

Application Form**Disclaimer**

Under Florida law, all information, including e-mail, written letters, documents and phone messages, sent to the Alachua County Board of County Commissioners are subject to Public Records law. This includes the sender's e-mail address, home address or phone number if shown in the message, the content of the message and any associated attachments to the mail. If you are exempt from aspects of the public records law pursuant to F.S. 119.071, contact the advisory board coordinator at 352-264-6906 prior to submission of this form.

Please Agree with the Following Statement

I have read the disclaimer above and understand my application is subject to Florida's Public Records Law.

☒ I Agree

Profile

James

First Name

C

Middle Initial

Fulton

Last Name

3508 SW 74th Way

Home Address

Suite or Apt

Gainesville

City

FL
State

32608

Postal Code

pcvgt@ufl.edu

Email Address

Mobile: (352) 219-5685

Primary Phone

Alternate Phone

University of Florida

Employer

Scientist

Occupation

Education:

Ph.D.: Plant Pathology, 05/2021 - University of Florida Master of Science: Horticulture, Applied Statistics (minor), 05/2016 - New Mexico State University Bachelor of Arts: Biology, 12/2010, University of Virginia

Professional Organizations:

American Phytopathological Society University of Florida Post-Doctoral Association

Which Boards would you like to apply for?

Local Planning Agency and Planning Commission: Submitted

James C Fulton

If you are an Alachua County resident, how long have you lived in the county?

6 years

Supplemental Questions

Some of the boards and committees appointed by the County Commission are required to comply with Chapter 112, Florida Statutes, the Financial Disclosure Law. If applicable, would you be willing to file the required financial statement?

☒ Yes ☐ No

Do you affirm that your personal and business (if applicable) affairs within Alachua County are in substantial compliance with all county regulatory and taxing authorities rules and regulations?

☒ Yes ☐ No

Please Agree with the Following Statement

Appointees to advisory board/committees are required to attend scheduled meetings as specified in the "Guidelines for Citizen Advisory Boards and Committees".

☒ I Agree

Please Agree with the Following Statement

I understand that this completed application is the property of Alachua County and I hereby certify that the statements made on this application are true and correct.

☒ I Agree

James C. Fulton

Plant Pathology Department – University of Florida
2550 Hull Road, PO Box 110680, Gainesville FL 32611
Phone: (352) 219-5685; Email: pcvgt@ufl.edu

Professional Summary

Dynamic and driven plant scientist with integrated expertise incorporating the fields of plant pathology and plant physiology. Guided by a curiosity to understand the etiologies of emerging diseases, develop efficacious integrated pest/pathogen management strategies, and effectively deliver essential information to public and private stakeholders. Proven ability to thrive in high pressure environments while also successfully initiating and completing independent and collaborative projects. A life-long learner and advocate of education and public outreach.

Education

Ph.D.: Plant Pathology, 05/2021 (GPA: 3.99/4.00)

University of Florida (UF) – Gainesville, Florida

- A S Herlong Scholarship (2019-2020)
- John Edwardson Plant Pathology Scholarship (2019-2020)
- Awarded AGRI Council Scholarship (2017)
- Attended the Borlaug Summer Institute on Global Food Security (2017)
- Awarded the University of Florida Graduate School Fellowship Award (2016-2020)

Master of Science: Horticulture, Applied Statistics (minor), 05/2016 (GPA: 3.953/4.00)

New Mexico State University (NMSU) – Las Cruces, New Mexico

- Fellowship, National Science Foundation's GK-12 DISSECT Program
- Marvin Wilson Memorial Endowment Fund 2015
- NM Crop Production Association Scholarship Award 2015
- Paul W. Price Memorial Scholarship
- Albuquerque Area Extension Master Gardeners Current Use Scholarship
- Awarded NMSU Agricultural Experiment State Poster "Award of Excellence" for quality research

Bachelor of Arts: Biology, 12/2010 (GPA: 3.65/4.00)

University of Virginia (UVA) – Charlottesville, Virginia

Work History

Postdoctoral Associate, 06/2021 to Present (M-F, 40 hours)

University of Florida, Plant Pathology Department – Gainesville, Florida

- Create and authenticate a universal fungal pathogen detection system, Pathogène-U.
- Instruct plant protection specialist users how to use and optimize the technology
- Develop new classification and prediction computational pipelines
- Validate alternative machine learning models within high-performance computing environment
- Curate the scientific database generated from data submitted by Pathogène-U users.

Graduate Research Fellow, 08/2016 to 05/2021 (M-F, 40 hours)

University of Florida, Plant Pathology Department – Gainesville, Florida

Doctoral (PhD) dissertation: We are harnessing a multi-disciplinary approach to advance our understanding of a plantain soft rot disease, so that disadvantaged Haitian farmers can be supported by improved disease mitigation and management strategies. A combination of traditional plant pathological methods,

molecular/genomic plant pathology, social science, and epidemiological modelling are used to address fundamental and applied topics including prevention, detection, and risk management. Priority themes include understanding the basic etiology and key modes of transmission, identifying efficacious management options, describing plant pathogen interactions, and modelling epidemic spread throughout landscapes.

