

NCBI

BioEd Summit
*Crafting Student-Centric Curricula
with NCBI Resources*

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NIH National Library of Medicine
National Center for Biotechnology Information



Final Presentations
*BioEd Summit: Crafting Student-Centric
Curricula with NCBI Resources*
August 9th 12:30 PM – 3:30 PM

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BioEd Summit: Crafting Student-Centric Curricula with NCBI Resources

We were pleased to host a week-long, in-person event for science educators across the U.S. to come, interact and collaborate with each other in teams in a codeathon-style curriculaathon. The goal was for them to develop exciting curricular packages (including learning objectives, course materials, and assessments) that they would be able to use in their classrooms/courses.

During the week, we held interactive workshops on NCBI resources and a panel discussion on employing novel, data-driven, active learning exercises in science classes.

At the end of the week, the teams will present their work to each other, NIH staff and the scientific education community, colleagues and friends.

➤ **Learn more about the BioEd Summit:**

<https://www.nlm.nih.gov/ncbi/workshops/BioEdSummit-2024/>



An official website of the United States government [Here's how you know](#) ▼

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Event Summary | [Schedule](#) | Curriculaathon Information | Team Projects | Final Presentations

- Day 2 Morning Session - NCBI Curriculum Design Workshop
- Day 3 Morning Session - NCBI Data Analysis & Visualization Tools Workshop
- Day 4 Morning Session - Cutting-edge Curricula Panel
- Policies & Guidelines
- Technical Help
- About the Venue

Monday | Tuesday | Wednesday | Thursday | Friday

Monday, August 5, 2024

MORNING		
9:00 am - 9:30 am	Rana Morris, PhD. <i>Outreach Director</i> Alexa Salsbury, PhD. <i>Outreach Team Member</i> E. Sally Chang, PhD. <i>Outreach Team Member</i>	Welcome & Overview of the Week's Activities
9:30 am - 10:15 am	Alexa Salsbury, PhD. <i>Outreach Team Member</i>	Technical Infrastructure & Collaboration Tools
15 minute BREAK		
10:30 am - 11:00 am	Rana Morris, PhD. <i>Outreach Director</i>	An Inspiration Presentation: Novel, Exciting Pedagogy in Practice!

BioEd Summit: Crafting Student-Centric Curricula with NCBI Resources

NCBI Outreach Leads:

Rana C. Morris, PhD
E. Sally Chang, PhD
Alexa M. Salsbury, PhD

NCBI Outreach Support:

Barb Cerny
Michelle Formica-Frizzi
Dana Casciotti, PhD
Wayne Matten, PhD
Jiyao Wang, PhD

**NNLM Region 3
Regional Medical Library (UNT)**
Brian Leaf & Kalei Malczon-Dorris

NLM OET:
Blair Anton & Martha Meacham



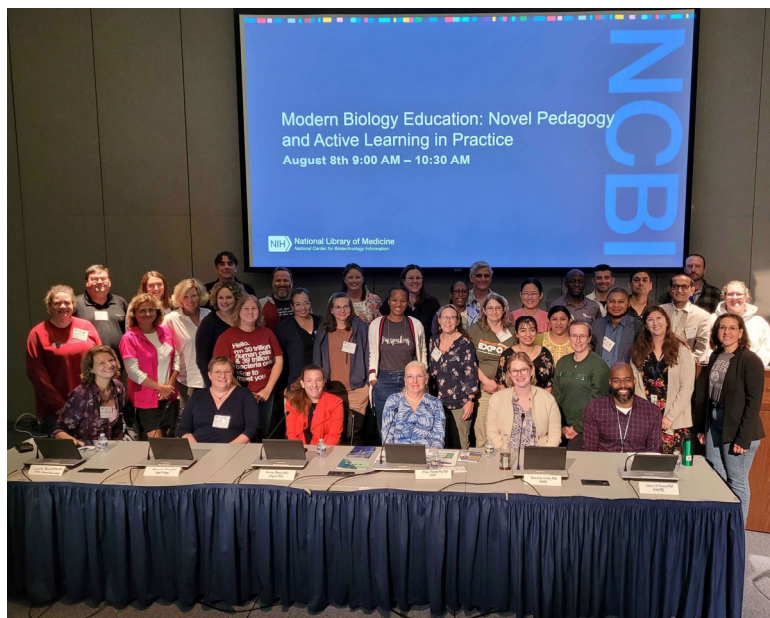
This work was supported by the National Center for Biotechnology Information of the National Library of Medicine (NLM), National Institutes of Health.

