Transport of Silver Nanoparticles in Citrus Trees. *ACS Nano*. 14(3):2966-2981. DOI: 10.1021/acsnano.9b07733

2019 Pedroncelli L, Carter-House D, **Ginnan NA,** Andrews H, Drozd C, DiSalvo B. (2019). The Consequences of Drought on Plant Pathology. *Journal of Science Policy and Governance:* Vol. 15, Issue 1.

2018 **Ginnan NA*,** Dang T***,** Bodaghi S, Ruegger P, Peacock B, McCollum G, England G, Roper MC, Rolshausen P, Borneman J (2018) Bacterial and Fungal Next

Generation Sequencing Datasets and Metadata from Citrus Infected with *Candidatus* Liberibacter asiaticus. *Phytobiomes:* 2018 2:2, 64-70.

2014 **Ginnan, NA**, Lawrence, JR, Russell M, Eggett DL, and Hatch KA (2014) Toe Clipping Does Not Affect the Survival of Leopard Frogs (*Rana pipiens*). *Copeia:* Vol. 2014, No. 4, pp. 650-653.

Semi-technical and Outreach Publications

2018 Rolshausen P, Dang T, Bodaghi S, **Ginnan NA,** Ruegger P, Peacock B, Roper MC, Borneman J, McCollum G, Vidalakis G, England GK (2018) Correlating Citrus Tree Health with Microbes. *Citrograph:* 9:4, 52-56.

Grants and Awards

2020 **UCR CNAS Charles W. Coggins, Jr. Endowed Scholarship ($10,000)**
University of California, Riverside, College of Natural and Agricultural Sciences
For academic/research excellence and benefit to the agricultural industry.

2019 **Peter and Pamela Tsao Graduate Student Scholarship Award ($1,000)**
University of California, Riverside, Dept. of Microbiology and Plant Pathology
For excellence in soil-borne disease research.

2019 **Earle C. Anthony Travel Grant ($1,500)**
Graduate Division, University of California, Riverside
Awarded to top graduate students to present research at conferences.

2019 **Edmond C. Calavan Memorial Scholarship Award ($1,000)**
University of California, Riverside, Dept. of Microbiology and Plant Pathology
For research excellence in the field of plant pathology.

2018 **UCR CNAS Charles W. Coggins, Jr. Endowed Scholarship ($4,642)**
University of California, Riverside, College of Natural and Agricultural Sciences
For academic/research excellence and benefit to the agricultural industry.

2018 **APS William Moller Student Travel Award ($500)**
American Phytopathological Society
Award for travel expenses to the International Congress of Plant Pathology

2018 **APS Foundation Mathre Education Endowment Award ($1,000)**
American Phytopathological Society
Funding to organize a Plant Pathology outreach day for local youth.

2017 **EMBO Course Travel Grant (450 €)**

European Molecular Biology Organization
Funding to attend training program at Max Planck Institute in Cologne, Germany

2016 **Samuel Roberts Noble Foundation Poster Award**
APS annual meeting, Tampa, FL

2016 **Audience Choice Award – Best talk**
GradSlam, University of California, Riverside

2015 **Don and Judy Mathre Educational Award ($500)**
American Phytopathological Society
Award for travel expenses to visit a collaborative laboratory

2015-19 **GSA Conference Travel Grant ($300 - $600)**
University of California Riverside, Graduate Student Association

2015-19 **Klotz Memorial Travel Award ($500 - $750)**
University of California Riverside, Dept. of Microbiology and Plant Pathology

2013 **Frontier Award in Scientific Research**
Long Island University
For outstanding undergraduate research

Teaching and Mentoring

2019 **Recommendation Writer**
Provided Hannah Way with reference letter for NSF GRFP application

2018 **Panelist**
STEM Graduate student Panel, UC Riverside

2018 **Guest Lecturer**
Plant Virology and Bacteriology (PLPA 203), UC Riverside

2017 **Peer Mentor**
Graduate Success office of Graduate Division, UC Riverside

2017 **Outstanding Teaching Assistant Award**
Graduate Division, UC Riverside

2016 (Spring) **Teaching Assistant**
Introduction to Microbiology Laboratory (MCBL121L), UC Riverside

2016 **Volunteer**

STEM SISTERS (Middle School Outreach Program), UC Riverside

2015-16 **Minority Student Mentor**
Association for Women in Science, Mecca Program, UC Riverside

2012-13 **International Student Mentor**
Conversations Helping and Teaching Students (CHATS), Long Island University

Leadership

2017 – 2018 **Vice President of Academic Affairs**
UCR Graduate Student Association, Riverside, CA
Represented and advocated for >3,200 graduate students. Managed a team of 7 academic affairs officers. Oversaw the status, funding, and activity of 56 departmental graduate student organizations, an event/conference funding program, and an outreach funding program.