- Identify the causal organisms responsible for plant disease initiation and development
- Employ conventional plant pathology methods to characterize key modes of transmission
- Model epidemic spread through heterogeneous populations and landscapes
- Evaluate the efficacy of alternative management strategies
- Employ genomic sequencing technologies to build *de novo* genome assemblies
- Perform comparative genomic analysis to identify genetic factors pertinent to disease severity

Graduate Research Assistant, 01/2014 – 05/2016 (M-F, 40 hours)

New Mexico State University, Department of Plant and Environmental Sciences – Las Cruces, New Mexico

Master's thesis: An investigation of Stip, a physiological disorder that affects certain pepper cultivars, most notably bell-pod types. Symptoms present as brown, black, and yellow ovoid-shaped necrotic lesions, approximately 0.5 to 1.0 cm long by 0.5 cm wide, making peppers unmarketable. We used fluorescent and confocal microscopy to reveal a unique fluorescent signature and associated absence of chlorophyll. High pressure liquid chromatography and gas chromatography-mass spectrometry analyses of these tissues detected significant differences in metabolites of which several have been associated with fruit maturation and/or senescence.

- Conduct basic research into the underlying causes of an abiotic disorder affecting pepper
- Develop a reliable greenhouse inducement protocol to facilitate research progress
- Identify the chemical profile of the disorder through analysis of secondary metabolites
- Describe the microscopic phenotypic symptomology
- Conduct susceptibility trials amongst economically important cultivars

Food Security Facilitator, 08/2011 – 10/2013 (M-F, 40 hours)

US Peace Corps – Santa Lucia La Reforma, Guatemala

- Train and coach smallholder farming families and community agricultural professionals working within the national extension system on a variety of topics including bio-intensive gardening practices (compost making, green manure, vegetable nursery), educational facilitation techniques and adult experiential learning methods
- Construct bio-intensive gardening demonstration plots to promote improvements in quality and quantity of horticultural production
- Inducted into Paul D. Coverdell Fellowship for successful completion of service (2013)

Assistant Instructor, 03/2008 – 4/2011 (M-F, 40 hours)

Northern Virginia Community College – Sterling, Virginia

- Support students in reaching their academic goals by teaching them a variety of disciplines including mathematics, biology, chemistry, and English
- Engage students in learning activities that improve their academic skills (e.g. planning, time management, organization, etc.), increase understanding of course content, enhance students' self-confidence, and encourage positive attitudes towards learning
- Work with staff members, teachers, and students to design comprehensive and individualized plans to optimize student education

Corps Member, 01/2006 – 12/2006 (M-F, 40 hours)

Americorps National Civilian Community Corps (NCCC) – Denver, Colorado (and various project sites)

- Support critical life-saving organizations such as FEMA and the Red Cross in delivering aid post-Hurricane Katrina to citizens in New Orleans, Louisiana and Beaumont, Texas
- Lead teams of volunteers to rehabilitate homes. Responsibilities included ensuring physical safety, maintaining adequate work progress, boosting team morale, and logistical support for recovery teams.
- Assist recovery operations including natural resource organizations and national parks
- Awarded the Congressional Award of Service for demonstrating "initiative, service, and achievement"
- Awarded the President's Volunteer Service Award for dedication to service

Publications

Hudson, O., Waliullah, S., **Fulton, J. C.**, Pingsheng, J., Dufault, N., Keinath, A., and M. E. Ali. 2021. Marker Development for Differentiation of *Fusarium oxysporum* f. sp. *Niveum* Race 3 from Races 1 and 2. *International Journal of Molecular Sciences* 22(2): 822. <https://doi.org/10.3390/ijms22020822>.

Andersen, K. F., Forbes, G. A., Andrade-Piedra, J., Buddenhagen, C. E., **Fulton, J. C.**, Gatto, M., Khidesheli, Z., Mdivani, R., Xing, Y., and K. A. Garrett. 2020. An integrated seed health strategy and phytosanitary risk assessment: potato in the Republic of Georgia. *Agricultural Systems* 191: 103144. <https://doi.org/10.1016/j.agsy.2021.103144>.

Uchanski, M. E. and **J. C. Fulton**. Pernezny, Ken, Pamela D. Roberts, John F. Murphy, and Natalie P. Goldberg, eds. *Compendium of pepper diseases*. Part III. Abiotic and Physiological Disorders. Color Spotting or Stip. Submitted October 2020.

Fulton, J. C.[¶], Amaradasa, S. B.[¶], Ertek, T. S., Iriarte, F., Sanchez, T., Ji, P., Paret, M., Hudson, O., Ali, E., and N. S. Dufault. 2021. Phylogenetic and phenotypic characterization of *Fusarium oxysporum* f. sp. *niveum* isolates from Florida-grown watermelon. *PLoS One* 16(3): e0248364. <https://doi.org/10.1371/journal.pone.0248364>.