For their support for this event, we are particularly grateful for:

**NLM Office of Engagement & Training
&
Network of the National Library of Medicine (NNLM) Region 3
Regional Medical Library (UNT)**



Region 1 · Region 2
Region 3 · Region 4
Region 6 · Region 7



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BioEd Summit: Crafting Student-Centric Curricula with NCBI Resources

30 participants

from 16 States and Puerto Rico

Working with students at:

- 7 High Schools
- 9 Community/Junior Colleges
- 5 Colleges/Universities: Bachelors-granting
- 4 Universities: Masters-granting
- 2 Universities: Doctoral Research 2-level
- 5 Universities: Doctoral Research 1-level

Teaching courses including:

- High School, AP & College Biology
- Biochemistry, Chemistry, Toxicology, Pharmacology
- Cell & Molecular Biology
- Genetics
- Microbiology
- Anatomy & Physiology
- Evolutionary Biology
- Environmental Science, Biology & Chemistry
- Bioinformatics



BioEd Summit: Crafting Student-Centric Curricula with NCBI Resources

Jeffrey Robinson

Katie Sandlin

Kehinde Idowu

Kelly Vaughan

Cynthia Woosley

Hattie Dambroski

Michael Peglar

Marie Montes-Matias

Jennifer Schroeder

Lia Walker

Kaitlin Bonner

Natalie Minkovsky

Cathy Dobbs

Karla Fuller

Morgan DAusilio

Nirmal Singh

Ferdinand Nanfack-Minkeu

Deirdre O'Mara

Richard Zimny

Mary Knight

Brandon Boswell

Ifrah Shahi

Heather Patterson

Gabriel Guzman

Kari Severson

Ning Sui

Shweta Tripathi

Antonio Colom

Nik Tsotakos

Pradip Misra





A FULL WEEK AT NIH

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Final Presentation Order:

Team Just-Franklin
Team Dayhoff
Team Carver

Team McClintock
Team Finlay
Team Uchida

10-minute break



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The importance of personalized genomics in breast cancer diagnosis and treatment: A case study involving the androgen receptor gene

Team Just - Franklin

- Nik Tsotakos, Ph.D. - Penn State Harrisburg
- Antonio Colom, Ph.D. - Interamerican University of Puerto Rico, Metropolitan Campus
- Morgan D'Ausilio, Ph.D. - The Pingry School
- Pradip Misra, Ed.D. - Bagdad Unified School District
- Deirdre O'Mara, B.A. - The Pingry School
- Nirmal Singh, Ph.D. - MassBay Community College
- Ning Sui, Ph.D. - North Carolina State University
- Shweta Tripathi, Ph.D. - Tuskegee University



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Molecular Basis of Insulin Receptor Function Using NCBI Tools

Team Dayhoff

- Kelly Vaughan, Ph.D. - King University
- Kehinde Idowu, Ph.D. - Texas Southern University
- Jeffrey Robinson, Ph.D. - University of Maryland Baltimore County
- Katie Sandlin, M.S. - Genomics Education Partnership / The University of Alabama

Sublime Dynamite

Team Carver

- Richard (Jake) Zimny, B.A., M.Ed - The School District of Philadelphia, Pennsylvania
- Brandon Boswell, B.S. - Broward County Public Schools, Florida
- Mary Knight, B.S., M.Ed - Arlington Public Schools, Virginia

In the Weeds: Genomic Analysis of Glyphosate Resistance in Crop Fields

Team McClintock

- Jennifer Schroeder, Ph.D. - Young Harris College
- Hattie Dambroski, Ph.D. - Normandale Community College
- Marie Montes-Matias, Ph.D. - Union College of Union County, New Jersey
- Michael Peglar, Ph.D. - Northern Virginia Community College, Annandale Campus
- Cynthia Woosley, M.S. - Virginia Highlands Community College

Flu Fighters

Team Finlay

- Heather Patterson, Ph.D. - University of Alabama at Birmingham
- Gabriel (Gabe) Guzman, Ph.D. - Triton College
- Ferdinand Nanfack-Minkeu, Ph.D. - College of Wooster
- Kari Severson, Ph.D. - Rockford University
- Ifrah Shahi, Ph.D. - University of Pennsylvania / Children's Hospital of Philadelphia

A Tale of Two Diabetes

Team Uchida

- Natasha (Natalie) Minkovsky, Ph.D. - Community College of Baltimore County
- Kaitlin Bonner, Ph.D. - St. John Fisher University
- Cathy Dobbs, Ph.D. - Joliet Junior College
- Karla Fuller, Ph.D. - Guttman Community College - CUNY
- Lia Walker, Ph.D. - Chowan University



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BioEd Summit 2024 - Team Projects

▼ **Team Just - Franklin: The importance of personalized genomics in breast cancer diagnosis and treatment: A case study involving the androgen receptor gene**

Your project description (goal & learning objectives) will be copied here from your GitHub repo - when it is ready.

<https://www.nlm.nih.gov/ncbi/workshops/BioEdSummit-2024/>

Team Members:

- Nik Isotakos, Ph.D. - Penn State Harrisburg (Team Lead)
- Antonio Colom, Ph.D. - Interamerican University of Puerto Rico, Metropolitan Campus
- Morgan D'Ausilio, Ph.D. - The Pingry School
- Pradip Misra, Ed.D. - Bagdad Unified School District
- Deirdre O'Mara, B.A. - The Pingry School
- Nirmal Singh, Ph.D. - MassBay Community College
- Ning Sui, Ph.D. - North Carolina State University
- Shweta Tripathi, Ph.D. - Tuskegee University

▼ **Team Dayhoff**

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