2015 – 2017 **Conference Travel Grant Coordinator**
UCR Graduate Student Association, Riverside, CA
Directed the conference travel grant program (budget ≈$250,000) by organizing, reviewing, and awarding hundreds of awards to individual students.

2015 – 2017 **Vice Chair**
UCR Highlander Union Board of Governors, Riverside, CA
Developed operational policies and approved budgets/programming.

2014 – 2017 **City Ambassador**
City of Riverside Mayor's Academic/College Forum, Riverside, CA
Collaborated with student leaders from all four regional colleges and the Mayor's office to improve relations between students and the city.

2014 – 2015 **Academic Affairs Officer**
UCR College of Natural and Agricultural Sciences, Riverside, CA
Served as a liaison between the College of Natural and Agricultural Sciences and the larger campus wide graduate student association.

Service and Membership

2019 **Grant Application Reviewer**, Travel Grants, American Phytopathological Society
2017 – 2018 **Graduate Student Representative,** UCR Dean of Students Search Committee
2016 – 2019 **Communications Coordinator**, UCR Plant Pathology GSA Outreach Committee
2015 – 2018 **Graduate Representative,** UCR Faculty Academic Senate's Graduate Council
2015 – **Member,** American Phytopathological Society
2014 – 2016 **Graduate Representative,** UC Global Food Initiative, Food Security Committee

2014 – 2015 **Graduate Representative,** UCR Faculty Academic Senate's Extension Committee
2014 – 2020 **Member,** UCR Plant Pathology Graduate Student Association

Presentations

2020 **Ginnan, Nichole.** (2020, May). Pathogens, Plant Phenology, and Microbial Competition Imoact the Structure and Function of the Citrus Microbiome. **Talk** presented at the University of California Davis MMI seminar in Davis, CA.

2019 **Ginnan, Nichole,** Dang, T., Ruegger, P., Borneman, J., Rolshausen, P., Vidalakis, G., Bodaghi, S., McCollum, G., Roper, M.C (2019, March). *Microbial Population Dynamics Across the Huanglongbing Disease Spectrum.* **Talk** presented UCR Microbiome Initiative Symposium in Riverside, CA.

Ginnan, Nichole, Rolshausen, P., Roper, M.C. (2019, July). *Microbial Community Dynamics Associated with Host Phenological Stages of Citrus sinensis.* **Poster** presented at the International Congress of Molecular Plant-Microbe Interactions (MPMI) in Glasgow, Scotland, United Kingdom.

Ginnan, Nichole, Dang, T., Ruegger, P., Borneman, J., Rolshausen, P., Vidalakis, G., Bodaghi, S., McCollum, G., Roper, M.C (2019, March). *Microbial Community Shifts Accosiated with Huanglongbing Severity.* **Talk** presented at International Research Conference on HLB (IRCHLB) in Riverside, CA.

Ginnan, Nichole, Rolshausen, P., and Roper, M. (2019, February). *Deciphering the role of the Citrus Microbiome in Host Phenology and Disease Development*. **Talk** presented at UCR Plant Pathology seminar, Riverside, CA.

2018 **Ginnan, Nichole**, Rolshausen, P., and Roper, M. (2018, June). *Deciphering the architecture of the citrus microbiome*. **Poster** presented at ICPP in Boston, MA.

Ginnan, Nichole, Rolshausen, P., and Roper, M. (2018, February). *Deciphering the architecture of citrus microbiota.* **Poster** presented at Citrus Day for Industry, Riverside, CA.

2017 **Ginnan, Nichole** and Roper, M. (March 2017). *Uncovering the functional roles of the citrus microbiome using a gnotobiotic plant system.* **Poster** presented at the European Molecular Biology Organization (EMBO) Plant Microbiota Practical Course at Max Planck Institute, Cologne, Germany.

