



NABT 2025
ST LOUIS



**2025 NABT Professional
Development Conference**
October 30 – November 2, 2025
St. Louis Union Station Hotel



NABT
National Association of
Biology Teachers

**NABT Professional
Development Conference**

October 30 - November 2
Union Station Hotel, St. Louis, Missouri

A Special Thanks
to Our Generous 2025 Conference Sponsors & Exhibitors!

PROGRAM PARTNER



DIAMOND LEVEL SPONSORS

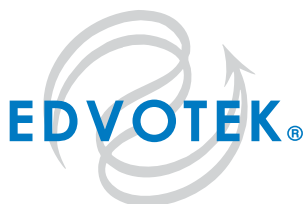


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CATCH-UP WITH VEDHAM IN ST. LOUIS!



NABT 2025
ST. LOUIS
OCT 30-NOV 2, 2025

 **NABT**
National Association of
Biology Teachers

**NABT IS REALLY GOING PLACES WITH
VEDHAM KARPAKAKUNJARAM AT THE WHEEL!**

**PASS THE NEXT NABT PRESIDENT IN ST. LOUIS,
AND YOU CAN WIN SOME GREAT PRIZES!**

THE DRAWING WILL BE ON FRIDAY, OCTOBER 31ST.

From The President

On behalf of the National Association of Biology Teachers, it is my great pleasure to welcome you to our annual conference here in the vibrant city of St. Louis. As you hold this program, please know how special it is for all of us to have our community gathered together once more. In the middle of the classroom's challenges and rewards, we all deserve this time to connect, to learn, and to feel a sense of professional and personal rejuvenation.

This conference has been meticulously designed to serve as a hub of innovation and inspiration. Within these pages, you will find a curated collection of sessions and workshops covering innovative and effective pedagogical techniques, the latest in biology education research, and powerful new technologies for the biology classroom. Our lineup of dynamic speakers is set to challenge our thinking with their groundbreaking work, while our hands-on workshops and interactive sessions are crafted to provide you with practical, ready-to-use tools. We also encourage you to explore the diverse insights on display at our poster sessions and the exciting resources available in the exhibit hall.

Beyond the structured programming, this event is about the invaluable connections we make. It's an opportunity to share stories of success and struggle with colleagues who understand the unique challenges and joys of our profession. The bonds formed in moments of spontaneous conversation in the hallways or during a shared coffee break are often the most meaningful and long-lasting. They reinforce the incredible support system and problem-solving that make our organization so strong. If this is your first time at our conference, you're invited to start your day at our **First-Timers' Meet & Greet on Friday, October 31, at 7:15AM in Midway 6**, where we'll introduce you to new colleagues and provide helpful hints for a great few days.

We hope that as you engage with our various conference offerings and connect with your peers, you will feel a sense of renewed energy and purpose. May you leave St. Louis not just with new teaching strategies, but with a full heart and a rekindled passion for the vital work you do every day to inspire the next generation of scientists and community members.

Thank you for being a part of our incredible NABT community!



Kirstin Milks, PhD
NABT President, 2025

Table of Contents

WHAT'S GOING ON

General Information..... 7

Special Events..... 10

Thursday, October 30 23

Friday, October 31 29

Saturday, November 1 43

Biology Education Research Symposium 36

Poster Sessions 44

WHO'S WHO

Highlighted Speakers 18

Committees 13

Board of Directors & Regional Coordinators 12

Past Presidents & Conference Locations 16

Honorary Members 15

Exhibitors 60

AWARDS

NABT Awards Program 14

OBTA Honorees 15

Distinguished Service Award Recipients 17

HELPFUL ITEMS

Certificate of Attendance 77

Index of Program Participants .. 68

Index of Sessions by Subject .. 72

**Booth
143**

miniPCR[®] bio



Join us on Friday for Workshops in Regency B

**8:00 -
9:00 AM**

Real-world genetics:
Explore inherited cancer risk and
bioethics through Lynch syndrome

**10:30 -
11:45 AM**

Easy protein expression and
purification for classroom settings

**12:00 -
12:30 PM**

Central dogma made visible:
Hands-on and digital labs

**1:15 -
1:45 PM**

Words of uncertainty and trust in
science

**2:00 -
2:30 PM**

Diagnosing sickle cell disease:
Hands-on and virtual genetics labs

**2:45 -
4:00 PM**

From barnyard to backyard:
Research projects for the biology
classroom

**See all of our
hands-on labs!**



**Receive a free
miniPCR Digital
All-Access Pass**



ABOUT THE PROFESSIONAL DEVELOPMENT CONFERENCE

All functions, meetings, and exhibits will take place at the St. Louis Union Station Hotel unless otherwise noted.

Please consult this guide and signage for room information.

FOR PERSONS WITH DISABILITIES

Careful consideration is made during the planning of the NABT Conference to make it accessible to all participants. Should you require special services, please go to the registration area to contact an NABT representative. We will strive to meet your needs.

NURSING ROOM

A quiet space has been set aside for you in the Zephyr room on the second floor.

CERTIFICATE OF ATTENDANCE

See page 77

REGISTRATION HOURS

The NABT registration desk is located in the Depot Registration Office (through Midway West). It will be open during the following hours:

Thursday, October 30

7:00AM – 6:00PM

Friday, October 31

7:00AM – 6:00PM

Saturday, November 1

7:00AM – 6:00PM

Sunday, November 2

8:00AM – 10:30AM

FUTURE NABT CONFERENCE DATES & SITES

2026 Professional Development Conference

October 29–November 1, 2026
Hyatt Regency Dallas, Dallas, TX

A limited NABT WiFi network is available.

NETWORK: Curio Meeting

PASSWORD: 1820

ABOUT NABT

The National Association of Biology Teachers (NABT) is the leader in life science education.™ Our association is the largest national organization dedicated exclusively to supporting biology and life science educators. Our members—representing all grade levels— teach more than one million students each year!

Learn more by visiting www.NABT.org

VISITING THE EXHIBIT HALL

The NABT Exhibit Hall is your venue to interact with a diverse group of curriculum designers, publishers, manufacturers, developers, nonprofit partners, and other providers with resources to support you as a biology educator. Receptions, contests, and other special experiences will also be featured in the Exhibit Hall.

Registration badges are required for admission to the Exhibit Hall.

Thursday, October 30 5:30PM – 7:30PM

Friday, October 31 7:30AM – 5:30PM

(Closing Experience starts at 4:00PM)



2025 NABT CONFERENCE APP

Download the Grupio App when you visit the App Store or Google Play. Search for NABT in the App to access the event!



PROVIDING SESSION FEEDBACK

All education sessions are reviewed by the NABT Professional Development Committee for acceptance. Help us ensure you see great sessions at the NABT Conference by sharing your comments at

