



William C. Beckerson

Wednesday August 14, 2019, by [admin-STEM](#)

2016 Chateaubriand STEM Fellow University of Louisville - Université of Paris-Sud Disease Evolution

William C. Beckerson is currently a PhD candidate at the University of Louisville, and he was a Chateaubriand fellow in 2016 at the Université of Paris-sud for 3 months.

In which field did you carry out your research for your PhD and what was your specific area of study?

Biology: Program on Disease Evolution

What is your current occupation?

Graduate Candidate

Please give a brief description of the work you completed in France:

Together with the Giraud lab at the Université Paris-Sud, we worked on a collaborative study involving the bioinformatic comparison of three species of *Microbotryum* in order to annotate and compare secretomes of different species. While in Orsay, I also learned infection techniques for *Silene latifolia* with *Microbotryum lychnidis-dioicae* to be able to perform future studies at my home institution, the University of Louisville. Furthermore, I taught the Giraud lab how to perform transformation of *Microbotryum* species utilizing *Agrobacterium*-mediated transformation, a protocol developed at the University of Louisville.

How was your experience as a researcher in France?

Performing research in France with the members of the Giraud lab was a tremendous experience, both for my professional and personal life. Exploring the cultural differences and ways of thinking greatly broadened my worldview, and collaboration with other institutions has facilitated the flow of ideas between our research groups.

Comments on your experience as a researcher in France and conditions in your host lab:

Collaboration between our lab at the University of Louisville and the Giraud lab at the Université Paris-Sud has been complementary, facilitating the flow of ideas and research opportunities. Our experience with molecular genetics and their expertise in bioinformatics blend wonderfully to approach research questions from a broader view, and allows each of our groups to work together to solve problems from different but complimentary perspectives.

Did or will your research in France lead to any co-publications?

Yes, our work during my time in France, along with follow up experiments performed after returning to my home institution, have led to a collaborative research paper that has just been submitted for review.

If yes, please describe (name of journal, date of publication):

mBio - under review

Did you or one of your supervisors present your work at a seminar? Do you plan on doing so?

I plan to present our findings this at the Genetic Society of America Fungal Genetics Conference

If yes, please describe (name of seminar, date, type of presentation):

Asilomar - Fungal Genetics Conference, March 11th-17th, Poster and Oral presentation

In your opinion, did the Chateaubriand Program contribute to closer ties between your US and French labs (why or why not)?

Absolutely. My time in France under the Chateaubriand Program has strengthened collaboration between our two groups, even with individuals who have joined our program since my return.

Did you improve your French while in France?

Un peu.

Do you plan on returning to France in the future?

If yes, please describe your plans:

Our groups have a third collaborator at the Universität Bochum in Germany, with whom I will be conducting research with for 3 months in the Summer of 2019. During this time, we plan to all meet at a conference hosted in Bochum to plan for future collaborative opportunities. I also plan to visit the lab in Orsay, France during my time abroad.

Did you participate in any extracurricular activities or travel while in France?

Of course! The Louvre, Arc De Triomphe, Eiffel Tower, 2016 UEFA Euro Championship, wine, gothic architecture, nature walks, more wine, the catacombs of Paris, Musée de l'Armée - Dôme des Invalides, the beaches of Normandy, the many vineyards. So much to do in just three months!