Ginnan, Nichole, Dang, T., Ruegger, P., Borneman, J., Rolshausen, P., Vidalakis, G., Bodaghi, S., McCollum, G., Roper, M.C. (2017, February). *Uncovering the role of the citrus microbiome in a pathogen tolerant phenotype.* **Poster** presented at UCR Citrus Day for Industry, Riverside, CA

Ginnan, Nichole. (2017, February). *Why do Plants have Partnerships?: Uncovering the functional roles of the citrus microbiome using a gnotobiotic plant system.* **Talk** presented at the UCR Department of Plant Pathology Seminar,

Riverside, CA

2016 **Ginnan, Nichole**, Dang, T., Ruegger, P., Borneman, J., Rolshausen, P., Vidalakis, G., Bodaghi, S., McCollum, G., Roper, M.C. (2016, November). *Uncovering the role of the citrus microbiome in a pathogen tolerant phenotype*. **Poster** presented at Keystone Symposia: Phytobiomes: From Microbes to Plant Ecosystems, Santa Fe, NM

Ginnan, Nichole, Dang, T., Ruegger, P., Borneman, J., Rolshausen, P., Vidalakis, G., Bodaghi, S., Roper, M.C. (2016, August). *The Role of the Citrus Microbiome in Tree Health and Tolerance to Pathogens*. **Poster** presented at the American Phytopathological Society Annual Meeting, Tampa, FL

Ginnan, Nichole. (2016, April). *Microbiomes and Sustainable Agriculture*. **Talk** presented at the GradSlam Competition Finals, UC Riverside, Riverside, CA

Ginnan, Nichole. (2016, January). *Microbiomes and Plant Microbiota-Mediated Resistance*. **Talk** presented at the UCR Department of Plant Pathology Seminar, Riverside, CA

2015 **Ginnan, Nichole**, Dang, T., Ruegger, P., Borneman, J., Rolshausen, P., Vidalakis, G., Roper, M.C. (2015, August). *Unraveling the Citrus Phytobiome: Profiling endophytic microbes with potential to improve tolerance to plant disease*. **Poster** presented at the American Phytopathological Society Annual Meeting, Pasadena, CA

Ginnan, Nichole, Dang, T., Ruegger, P., Borneman, J., Rolshausen, P., Vidalakis, G., Roper, M.C. (2015, July). *Characterization of the citrus phytobiome: identifying endophytic microbiomes with potential to improve tolerance to plant disease.* **Poster** presented at Phytobiomes: New Paradigm for Crop Improvement, Washington, DC

Ginnan, Nichole (2015, April). *The Citrus Microbiome*. **Talk** in the GradSlam Competition, UC Riverside, Riverside, CA

2013 **Ginnan, Nichole** (2013, October) *How I benefited from undergraduate research and effects of biological marking techniques on amphibians*. **Talk** at the Long Island University Faculty Research Seminar, Brookville, NY

Ginnan, Nichole and Hatch, K. (2013, July). *The effects of toe-clipping on leopard frogs (Rana pipiens) and American toads (bufo americanus).* **Poster** presented at National Joint Meeting of Ichthyologist and Herpetologists, Albuquerque, NM

Ginnan, Nichole and Hatch, K. (2013, April). *The effects of toe-clipping on leopard frogs and American toads*. **Poster** presented at William Paterson University Scientific Research Symposium, Wayne, NJ

Ginnan, Nichole and Hatch, K. (2013, April). *The effects of toe-clipping on leopard frogs (Rana pipiens) and American toads (Bufo americanus).* **Poster**

presented at Long Island University Research Symposium, Brookville, NY

Professional Experience

02/2014 – 07/2014 **Client Representative**, Enzo Laboratories; Farmingdale, NY
Maintained connections with collaborative laboratories and physicians. Managed sample status, send-outs, and results.

09/2013 – 07/2014 **Pharmacy Technician**, Target Pharmacy; Hicksville, NY
Assisted with medical billing, prescription drop-off/pickup/filling, ordering/stocking of medications.

09/2010 – 12/2013 **Administrative Assistant,** LIU Post; Brookville, NY
Performed clerical duties in the Academic Affairs and Study Abroad offices. Participated in event planning, recruitment, and review of academic records.