bit.ly/NABT25sessions

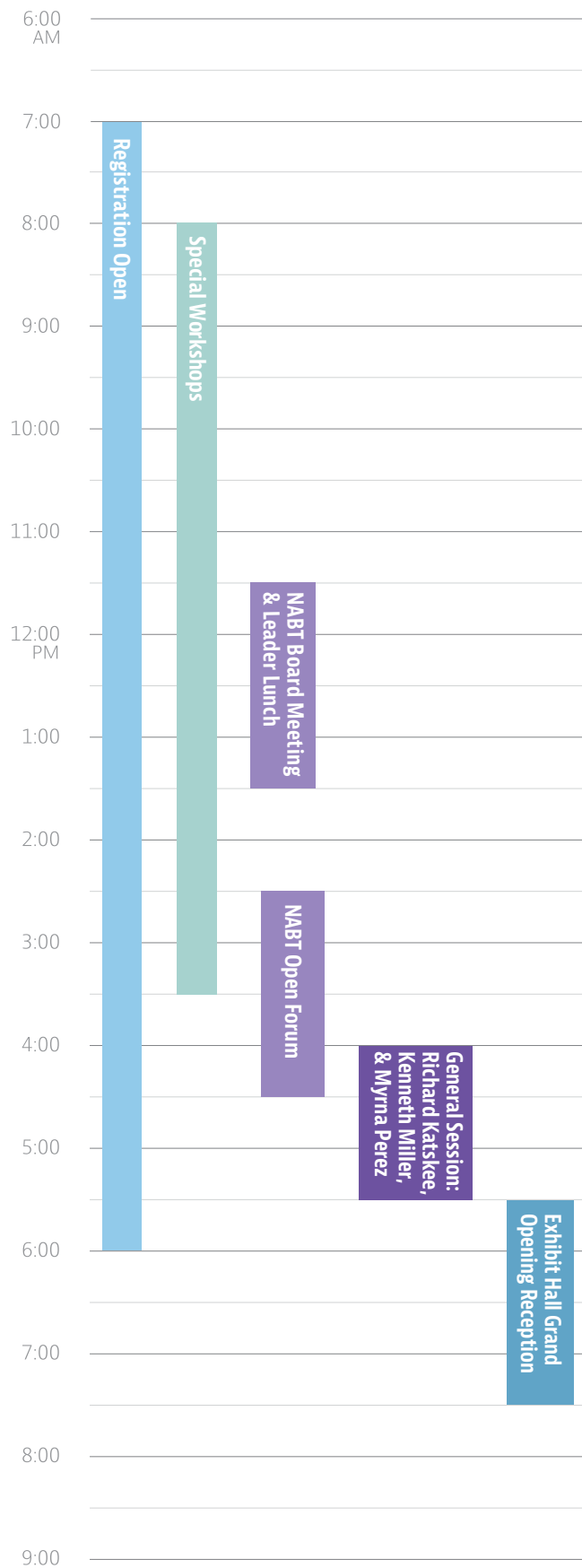


PHONE: (888) 501-NABT

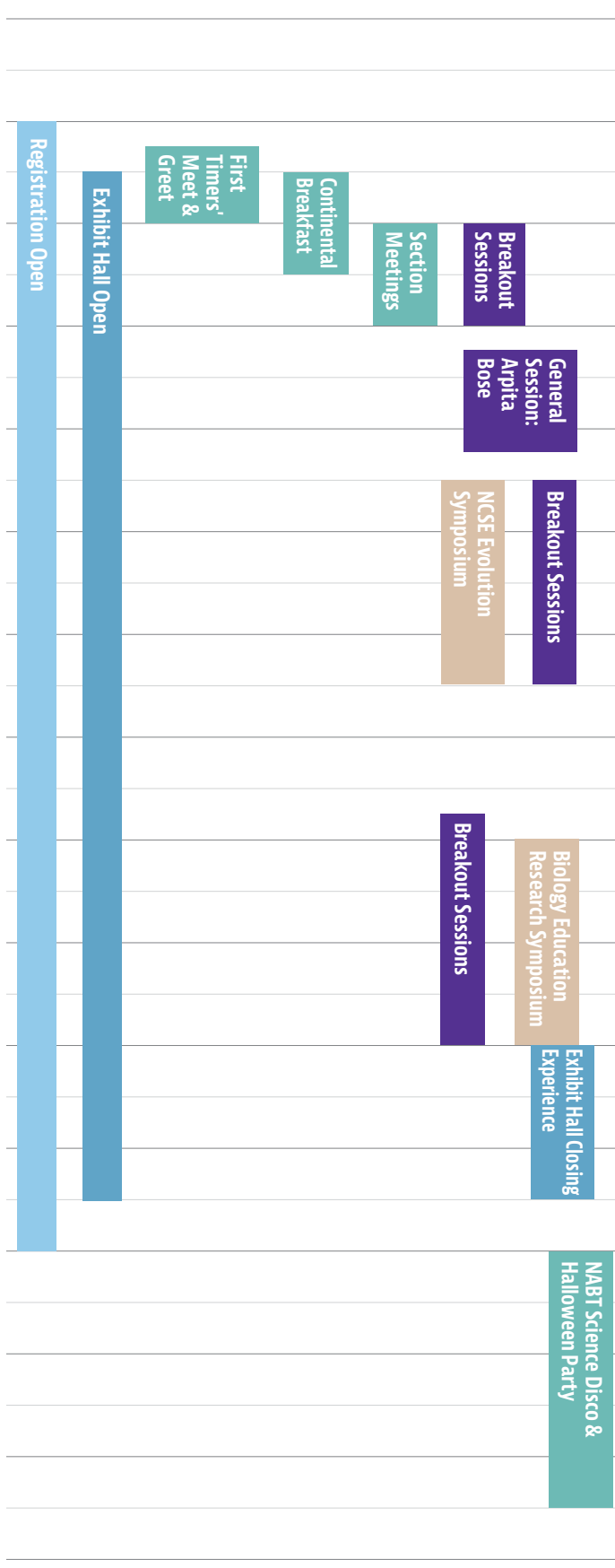
E-MAIL: office@NABT.org

WEBSITE: www.NABT.org

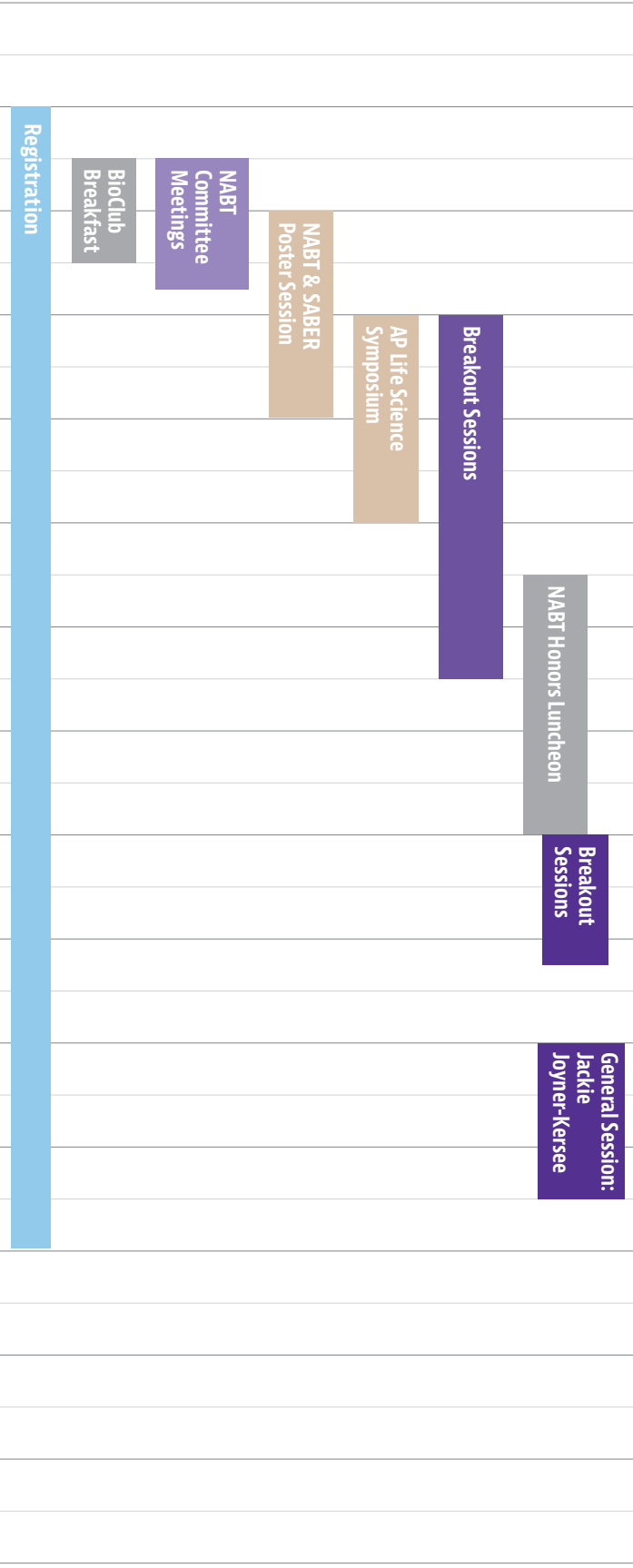
THURSDAY



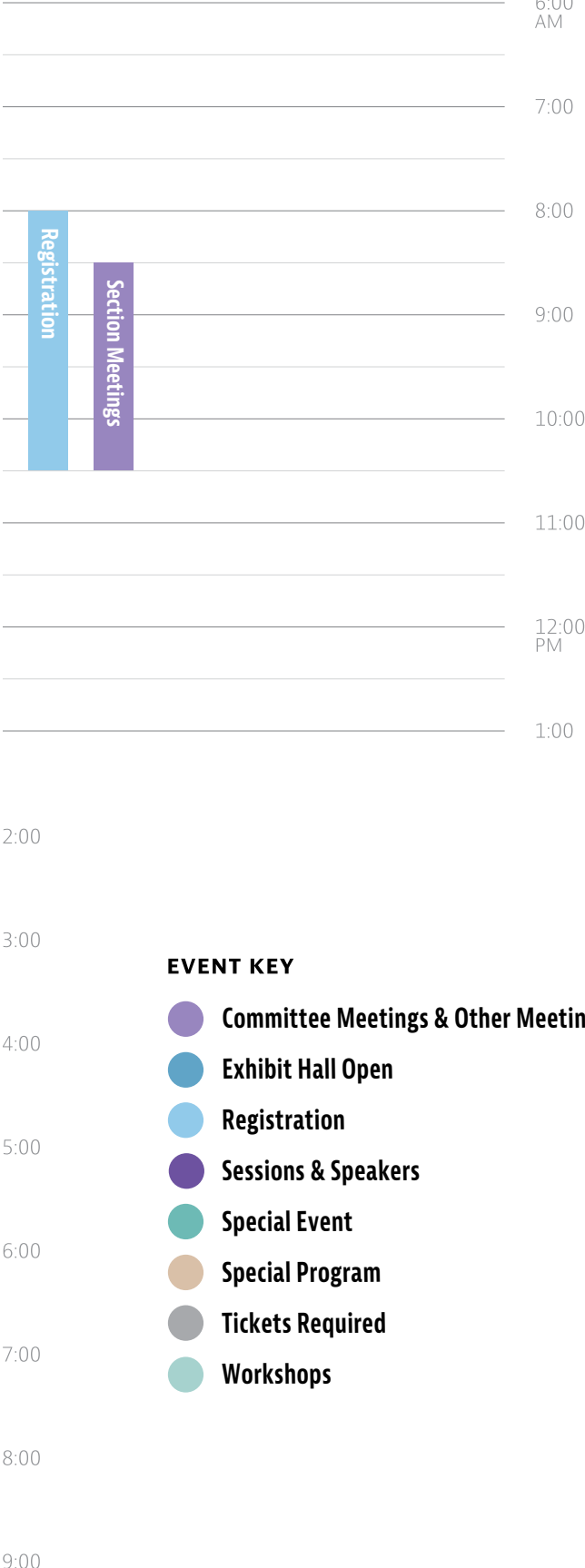
FRIDAY



SATURDAY



SUNDAY



- EVENT KEY
- Committee Meetings & Other Meetings
 - Exhibit Hall Open
 - Registration
 - Sessions & Speakers
 - Special Event
 - Special Program
 - Tickets Required
 - Workshops

Thursday, October 30

SPECIAL WORKSHOPS

(FREE)

SABER DAY: Annual SABER Midwest Meeting

8:00am – 3:30pm

Join the Society for the Advancement for Biology Education Research (SABER) for the 3rd Annual SABER Midwest meeting. This event will be co-located with NABT and will feature highlighted speakers, short talks and posters. You can attend SABER or stay for the entire NABT meeting.