Fulton, J. C., Holguin, F. O., Steiner, R. L., and M. E. Uchanski. 2020. A Microscopic and Metabolomic Description of Stip-affected Tissue in New Mexico Pod Type Peppers (*Capsicum annuum* L.). *Journal of the American Society for Horticultural Science* 146(3): 169-177. <https://doi.org/10.21273/JASHS05004-20>.

Fulton, J. C., Steiner, R. L., Colee, J. and M. E. Uchanski. 2020. A description of the progression of stip, a reputed physiological disorder, in two pepper (*Capsicum annuum* L.) cultivars grown in a greenhouse. *European Journal of Horticultural Science* 86(3): 243-251. <https://doi.org/10.17660/eJHS.2021/86.3.3>.

Klein-Gordon, J., Xing, Y., Garrett, K.A., Abrahamian, P., Paret, M.L., Minsavage, G.V., Strayer-Scherer, A.L., **Fulton, J. C.**, Timilsina, S., Jones, J.B. and E. M. Goss. 2020. Assessing Changes and Associations in the *Xanthomonas perforans* Population Across Florida Commercial Tomato Fields Via a Statewide Survey. *Phytopathology*. <https://doi.org/10.1094/PHYTO-09-20-0402-R>.

Fulton, J. C., Huguet-Tapia, J. C., Adams, S. M., Dufault, N. S., Quesada, T., and J. T. Brawner. 2020. Draft Genome Sequences of Three *Fusarium circinatum* Isolates Used To Inoculate a Pedigreed Population of *Pinus elliotii* Seedlings. *Microbiology Resource Announcements*, 9(30): e00631-20. <https://doi.org/10.1128/MRA.00631-20>.

- Fulton, J. C.**, Klein, J. K., Bec, S., Fayette, J., Garrett, K. A., Jones, J. B., Timilsina, S., and C. L. Harmon. 2020. Draft Genome Sequences of Plant-Pathogenic *Klebsiella variicola* Strains Isolated from Plantain in Haiti. *Microbiology Resource Announcements*, 9(29): e00336-20. <https://doi.org/10.1128/MRA.00336-20>.
- Fulton, J. C.**, Bec, S., Fayette, J., Ploetz, R. C., Garrett, K. A., and C. L. Harmon. 2020. First Report of Plantain Soft Rot Caused by *Klebsiella variicola* in Haiti. *Plant Disease*, 104(6): 1851. <https://doi.org/10.1094/PDIS-10-19-2105-PDN>.
- Garrett, K. A., R. I. Alcalá-Briseño, K. F. Andersen, R. A. Choudhury, W. Dantes, J. Fayette, **J. C. Fulton**, R. Poudel, and C. G. Staub. 2020. Adapting disease management systems under global change. In: A. Records and J. B. Ristaino (Editors), *Emerging Plant Diseases and Global Food Security*. American Phytopathological Society Press, St. Paul, Minnesota.
- Fayette, J., S. Bec, S. Loubeau, **J. C. Fulton**, K. A., Garrett, and C. L. Harmon 2020. First Report of *Lasiodiplodia hormozganensis* Causing Fruit Rot of Eggplant in Haiti. *Plant Disease* 104(2): 592. <https://doi.org/10.1094/PDIS-05-19-1093-PDN>.
- Garrett, K. A., R. I. Alcalá-Briseño, K. F. Andersen, C. E. Buddenhagen, R. A. Choudhury, **J. C. Fulton**, J. F. Hernandez Nopsa, R. Poudel, and Y. Xing. 2018. Network analysis: A systems framework to address grand challenges in plant pathology. *Annual review of phytopathology* 56: 559-580. <https://doi.org/10.1146/annurev-phyto-080516-035326>
- Fulton, J. C.** and M. E. Uchanski. 2017. A Review of Chile Pepper (*Capsicum annuum*) Stip: A Physiological Disorder of Peppers. *HortScience* 52(1): 4-9. <https://doi.org/10.21273/HORTSCI11123-16>.
- Burgett T., R. Folk, **J. Fulton**, A. Peel, E. Pontelli, and V. Szczepanski. 2015. DISSECT: Analysis of Pedagogical Techniques to Integrate Computational Thinking into K-12 Curricula. *2015 IEEE Frontiers in Education Conference (FIE)*, 2015: 1-9. <https://doi.org/10.1109/FIE.2015.7344241>.
- Peel, A., **J. Fulton**, and E. Pontelli. 2015. DISSECT: An Experiment in Infusing Computational Thinking in a Sixth Grade Classroom. *2015 IEEE Frontiers in Education Conference (FIE)*, 2015. <https://doi.org/10.1109/FIE.2015.7344240>.