

Self-Statement -Emeritus Plans

Research:

With an active NSF Plant Genome grant through April 2026 and a 2nd year graduate student co-mentored with Jason Stajich, my plan is to continue to be involved in research at least until this grant expires. The UCR component of the project involves sequencing two recombinant inbred rice populations during a very active burst of the Ping/mPing transposable element family. My lab discovered this very active TE family over 20 years ago and its analysis continues to reveal different ways that active TEs modify the genome. In this project we are combining short and long read sequencing of over 500 RIL from two populations. One goal is to identify structural variants – which we found were significantly increased in our last publication (Chen et al PNAS 2021).

Teaching:

Over the past 5 years I have completely turned over the direction of the Dynamic Genome program and the Campbell Labs to Dr. James Burnette and his team. During that time, I set up a \$1 million endowment with Rochelle Campbell to support student stipends during the summer programs.

In the future, I have been working with a team led by Dr. David Nelson to develop a new major in Genomics and Biotechnology. As part of this exciting endeavor, I submitted a syllabus for a new Genomics course for upper class students that I hope to teach, possibly as early as Fall 2024, but more realistically, not until 2025. I also hope to continue to teach sections of BPSC240 as I really enjoy interacting with graduate students, especially those just starting out.

Mentoring:

I am part of Dr. Linda Walling's NSF program where I am mentoring a 2nd year Assistant Professor in Biochemistry. In a less formal setting, I have also been mentoring a second, more advanced Assistant Professor in Biochemistry. I am enjoying these experiences and look forward to additional mentoring opportunities if the occasion arises.

Service to my profession:

I completed my third four-year term as Home Secretary of the National Academy of Sciences (NAS) in June, 2023. My major emphasis was increasing the diversity of newly elected members – especially women and Black scientists. During my 12 years in the job, the percentage of women members increased from ~10.5% in 2011 to 22% in 2022 and the number of Black scientists elected each year rose from 0-2 to 5-10.

In addition, with NAS President Marcia McNutt and Vice President Diane Griffin, we set up a \$1 million endowment that included a plaque near the Einstein statue in front of the National Academy Building on Constitution Avenue that reads “Dedicated to the Contributions of Women to Science”.