IGELS Project: Catalyzing Change in the Non-Majors Bio Course

10:00am – 3:30pm

Undergraduate instructors of non-majors biology courses are invited to learn more about implementing activities and resources developed by the IGELS (Interactions in General Education Life Science) project. IGELS "Catalysts" will be introduced to the suite of IGELS resources and frameworks, including the LifeSkills guide, the Intentional Pedagogy Framework, and New models of Scientific Literacy and the Undergraduate Science Education Ecosystem.

Lunch will be provided.



Authentic Scientific Research and Data for the Classroom with Data Nuggets

12:30pm – 2:30pm

Data Nuggets are free resources, co-designed by scientists and teachers to bring authentic data and research into classrooms. They highlight the true process of science, along with any surprises along the way. In this session, co-Founder Elizabeth Schultheis, will demonstrate best practices for their use in biology classrooms.

BSCS Science Learning Presents: Using Societal Challenges as Phenomena in Three-Dimensional Units to Develop Student Agency

12:30pm – 3:30pm

Experience how BSCS's Anchored Inquiry Learning instructional model leverages complex, culturally relevant societal challenges as phenomena in three dimensional teaching and learning to support all students' learning and development of agency!



Using Societal Challenges as Phenomena in Three-Dimensional Units to Develop Student Agency

12:30pm – 3:30pm

Experience how BSCS's Anchored Inquiry Learning instructional model leverages complex, culturally relevant societal challenges as phenomena in three-dimensional teaching and learning to support all students' learning and development of agency!

HHMI Presents: Scientific Modeling with HHMI BioInteractive: Using Models to Visualize, Explain, and Predict

12:30pm – 3:30pm

Participants will explore ways to engage students in visualizing, explaining, and making predictions about phenomena using models. We will highlight Model Builder and other free BioInteractive resources. Bringing a laptop is recommended.



NCSE Presents: Scientific Literacy in the Digital Age of Misinformation

12:30pm – 3:30pm

Students are being exposed to more misinformation and disinformation about science than ever before. NCSE's DataWISE tool scaffolds key science practices and media literacy skills to guide students in critical analysis of data-based claims.



SCST Presents: Elevate Your College Science Courses

12:30pm – 3:30pm

Join SCST's interactive session as college science educators share their favorite techniques and explore strategies to

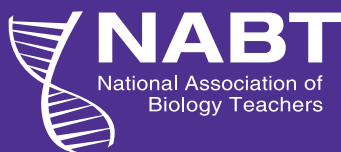
optimize instructional efficacy, college student engagement, and course enjoyment.



20 in 20 and Beyond

12:30pm – 3:30pm

Come try numerous 20-minute inquiry-based activities that are sure to engage and excite your students. You and your students will be glad you did!



2025 NABT Professional Development Conference



Friday, October 31

NABT NETWORKING BREAKFASTS

7:30am – 8:30am

You are invited to join your colleagues at a section event, meet up with friends, visit the Exhibit Hall, or find a quiet spot to get ready for the day ahead.

AP® Science Section Breakfast

Grab your breakfast and meet other AP teachers in a friendly, informal setting to share insights, ask questions, and build community. You may even get to meet some of your favorite AP colleagues in person. The breakfast includes a special presentation of the *Kim Foglia AP Biology Service Award*.



Elementary and Middle-Level (K-8) Section Breakfast

Meet up with other awesome K-8 educators at this informal networking breakfast designed to help you connect with colleagues to support our youngest scientists.

Two-Year College Section Breakfast

Join a supportive community of two-year college educators to share your strategies, your struggles, and your successes! The winners of the *Two-Year College Biology Teaching Award* and the *Professor Chan Teaching Award* will also be recognized.

High School Section Breakfast

If you teach funny Freshmen, serious Seniors, and everyone in between, you will want to grab your breakfast, grab a seat, and connect with other high school biology teachers in this informal setting.

Four-Year College & University Section Breakfast

Faculty, education researchers, graduate students, and anyone associated with four-year colleges and universities are invited to network, build community, and learn about section programs and opportunities. There will also be a special presentation of the *Four-Year College & University Section Awards*.

NABT First Timers' Meet & Greet

7:15am – 8:00am

First-time conference attendees are invited to learn more about NABT, the 2025 Professional Development Conference, and connect with other "first timers." NABT leaders and former "first timers" will also be available to answer your questions and help you make the most of your time in St. Louis.



NABT Science Disco & Halloween Party

6:00pm – 8:30pm

Get ready to dance the night away at NABT's Science Disco & Halloween Party! This unique event will feature food, fun, and friends catching up and getting down. Don't have boogie fever? You can still show up in costume and enjoy a night of games, contests, and laughs in the famous lobby of the Historic Union Station Hotel. Tickets are not needed, and everyone is welcome!

2025 NABT HONORS LUNCHEON

Saturday, November 1

11:30am – 2:00pm

\$50 Advance/\$60 Onsite

NABT is proud to honor the 2025 NABT Award Recipients during this celebratory event. We will recognize exceptional biology teachers from all levels, and everyone is welcome to join us to congratulate these remarkable professionals.

BOARD OF DIRECTORS

President: **Kirstin Milks**
 President-Elect: **Vedham Karpakakunjaram**
 Past President: **Amanda Townley**
 Secretary/Treasurer: **Jacqueline Washington**
 Director-at-Large: **Kristy Daniel**
 Director-at-Large: **Anneke Metz**
 Director/Coordinator: **Lee Ferguson**
 Director/Coordinator: **Andrew Taylor**

Executive Director: **Jaclyn Reeves-Pepin**

REGIONAL COORDINATORS

Region I (CT, ME, MA, NH, RI, VT): **Don Pinkerton**
 Region II (DE, DC, MD, NJ, NY, PA, VA): **Jennifer Jones**
 Region III (IL, IN, MI, OH, WI): **David Butler**
 Region IV (IA, KS, MN, MO, NE, ND, SD): **Andrew Taylor**
 Region V (KY, NC, SC, TN, WV): **Robin Bulleri**
 Region VI (AL, FL, GA, LA, MS, PR): **Abigail Warden**
 Region VII (AZ, AR, NM, OK, TX): **Lee Ferguson**
 Region VIII (CO, ID, MT, NV, UT, WY): **Katrina Marcos**
 Region IX (AK, CA, HI, OR, WA, Pacific Territories): **Beth Cates**
 Region X (Canadian Provinces & Territories): **Martha Schissler**

SECTION CHAIRS

NABT BioClub: **Tanya Z. Quiroz**
 AP® Life Sciences Section: **Mark Little**
 High School Section: **Ashlie Gowitzka**
 Four-Year College & University Section: **Melanie Lenahan**
 Two-Year College Biology Section: **Sayali Kukday**

COMMITTEE CHAIRS

ABT Journal Advisory Committee: **William McComas**
 Archival Committee: **Vacant**
 Awards Committee: **Kathy Van Hoeck**
 Finance Committee: **Jacqueline Washington**
 Honorary Membership Committee: **Vedham Karpakakunjaram**
 Long Range Planning Committee: **Steve Christensen**
 Informal Science Education Committee: **Jill Maroo**
 Justice, Equity, Diversity & Inclusion (JEDI): **Enya Granados & Maribel Gendreau**
 Member Resources Committee: **Kirstin Milks & David Butler**
 Nominating Committee: **Bob Melton**
 Past President Advisory Council: **Vedham Karpakakunjaram**
 Professional Development Committee: **Vacant**
 Retired Member Committee: **Dennis Gathmann**

BOARD-APPOINTED REPRESENTATIVE

Fundraising Task Force: **Lee Ferguson**
 Introductory Biology Task Force: **Anna Hiatt**
 OBTA National Coordinator: **Don Pinkerton**
 Pre-Service Teacher Advisory Committee: **Julie Angle**
 Social Media Moderators: **Carrie Jo Bucklin & Stacey Kiser**

AFFILIATE MEMBERS

Biology Teachers Association of New Jersey (**BTANJ**)
 Cleveland Regional Association of Biologists (**CRABS**)
 Colorado Biology Teachers Association (**CBTA**)
 Connecticut Association of Biology Teachers (**CTABT**)
 Delaware Association of Biology Teachers (**DABT**)
 Empire State Association of Two-Year College Biologists (**ESATYCB**)
 Illinois Association of Biology Teachers (**IABT**)
 Illinois Association of Community College Biologists (**IACCB**)
 Indiana Association of Biology Teachers (**IABT**)
 Kansas Association of Biology Teachers (**KABT**)
 Louisiana Association of Biology Teachers (**LABT**)
 Massachusetts Association of Biology Teachers (**MABT**)
 Michigan Association of Biology Teachers (**MABT**)
 Mississippi Association of Biology Educators (**MSABE**)
 Missouri Association of Biology Teachers (**MOBioTA**)
 New York Biology Teachers Association (**NYBTA**)
 South Carolina Association of Biology Teachers (**SCABT**)
 Texas Association of Biology Teachers (**TABT**)
 Tennessee Association of Biology Teachers (**TNABT**)
 Virginia Association of Biology Teachers (**VABT**)

NABT Committee Meetings

Learn more about NABT committees and the programs they support during our annual meeting on **Saturday, November 1 at 7:30AM in the Pegram Space**. All committees will meet at the same time to better enable networking and coordination.

