**VIRTUAL AR-BIC 2022: OPEN AND REPRODUCIBLE SCIENCE**
**MARCH 10-11, 2022 - ONLINE**
**EXECUTIVE SUMMARY & ACCOMPLISHMENTS**
*June 21, 2022*

Out of concern for public safety, the Arkansas Bioinformatics Consortium (AB-BIC) conducted its 8th annual conference on March 10-11, 2022, online via Zoom. This year's theme focused on "Open and Reproducible Science". The event allowed researchers, students, and leaders from the academic, commercial, and government communities to share insights and findings. It showcased research conducted by world class scientists and highlighted exciting projects underway at the professional, graduate, and undergraduate levels from research universities, institutes, and facilities across Arkansas, the United States, and around the world.

This two-day experience ultimately strengthens Arkansas' ability to compete at national and international levels for research funding and expands the state's economic growth and job opportunities. As a result of the conference, AR-BIC's aims were advanced across four key areas:

1) Preregistered, Open, Reproducible, and FAIR Science
2) Bioinformatics Problem Defining and Solving with No-Boundary Thinking
3) Artificial Intelligence and Machine Learning
4) Microbiome and Microbial Genomics.

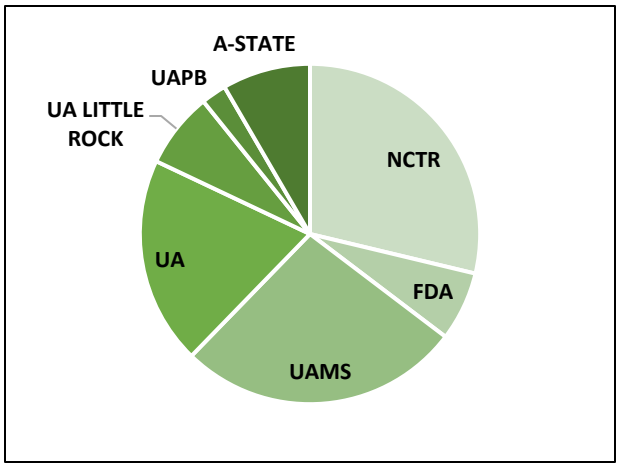
Combined, there were 20 presentations on these topics. Additionally, two special keynote presentations concentrated on drug discovery, development, and open science along with AI/ML in predictive toxicology. Highest-rated sessions included:

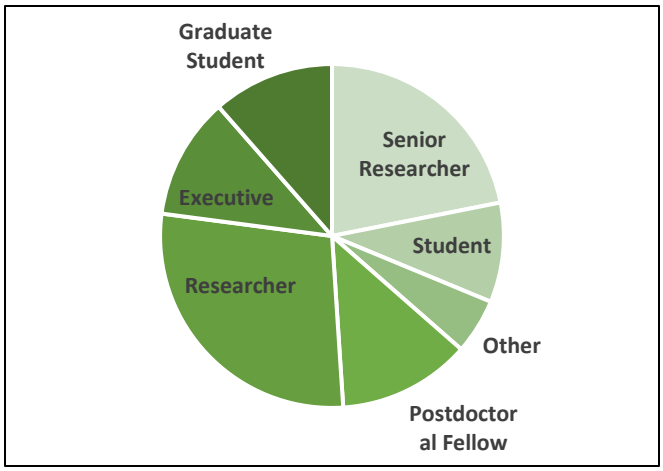
- Fred Prior (UAMS): Distributed Machine Learning to Create Imaging Phenotypes of Cancer
- Jason Moore (Cedars Sinai): Automating Bioinformatics Analysis
- Keith Bush (UAMS): Lessons Learned: A Neuroimaging Research Center's Transition to Open and Reproducible Science
- Susanna-Assunta Sansone (Oxford University, UK): FAIRification is a Team Sport.

Other elements of the conference helped foster student education and overall collaboration opportunities. A lightning session of student presentations provided an enhanced educational and hands-on training experience for students. Also, a special resource to enable and facilitate collaboration in research was highlighted – the ARA Core Facilities Exchange – which is an online platform that features unique research instrumentation and capabilities at seven partner institutions across the state.

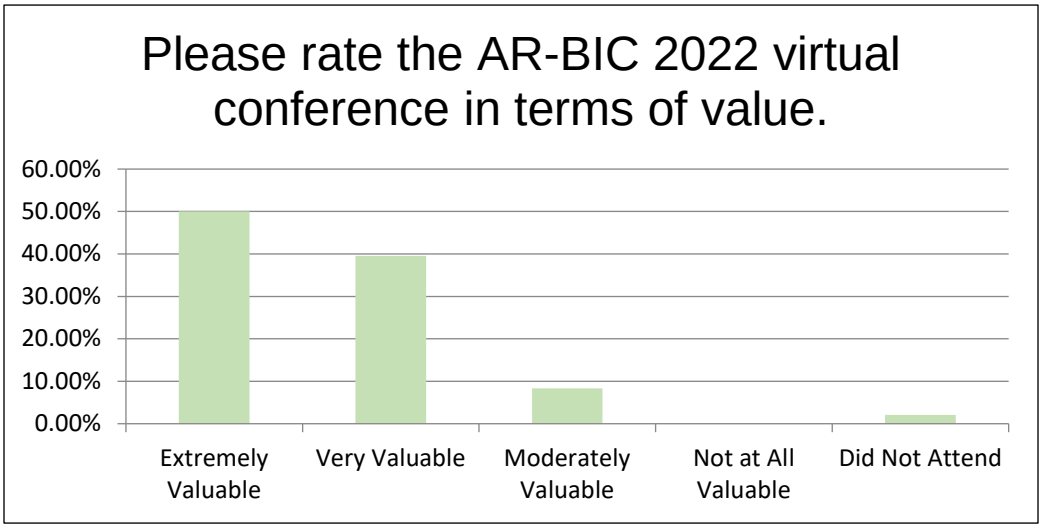
Approximately 200 people attended the conference and represented many members of the state's most significant research communities. Registration and attendance distributions are illustrated in the charts below:

194 Registrants




## Survey Results

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