

Interview with Dr. Mary Ritke Bioinformatics Mini-Grant Team Leader

Purpose

The purpose of this interview is to briefly familiarize the reader with the IEC Bioinformatics minigrant.

Interview

Mary Ritke, Associate Professor in Biology, graduated with her Ph.D. from the University of Illinois- Urbana Champaign, Postdoctoral Fellowship at St. Jude Children's Research Hospital and the University of Pittsburgh.

Dr. Ritke previously received internal grants to build a program in Forensic DNA Analysis.

It is evident that Dr. Mary Ritke's IEC mini-grant strongly addresses an identified need for an undergraduate degree in biology and chemistry to have basic skills in bioinformatics. Bioinformatics is a relatively new discipline in which biology, information technology, mathematics, and computer science are used to organize, archive, and analyze large data sets, and to design experiments. Components of this program include public outreach to Indiana high schools. This program is also designed to allow students in other fields of study to investigate informatics as a field of specialization in bioinformatics.

Moreover, Dr. Ritke expresses her vision for the bioinformatics mini-grant as incorporating bioinformatics into several existing courses as well as developing specialty courses in bioinformatics. Dr. Ritke also hopes to establish Academic and working partnerships with several local Indiana industries that will result in the creation of internships for University of Indianapolis students. Finally, Dr. Ritke anticipates increasing the number of students interested in bioinformatics.

Dr. Ritke says that she was encouraged to do this research study by several colleagues and during Dr. Ritke's recent sabbatical she recognized bioinformatics as an essential job skill for scientists (rather than a specialty skill).

In her academic pursuit, Dr. Ritke networks with several basic scientists from IUPUI and Dowagro Sciences. Also, Dr. Ritke connects with the leaders of small start-up biotech companies that are associated with Indiana Health Industries Foundation (IHIF) and Emerging Technology Center (ETC)

In conducting her academic research, Dr. Ritke utilizes the knowledge of her focus group, articles from Science and Nature related to bioinformatics, textbooks, and websites. Also, Dr. Ritke attends various science-related workshops.

If Dr. Ritke was given an opportunity to launch a new research project, she would have chosen something interdisciplinary combining physics, chemistry, biology. Possibly arts science or historical science. And, definitely mentorship team building projects between high school and college teachers.

For more information on the IEC minigrant programs, contact the IEC Executive Director Dr. Bruce Strom at bstrom@uindy.edu, or IEC Assistant Director Mr. Ron Dow at rdow@uindy.edu