ABT ADVISORY COMMITTEE

The ABT Advisory Committee helps ensure *The American Biology Teacher* publishes articles and highlights themes relevant to the teaching and learning of biology and life science at all levels.

William McComas, ABT Editor-in-Chief

AWARDS COMMITTEE

This committee coordinates the nomination and application process for the NABT Awards program. Committee members evaluate applications, select award recipients, and notify the honorees of their awards.

Kathy Van Hoeck, Committee Chair

INFORMAL SCIENCE COMMITTEE

This committee identifies programs, initiatives, and activities that highlight how informal and community science programs can support biology and life science instruction.

Jill Maroo, Committee Chair

JUSTICE, EQUITY, DIVERSITY, & INCLUSION (JEDI) COMMITTEE

The JEDI Committee helps develop programs and resources that address the needs of a diverse community of biology teachers and students to ensure NABT fosters an inclusive, diverse environment and builds belonging among members and groups.

Enya Granados and Maribel Gendreau, Committee Chairs

LONG-RANGE PLANNING COMMITTEE

Working with the Board of Directors and other NABT leaders, the Long-Range Planning Committee develops goals and objectives that align with NABT's Strategic Plan.

Steve Christensen, Committee Chair

MEMBER RESOURCES COMMITTEE

This committee reviews resources, services, incentives, and program recommendations to assist with membership development and outreach.

Kirstin Milks and David Butler, Committee Chairs

NOMINATING COMMITTEE

Working with NABT members, this committee recruits individuals to serve in leadership positions within the association, including identifying and evaluating candidates for NABT elections.

Bob Melton, Committee Chair

OBTA Directors & Regional Coordinators

Help NABT recognize outstanding biology teachers in your state! This meeting will include updates on the NABT Outstanding Biology Teacher Award (OBTA).

Professional Development Committee

This committee helps evaluate and implement NABT's professional development activities, including reviewing the great sessions submitted for the NABT Professional Development Conference.

Committee Chair to be Named

Retired Members Committee

"Post Classroom Professionals" are a key part of the NABT community and continue to volunteer, serve as mentors, and promote different initiatives. Learn more about staying involved.

Dennis Gathmann, Committee Chair

Social Media Committee

Utilizes social media outlets to broaden the NABT Community and promote programs that support biology and life science teachers.

Carrie Jo Bucklin & Stacey Kiser, Committee Chairs

BioClub Student Awards

Ethen Hassanali

Stouffville District Secondary School,
Whitchurch-Stouffville, ON

Addison Hasty

Central Carolina Technical College,
Sumter, SC

Outstanding student members of a NABT BioClub are eligible for this textbook scholarship, with one student from a BioClub high school chapter and one student from a community college chapter being eligible each year.

Sponsored by Carolina Biological Supply Company

Biology Educator Leadership Scholarship (BELS)

Stefanie Ribecca

Hopewell Valley Central High School,
Pennington, NJ

The Biology Educator Leadership Scholarship (BELS) supports teachers who are furthering their education in the life sciences or science education. The award recipient is a practicing educator who has been accepted into a graduate program at a Masters or Doctoral level.

Sponsored by NABT Member Donations

Distinguished Service Award

Jackie Joyner-Kersee

JJK Foundation, East St Louis, IL

Established in 1988 to commemorate our 50th anniversary, this award is presented to a nationally recognized individual who has made major contributions to biology education through research, writing, and teaching.

Sponsored by the National Association of Biology Teachers

Ecology/Environmental Science Teaching Award

Kristin Shapiro, EdD

Florence Jr/Sr High School, Florence, CO

This award recognizes a middle or high school teacher who has successfully developed and demonstrated an innovative approach in the teaching of ecology/environmental science and has carried their commitment to the environment into the community.

Sponsored by Vernier Software and Technology

Evolution Education Award

Molly Selba, PhD

University of Maryland Eastern Shore
Princess Anne, MD

This award recognizes innovative classroom teachers and their efforts to promote the accurate understanding of biological evolution within the larger community.

Sponsored by BSCS Science Learning & NCSE

Excellence in Encouraging JEDI Award

Corrinne Zimmerman

Homewood-Flossmoor High School
Tinley Park, IL

The NABT Excellence in Encouraging Justice, Equity, Diversity, and Inclusion (JEDI) Award recognizes efforts to promote equity in life science education. The recipient demonstrates a passion for JEDI through their teaching while also identifying successful strategies that increase enthusiasm for biology.

Sponsored by National Association of Biology Teachers

Four-Year College & University Section Biology Teaching Award

Stefanie Leacock, PhD

Lyon College School of Dental Medicine,
Batesville, AR

This award recognizes creativity and innovation in undergraduate biology teaching, including curriculum design, teaching strategies, and laboratory utilization that have been implemented and demonstrated to be effective.

Sponsored by NABT's Four-Year College & University Section

Four-Year College & University Section Research in Biology Education Award

Cynthia Brame, PhD

Vanderbilt University, Nashville, TN

Recognizing innovation in research that furthers our understanding of undergraduate biology teaching, this award is given to an individual who displays creativity in scholarship and research in biology education.

Sponsored by NABT's Four-Year College & University Section

Genetics Education Award

Crystal McDowell

Greenbrier High School, Evans, GA

This award recognizes innovative, student-centered classroom instruction that promotes the understanding of genetics and its impact on inheritance, health, and biological research.

Sponsored by GSA and National Association of Biology Teachers

Honorary Membership

Lindsey Fields

Butler Community College, Wichita, KS

The highest honor from the association, the Honorary Membership recognizes those individuals who have achieved distinction in teaching, research, or service in the biological sciences and designates them lifetime member of NABT.

Sponsored by the National Association of Biology Teachers

Jennifer Pfannerstill Travel Award

Kyla Hooker

Los Alamos High School
Los Alamos, NM

Established to honor the memory of Jennifer Pfannerstill, this scholarship supports a teacher who has demonstrated a commitment to personal and professional development by helping that individual attend the NABT Conference for the first time.

Sponsored by NABT, BFW Publishers, and Donations

The Kim Foglia AP[®] Biology Service Award

Joanne Jezequel, EdD

Kennesaw Mountain High School,
Kennesaw, GA

This Award recognizes an AP[®] Biology teacher who displays a willingness to share materials, serves as a mentor to both students and professional colleagues, creates an innovative and student centered classroom environment, and exemplifies a personal philosophy that encourages professional growth as a teacher and member of the AP[®] community.

Sponsored by the National Association of Biology Teachers

Outstanding New Biology Teacher Achievement Award

Lia Kim

James Logan High School, Union City, CA

This award recognizes outstanding teaching in grades 7-12 by a "new" biology/life science instructor within their first three years of teaching biology who has developed an original and outstanding program or technique while also making a contribution to the profession at the start of their career.

Sponsored by the National Association of Biology Teachers

Prof. Chan Two-Year College Award for the Engaged Teaching of Biology

Isaac Stewart

Black Hawk College, Moline, IL

This award recognizes a two-year college faculty member who has successfully developed and demonstrated an innovative, hands-on approach in the teaching of biology and has carried their commitment into the community to promote biology education.

Sponsored by Sarah McBride and John Melville

The Ron Mardigian Biotechnology Teaching Award

Maribel Gendreau, PhD

Hampton Roads Academy, Newport News, VA

This award recognizes a secondary school teacher or undergraduate college biology instructor who demonstrates outstanding and creative teaching of biotechnology by incorporating active laboratory work in the classroom.

Sponsored by Bio-Rad Laboratories

Two-Year College Biology Teaching Award

Tammi Duncan-Teller, PhD

University of New Mexico-Valencia,
Albuquerque, NM

This award recognizes a two-year college biology educator who employs new and creative techniques to demonstrate excellence in teaching and scholarship through publications, teaching strategies, curriculum design, or laboratory utilization.

Sponsored by NABT's Two-Year College Section and Cell Zone, Inc.



Outstanding Biology Teacher Award

For over 50 years, the National Association of Biology Teachers has been committed to recognizing outstanding biology teachers.

THE OUTSTANDING BIOLOGY TEACHER AWARD IS PROUDLY SPONSORED BY:

CAROLINA®
www.carolina.com

Other consideration provided by Bio-Rad Laboratories, the Botanical Society of America, and miniPCR.

THANK YOU TO OBTA DIRECTORS

NABT would like to thank our OBTA Directors, whose ongoing commitment to this program has helped NABT present the award to thousands of outstanding teachers.



OBTA Honorees 2025

REGION I

Tonya Prentice

Tremont Consolidated School
Bass Harbor, ME

Kaitlin Dinert

Abbott Lawrence Academy
Lawrence, MA

Peter Dumont

Newfound High School
Bristol, NH

REGION II

Kimberly Burton

Archbishop Curley High School
Baltimore, MD

Madelyn Lin

William Cullen Bryant High School
Long Island City, NY

Laura Himler

Upper Merion Area High School
King of Prussia, PA

Stefanie Ribecca

Hopwell Valley Central High School
Pennington, NJ

Kirsten Salonga

Justice High School
Falls Church, VA

REGION III

Hannah Shepherd

New Washington Middle/High School
New Washington, IN

Roger Blevins

Huron High School
Huron, OH

Shane Cullian

Badger High School
Lake Geneva, WI

REGION IV

Gregory Baror

Central Campus
Des Moines, IA

Robin Dennis

Olathe South High School
Olathe, KS

Jessica Popescu

Herndon Career Center
Raytown, MO

REGION V

Myra Cowan

Mason County High School
Maysville, KY

Benjamin Davis

Robbinsville High School
Robbinsville, NC

Richard McKown

Huntington High School
Huntington, WV

REGION VI

Suzanne Mathew

Hoover High School
Hoover, AL

Brittany Moss

Harris County High School
Hamilton, GA

Robin Cobb

Eva Legard Center
Baton Rouge, LA

Megan Brooks

West Harrison High School
Gulfport, MS

REGION VII

Cristi Sims

Arizona College Prep High School
Chandler, AZ

Geizi Dejka

San Juan College High School
Farmington, NM

Laura Robinette Minor

St. Michael's Prep
Austin, TX

REGION VIII

Jean Placko

Bozeman High School
Bozeman, MT

Erin Capra

West High School
Salt Lake City, UT

Deborah Jensen

Rock Springs High School
Rock Springs, WY

PAST PRESIDENTS & CONFERENCE LOCATIONS

2024 Amanda Townley, Anaheim, CA	1994 Barbara Schulz, St. Louis, MO	1964 Ted F. Andrews, Boulder, CO w/AIBS
2023 Tara Jo Holmberg, Baltimore, MD	1993 Ivo E. Lindauer, Boston, MA	1963 Philip R. Fordyce, U of MA, Amherst, MA w/AIBS
2022 Chris Monsour, Indianapolis, IN	1992 Alton L. Biggs, Denver, CO	1962 Muriel Beuschlein, Corvallis, OR w/AIBS
2021 Julie Angle, Atlanta, GA	1991 Joseph D. McInerney, Nashville, TN	1961 Paul V. Webster, Denver, CO w/AAAS
2020 Sharon Guskys, Online Conference	1990 Nancy V. Ridenour, Houston, TX	1960 Howard E. Weaver, New York, NY w/AAAS
2019 Sherry Annee, Chicago, IL	1989 John Penick, San Diego, CA	1959 Paul Klinge, Chicago, IL w/AAAS
2018 Elizabeth Cowles, San Diego, CA	1988 Jane Abbott, Chicago, IL	1958 Irene Hollenbeck, Washington, D.C. w/AAAS
2017 Susan Finazzo, St. Louis, MO	1987 Donald S. Emmeluth, Cincinnati, OH	1957 John Breukelman, Indianapolis, IN w/AAAS
2016 Bob Melton, Denver, CO	1986 George S. Zahrobsky, Baltimore, MD	1956 John P. Harrold, New York, NY w/AAAS
2015 Jane Ellis, Providence, RI	1985 Thomas R. Mertens, Orlando, FL	1955 Bro. H. Charles Severin, Atlanta, GA w/AAAS
2014 Stacey Kiser, Cleveland, OH	1984 Marjorie King, Purdue Univ., IN	1954 Arthur J. Baker, Berkeley, CA w/AAAS
2013 Mark Little, Atlanta, GA	1983 Jane Butler Kahle, Philadelphia, PA	1953 Leo F. Hadsall, Boston, MA w/AAAS
2012 Donald French, Dallas, TX	1982 Jerry Resnick, Detroit, MI	1952 Harvey E. Stork, St. Louis, MO w/AAAS
2011 Dan Ward, Anaheim, CA	1981 Edward J. Kormondy, Las Vegas, NV	1951 Richard L. Weaver, Philadelphia, PA w/AAAS
2010 Bunny Jaskot, Minneapolis, MN	1980 Stanley D. Roth, Boston, MA	1950 Betty L. Wheeler, Cleveland, OH w/AAAS
2009 John M. Moore, Denver, CO	1979 Manert Kennedy, New Orleans, LA	1949 Ruth A. Dodge, New York, NY w/AAAS
2008 Todd Carter, Memphis, TN	1978 Glen E. Peterson, Chicago, IL	1948 Howard A. Michaud, Washington, D.C. w/AAAS
2007 Pat Waller, Atlanta, GA	1977 Jack L. Carter, Anaheim, CA	1947 E. Laurence Palmer, Chicago, IL w/AAAS
2006 Toby Horn, Albuquerque, NM	1976 Haven Kolb, Denver, CO	1946 Prevo L. Whitaker, Boston, MA w/AAAS
2005 Rebecca E. Ross, Milwaukee, WI	1975 Thomas J. Cleaver, Portland, OR	1945 Helen Trowbridge, St. Louis, MO w/AAAS
2004 Betsy Ott, Chicago, IL	1974 Barbara K. Hopper, New York, NY	1944 Merle A. Russell, No Meeting
2003 Catherine W. Ueckert, Portland, OR	1973 Addison E. Lee, St. Louis, MO	1943 Merle A. Russell, No Meeting
2002 Brad Williamson, Cincinnati, OH	1972 Claude A. Welch, San Francisco, CA	1942 Homer A. Stephens, No Meeting
2001 Ann S. Lumsden, Montreal, QC, Canada	1971 H. Bentley Glass, Chicago, IL	1941 George W. Jeffers, Dallas, TX w/AAAS
2000 Phil McCrea, Orlando, FL	1970 Robert E. Yager, Denver, CO	1940 Malcolm D. Campbell, Philadelphia, PA w/AAAS
1999 Richard D. Storey, Ft. Worth, TX	1969 Burton E. Voss, Philadelphia, PA	1939 Myrl C. Lichtenwalter, Columbus, OH w/AAAS
1998 VivianLee Ward, Reno, NV	1968 Jack Fishleder, Anaheim, CA	1938 First Formal Meeting*, Richmond, VA w/ AAAS
1997 Alan McCormack, Minneapolis, MN	1967 William V. Mayer, New York, NY w/AAAS	
1996 Elizabeth Carvellas, Charlotte, NC	1966 Arnold B. Grobman, Washington, D.C. w/AAAS	
1995 Gordon E. Uno, Phoenix, AZ	1965 L. S. McClung, U of CA, Berkeley w/AAAS	

* NABT established on July 1, 1938 in New York City, NY

HONORARY MEMBERS

2024 Donald French, Mark Little	2000 Elizabeth Carvellas	1977 Addison E. Lee
2023 William F. McComas	1999 NOT AWARDED	1976 Paul DeHart Hurd
2022 John A. Jungck	1998 Ivo Lindauer	1975 Garrett Hardin, Stanley E. Williamson
2021 Patsy Peebles	1997 Sam Rhine	1974 H. Seymour Fowler
2020 Bob Melton	1996 Kenneth S. House	1973 William V. Mayer
2019 Dennis Gathmann	1995 Joseph D. Novak	1972 Chester A. Lawson, Paul E. Klinge, Robert L. Gantert
2018 Michael Sipes	1994 Nancy V. Ridenour, Alton L. Biggs	1971 NOT AWARDED
2017 John M. Moore	1993 George S. Zahrobsky	1970 NOT AWARDED
2016 Margaret (Betsy) Ott	1992 Jon R. Hendrix	1969 Arnold B. Grobman
2015 Sharon Radford	1991 Robert E. Yager	1968 NOT AWARDED
2014 Jay Labov	1990 Jane Butler Kahle	1967 NOT AWARDED
2013 Todd Carter	1989 Joseph D. McInerney	1966 NOT AWARDED
2012 Maura Flannery	1988 Thomas Mertens, Marjorie King	1965 John Breukelman, H. Bentley Glass, George W. Beadle, Paul B. Sears, Brother H. Charles Severin
2011 Louisa Stark	1987 Floyd Nordland	1964 E. Laurence Palmer, Hermann J. Muller, Roger Tory Peterson, Oscar Riddle, Helen Irene Battle
2010 Patricia Waller, Brad Williamson	1986 Donald S. Dean	
2009 NOT AWARDED	1985 Stanley Weinberg	
2008 Donald Cronkite	1984 Jack Carter, Samuel Postlethwait	
2007 William H. Leonard	1983 Manert Kennedy	
2006 Terry Hufford	1982 Harold "Sandy" Wiper, Jerry P. Lightner	
2005 Randy Moore, Eugenie Scott	1981 Sophie Wolfe	
2004 John Penick	1980 Sister M. Gabrielle, Ted F. Andrews, Sister Marian Catherine McGrann	
2003 Donald Emmeluth		
2002 Leonard Blessing	1979 Ingrith Olsen	
2001 Gordon E. Uno	1978 John A. Moore	

NABT DISTINGUISHED SERVICE AWARD RECIPIENTS

2024 *NOT AWARDED*

2023 Lee Berger, Explorer in Residence at National Geographic, Johannesburg, South Africa

2022 Michael Osterholm, CIDRAP, University of Minnesota, Minneapolis, MN

2021 Jeff Corwin, Marshfield, MA

2020 *NOT AWARDED*

2019 Bonnie Bassler, Princeton University, Princeton, NJ

2018 Ed Yong, The Atlantic, Washington, D.C.

2017 May Berenbaum, University of Illinois Urbana-Champaign, Urbana, IL

2016 Temple Grandin, Colorado State University, Fort Collins, CO

2015 Carl Zimmer, Yale University, New Haven, CT

2014 The Lacks Family (descendents of Henrietta Lacks), Baltimore, MD

2013 Rita R. Colwell, University of Maryland College Park and Johns Hopkins University Bloomberg School of Public Health, College Park, MD

2012 Michael Pollan, UC Berkeley Graduate School of Journalism, Berkeley, CA

2011 Neil Shubin, University of Chicago, Chicago, IL

2010 Richard Dawkins, The Richard Dawkins Foundation for Reason and Science, Falcon, CO

2009 Mario Capecchi, University of Utah, Salt Lake City, UT

2008 Ken Miller, Brown University, Providence, RI

2007 Sean Carroll, University of Wisconsin — Madison, Madison, WI

2006 Shirley Malcom, AAAS, Washington, D.C.

2005 James A. Thompson, University of Wisconsin-Madison, Madison, WI; and Nina Leopold Bradley, Aldo Leopold Foundation, Baraboo, WI

2004 Barbara Bancroft, RN, CPP Associates, Inc., Chicago, IL

2003 Roberta Pagon, M.D., Children's Hospital & Regional Medical Center, Seattle, WA

2002 Thomas E. Lovejoy, The H. John Heinz III Center for Science, Economics and the Environment, Washington, D.C.

2001 E.O. Wilson, Harvard University, Cambridge, MA

2000 Roger and Deborah Fouts, Chimpanzee and Human Communication Institute, Ellensburg, WA

1999 Jack Horner, Museum of the Rockies, Bozeman, MT

1998 Leroy Hood, University of Washington, Seattle, WA

1997 Neal Lane, National Science Foundation, Washington, D.C.; and Donald Kennedy, Stanford University, Palo Alto, CA

1996 Francis Collins, National Institutes of Health, Bethesda, MD

1995 Carl Djerassi, Stanford University, Palo Alto, CA

1994 Bruce Alberts, National Academy of Sciences, Washington, D.C.

1993 Nancy S. Wexler, College of Physicians and Surgeons of Columbia University, New York State Psychiatric Institute, New York, NY

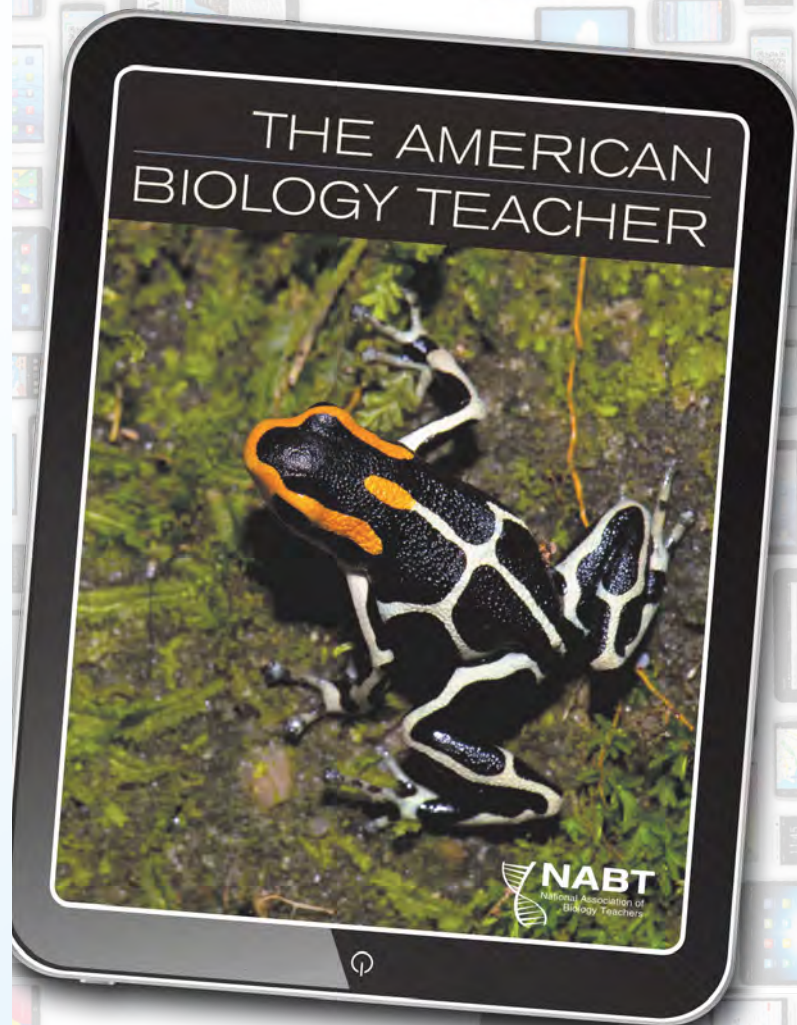
1992 Paul R. Ehrlich, Stanford University, Palo Alto, CA

1991 Stephen Jay Gould, Harvard University, Cambridge, MA

1990 Peter Raven, Missouri Botanical Garden, St. Louis, MO

1989 Stanley Cohen, Stanford University, Palo Alto, CA

1988 Lynn Margulis, University of Massachusetts, Boston, MA; and James D. Watson, Cold Spring Laboratory, Cold Spring Harbor, NY



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NABT
National Association of
Biology Teachers

Thursday

October 30



GENERAL SESSION SPEAKER

Richard B. Katskee, JD
 Assistant Clinical Professor of Law and Director, Appellate Litigation Clinic
 Duke University School of Law
 Durham, NC

Richard B. Katskee, JD, is Assistant Clinical Professor of Law and Director of the Appellate Litigation Clinic at the Duke University School of Law. Previously, Richard was Legal Director at Americans United for Separation of Church and State. He represented the parent-plaintiffs in their successful challenge to the inclusion of intelligent design creationism in the public school biology curriculum in *Kitzmiller v. Dover Area School District*. And in *Kennedy v. Bremerton School District*, he represented in the U.S. Supreme Court the Washington school district that sought to protect the students against coercive coach-led prayers at high-school football games.

Richard also served as Deputy Director of the Program Legal

Group in the U.S. Department of Education's Office for Civil Rights, where he led federal policymaking to enforce the laws barring race, sex, and disability discrimination in America's schools, colleges, and universities, and he was a longtime member of the Supreme Court & Appellate practice at Mayer Brown LLP in Washington, D.C. He taught First Amendment law at the American University Washington College of Law and professional and political ethics at Harvard's John F. Kennedy School of Government and Harvard College. He received his J.D. from Yale Law School, his A.M. in political science from Harvard University, and his A.B. with highest distinction and high honors in political science from the University of Michigan.

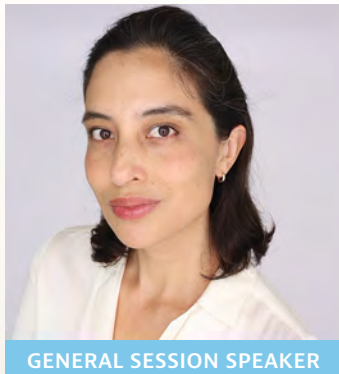


GENERAL SESSION SPEAKER

Kenneth R. Miller, PhD
 Professor Emeritus of Molecular, Cell Biology and Biochemistry
 Brown University
 Providence, RI

Kenneth R. Miller, PhD, is Emeritus Professor of Biology at Brown University and President of the National Center for Science Education. He attended Brown as an undergraduate and earned a PhD in Cell Biology at the University of Colorado. His research on cell membranes has been published in journals such as *Cell*, *Nature*, *The Journal of Cell Biology*, and *Scientific American*. He is coauthor, along with Joseph S. Levine, of biology textbooks used by millions of high school students. His popular books on evolution include *Finding Darwin's God—A Scientist's Search for Common Ground between God and Evolution*, and most recently *The*

Human Instinct – How We Evolved to have Reason, Consciousness, and Free Will. He has been outspoken in the public defense of evolution and served as lead witness in the landmark *Kitzmiller v. Dover* (2005) trial on “intelligent design” and evolution. His honors include the Public Service Award from the American Society for Cell Biology, the Distinguished Service Award from the National Association of Biology Teachers, the AAAS Award for Public Engagement with Science, the Laetare Medal from Notre Dame, and in 2023, the McGovern Science and Society Award from Sigma Xi, the scientific honor society.



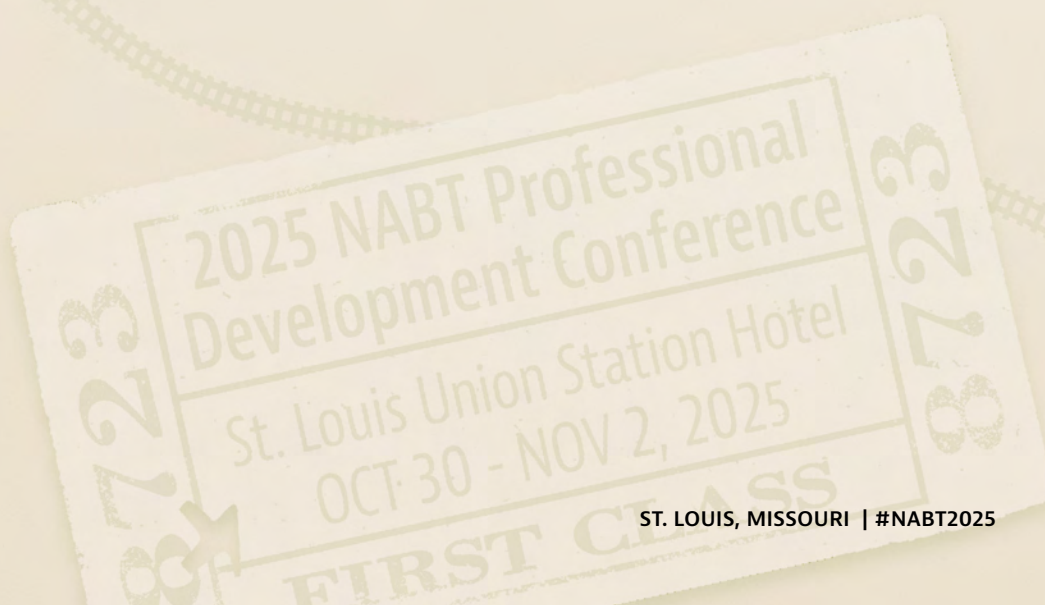
GENERAL SESSION SPEAKER

Myrna Perez, PhD

Associate Professor, College of Arts & Sciences
Ohio University
Athens, OH

Myrna Perez, PhD, is an Associate Professor at Ohio University, jointly appointed in Classics & Religious Studies and in Women's, Gender & Sexuality Studies. She received her PhD from the Department of the History of Science at Harvard University. She was a Postdoctoral Fellow at the Center for Women's, Gender and Sexuality Studies at Rice University, and has been a fellow at the Harvard Divinity School, and in the Darwin Correspondence Project at Cambridge University. She is the co-editor of *Critical Approaches to Science and Religion* (Columbia University Press, 2023) and author of *Criticizing Science: Stephen Jay Gould and the Struggle for American Democracy* (Johns Hopkins University Press, 2024). Her audio lecture series "The History of Science, Sexuality and Medicine" is available via Audible and Apple Books.

Myrna was a featured contributor of the 2023 AAAS documentary "Science as Mastery: A Story of Race and Power." Her work has been supported by the Templeton World Charity Foundation, the Schlesinger Library at Radcliffe, the American Philosophical Society, the Library Company of Philadelphia, the Huntington Library, and the Charles Warren Center for Studies in American History at Harvard University.



Friday

October 31



GENERAL SESSION SPEAKER

Arpita Bose, PhD

Associate Professor of Biology
Washington University in St. Louis
St. Louis, MO

Arpita Bose, PhD, is an Associate Professor in the Department of Biology and the Department of Earth, Environmental, and Planetary Sciences at Washington University in St. Louis. Her lab uses an interdisciplinary approach to study microbial metabolisms and their influence on biogeochemical cycling. Her lab then applies the knowledge they gain to generate new ways of addressing issues such as the energy crisis, pollution, human health, sustainability, the circular economy, and climate action.

Arpita has a BSc in Microbiology from Delhi University, an MTech in Biotechnology from the All India Institute of Medical Sciences, and an MS and PhD in Microbiology, both from the University of Illinois at Urbana-Champaign. She is a L'Oreal USA and AAAS Women in Science Fellow, a Packard Fellow, a Fulbright Scholar, and an Anant Fellow for Climate Action.

Thank You

TO THE MANY VOLUNTEERS

WHO WORKED SO HARD TO MAKE THE 2025 CONFERENCE A SUCCESS!



Saturday

November 1



GENERAL SESSION SPEAKER

Jackie Joyner-Kersey

Olympian and
Founder, Jackie Joyner-Kersey
Foundation
East St. Louis, MO

See session details on page 57



Jackie Joyner-Kersey, winner of six Olympic medals, is considered by ESPN to be one of the “50 Greatest Athletes of All Time,” and was voted Female Athlete of the 20th Century by *Sports Illustrated for Women*. She is the first woman to win back-to-back gold medals in the heptathlon, the first African-American woman to win an Olympic medal in the long jump, and the first woman to score 7,000 points in the heptathlon.

Born and raised in East St. Louis, Jackie is committed to ensuring that all children have access to high-quality after-school programs, safe recreational places within their communities, and caring adults to help them achieve their dreams. Through tireless work and a commitment to ensuring every youth is given the opportunity to achieve greatness, the Jackie Joyner-Kersey Foundation has grown to become a safe haven and learning-

rich environment for area youth, where the challenges and limitations of one of America’s most notoriously deadly and impoverished cities will never define where a child can go, or who they can become.

Jackie is the heart and soul of the JJK Foundation and serves as living proof that kids in East St. Louis can dare to dream big, and if they have the drive and determination, they can accomplish anything they desire.

**NABT is proud to honor
Jackie Joyner-Kersey
with the 2025 NABT
Distinguished Service Award.**



NCSE National Center for
Science Education

THE HUMAN STORY ... IT GOES



Journey into Darkness: The Allegory of the Cave

Rick and Lindsay Hunter,
University of the Witwatersrand

Rick Hunter will share the amazing story of his co-discovery of the first-known fossils of *Homo naledi* and later exploration in the Rising Star cave system. Lindsay Hunter will discuss her participation in the initial excavation and how a diminutive human ancestor challenged established palaeoanthropological views and practices in a big way.

NCSE TEACHER WORKSHOP: The Human Story

Wendy Johnson, Britt Miller, NCSE

We will share classroom-ready resources that present the scientific evidence for human evolution as students engage with the intriguing question, *What does it mean to be human?*



Join us for a FREE, online version of “Journey into Darkness” in February in honor of Darwin Day.

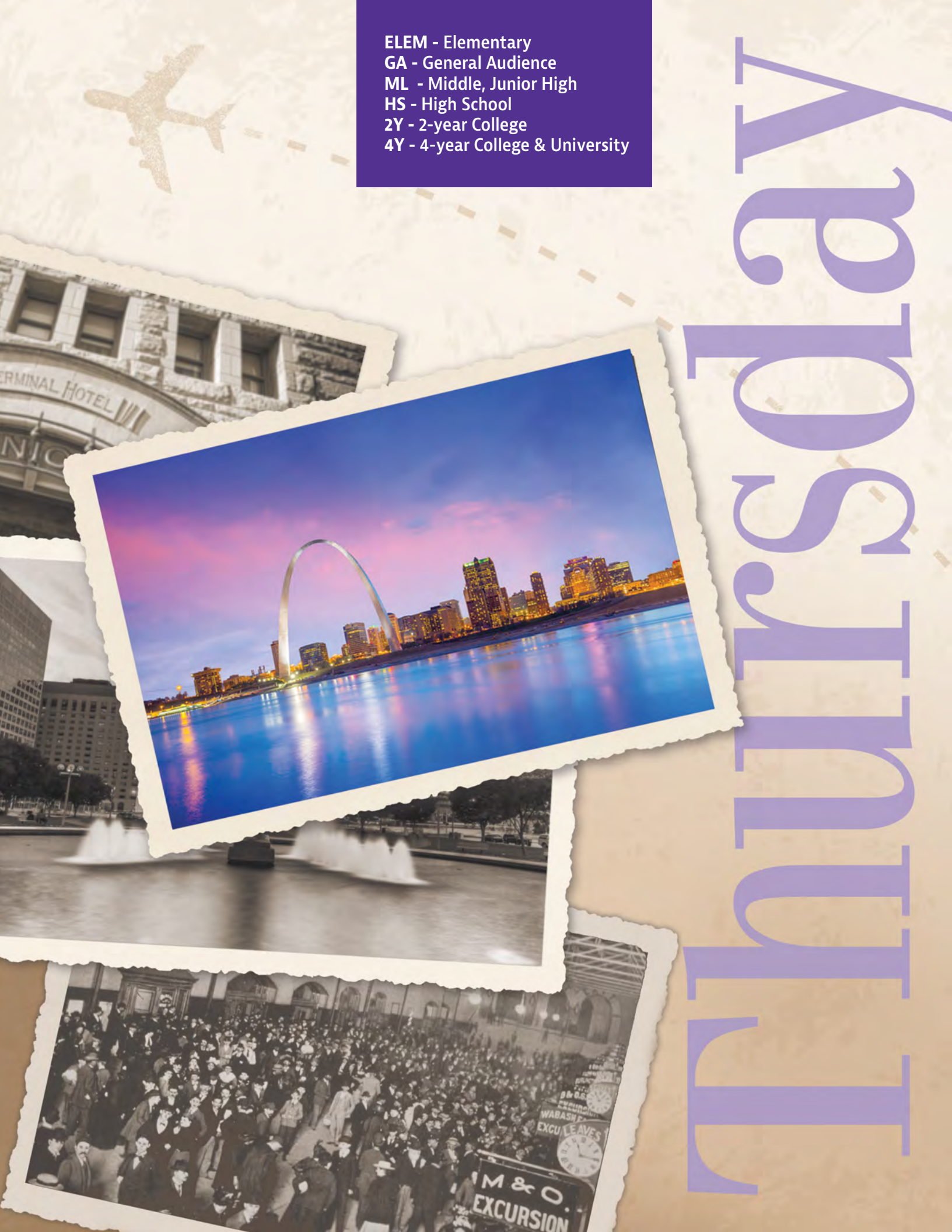
Celebrate Charles Darwin’s birthday as Rick and Lindsay Hunter reprise their NABT presentation.

Join the NCSEteach email list
and stay tuned for details on
how to register for the event.



ELEM - Elementary
GA - General Audience
ML - Middle, Junior High
HS - High School
2Y - 2-year College
4Y - 4-year College & University

Travelers Day



SABER DAY

Annual Midwest Meeting 2025

8:00AM – 3:30PM
Midway Suite 5 ·
Instructional Strategies ·
Special Event (All Day) ·
2Y, 4Y, GA

8:00AM - 9:15AM

Welcome Address

Kris Callis-Duehl and Ruth Kaggwa
Asiimwe, Co-Chairs SABER
MIDWEST, Donald Danforth Plant
Science Center, St. Louis, MO

Keynote Address: The Power of Identity Play: Expanding Possibilities for Science Identity Studies



This talk traces the shift in science identity research from “identity work” to “identity play.” Identity work focuses on “can-I-be” questions—

whether learners can be recognized as legitimate members of a science community. While useful for designing inclusive environments, this framing often reinforces narrow ideas of what it means to “be a biologist.”

Identity play, by contrast, emphasizes experimentation, imagination, and flexibility in self-making. It encourages youth to explore provisional “let-me-see” identities that expand possible futures and bring joy to learning. Because academic settings can feel high-stakes, youth often lack safe spaces to try on new roles. Identity play offers an analytic lens for studying and supporting this reinvention. In this talk, I share examples from middle school, outdoor, place-based learning, along with design strategies and recommendations for biology educators.

Heidi Carlone is the Katherine Johnson Chair of Science Education at Vanderbilt University in the Peabody College of Education and Human Development. She has been engaged in science identity studies for over two decades. Along with Angela Johnson, she developed an analytic framework of science identity (2007) that continues to be highly cited today. Since then, she has been engaged in studying and designing for disciplinary identities in various K-16 settings, including physics, K-16 science, field science, and place-based learning.

9:25AM – 11:20AM

Session 1: Research- Based Learning and Student Engagement

Mapping First-Year Transitions: A Mixed-Methods Latent Analysis of Reflective Letters from Undergraduate Biology Students (Research Talk)

Helen Wagner Coello, Florida
International University, Miami, FL

Active Learning Through Reflection Journals in Introductory Biology (Practitioner Talk)

Christel Whitehead, University of Alabama
at Birmingham, Birmingham, AL

Is Teaching Research Different? Specialized knowledge used by Course-based Undergraduate Research Experience Instructors (Research Talk)

Alexandra Cooper, University of Georgia,
Athens, GA

Exploring Faculty Perceptions of Active Learning in Undergraduate Biology (Research Talk)

Jeremy Hsu, Chapman
University, Orange, CA

Two Interlinked Course-based Undergraduate Research Experiences (CUREs) to Support the Development of Marketable Skills in Plant Sciences and Encourage Student Retention in STEM Fields (Practitioner Talk)

Csengele Barta, Missouri Western State
University, Saint Joseph, MO

NSF Funding: Current Climate and New Priorities (Policy Talk)

Olivia Long, University of Pittsburgh
at Greensburg & Former NSF Rotating
Program Director, Pittsburgh, PA

11:20AM – 12:00PM**Lunch Break****12:00PM - 2:00PM****Session 2: Understanding and Supporting Student Outcomes****An Exploration of Factors Contributing to STEM Career Attainment in Former STEM Intervention Program Participants (Research Talk)**

Amanda Surman, Syracuse University, Syracuse, NY

Lost in Transcription: Drawings on Biology Exam "Cheat Sheets" Reveal Student Misunderstandings about Diagrams of DNA (Research Talk)

Crystal Uminski, Towson University, Towson, MD

The impact of Cognitive Wrappers on Self-Efficacy and Metacognition among Community College Non-Biology Majors (Practitioner Talk)

Ranya Taqieddin, Saint Charles Community College, Cottleville, MO

Assessing the impact of open science in the classroom on student learning outcomes and attitudes (Practitioner Talk)

Kaitlyn Casimo, The Allen Institute, Seattle, WA

Impacts of a student-teacher-scientist partnership (STSP) program on student motivation to study plants (Research Talk)

Catrina Adams, Botanical Society of America, St. Louis, MO

The Quiet Ones Matter: A Four-Strategy Focus to Enhance Accessible Engagement and Participation in the Classroom (Practitioner Talk)

Sam Ridgway, Clemson University, Clemson, SC

2:10PM – 3:30PM**Session 3: Advancing Inclusive and Equitable STEM Learning****Academic Wellbeing and Burnout: Developing Data-Driven Strategies and Support for Sustainable Work-Life Balance (Research Talk)**

Jana Marcette, Montana State University, Billings, MT

Navigating Disclosure: How Does Context Affect the Decisions of Neurodivergent STEM Students During Group Work? (Research Talk)

Mariel Pfeifer, University of Mississippi, University, MS

Invisible: Navigating Academia and the Classroom as an AuDHD Person with Disabilities (Research Talk)

Amanda Goodwin, University of Mississippi, University, MS

Inclusive Life Science Curriculum can Shift Student Attitudes and Reduce Bio Essentialist Thinking (Research Talk)

Charlie Blake, Southern Illinois University Edwardsville, Edwardsville, IL

SABER Midwest 2025 Survey**Thank you for attending SABER Midwest!**

Please fill out the following survey at the end of your SABER Midwest experience. We thank you for your responses.

Access the survey here:

https://survey.iad1.qualtrics.com/jfe/form/SV_czG9QPSbkf2erMG

Or on this QR Code here:



FIELD TRIP OPPORTUNITIES

St. Louis Aquarium

Your journey through the St. Louis Aquarium starts along a freshwater river and the shallow waters of a salt marsh, then moves into the deep, dark abyss of the open ocean. Browse our galleries to see what's in store for you when you spend an afternoon at the most unique indoor attraction in St. Louis!

Purchase discounted tickets with discount code **NABT20** at www.stlouisaquarium.com, and head over to the Aquarium (through Midway) at **9:00AM, 11:00AM or 1:00PM for a special tour.**

8:00AM - 3:30PM

1794-120511 SABER DAY: Annual SABER Midwest Meeting

Midway Suite 5 • Instructional Strategies • Special Event (All Day) • 2Y, 4Y, GA

Join the Society for the Advancement of Biology Education Research (SABER) for the 3rd Annual SABER Midwest meeting. This event will be co-located with NABT and will feature highlighted speakers, short talks, and posters. You can attend SABER or stay for the entire NABT meeting.

A complete program description is available on page 24.

10:00AM - 3:30PM

1794-117634 Catalyzing Change in the Non-Majors Bio Course

Midway Suite 3 & 4 • Instructional Strategies • Special Workshop (All Day) • 2Y, 4Y

Undergraduate instructors of introductory non-majors' biology courses are invited to this workshop to learn more about implementing activities and resources developed by the IGELS (Interactions in General Education Life Science) project. IGELS "Catalysts" will be introduced to the suite of IGELS resources and frameworks, including the *LifeSkills guide*, the Intentional Pedagogy Framework, and new models of *Scientific Literacy* and the *Undergraduate Science Education Ecosystem*. This workshop will provide workshop participants an opportunity to reflect on their course syllabus and develop an action plan for using the IGELS resources with the help of IGELS colleagues. Additionally, interested participants will be provided mentoring and some financial support to implement IGELS resources in their course(s).

Bryan Dewsbury, Florida International University, Miami, FL; Dayna DeFeo, University of Alaska - Anchorage, Anchorage, AK; Sam Donovan, BioQUEST Curriculum Consortium, Pittsburgh, PA; Karla Fuller, Guttman Community College, New York, NY; Tamar Goulet, University of Mississippi, University, MS; Gabriela Hamerlinck, University of Florida, Gainesville, FL; Elizabeth Harrison, Kennesaw State University, Kennesaw, GA; Melanie Lenahan, Raritan Valley Community College, Clinton, NJ; Jaclyn Reeves-Pepin, NABT, Colorado Springs, CO; Heather Rissler, University of Kansas School of Medicine, Kansas City, KC; Davida Smyth, Texas A&M University-San Antonio, San Antonio, TX; Gordon Uno, University of Oklahoma, Norman, OK

11:30AM - 1:30PM

NABT Leader Lunch

Grand A • Committee Meeting (2 hours) • Invitation Only

12:30PM - 2:30PM

1794-117980 Authentic Scientific Research and Data for the Classroom with Data Nuggets

Midway Suite 7 & 8 • Evolution • Special Workshop (2 hours) • GA

Data Nuggets are free resources, co-designed by scientists and teachers to bring authentic data and research into classrooms. They highlight the true process of science, along with any surprises along the way. In this session, co-Founder Elizabeth Schultheis, will demonstrate best practices for their use in biology classrooms. *This session is a special presentation by the 2025 Huxley Award Winner.*

Elizabeth H. Schultheis, Kellogg Biological Station / Data Nuggets, Hickory Corners, MI

12:30PM - 3:30PM

1794-120552 Scientific Literacy in the Digital Age of Misinformation

Grand B & C • Science Practices • Special Workshop (3 hours) • HS, 2Y, GA

Students are being exposed to more misinformation and disinformation about science than ever before. NCSE's DataWISE tool scaffolds key science practices and media literacy skills to guide students in critical analysis of data-based claims.

Wendy Johnson and Britt Miller, National Center for Science Education, Oakland, CA

1794-116692 Using Societal Challenges as Phenomena in Three-dimensional Units to Develop Student Agency

Midway Suite 1 & 2 • General Biology • Special Workshop (3 hours) • HS, GA

Experience how BSCS's Anchored Inquiry Learning instructional model leverages complex, culturally relevant societal challenges as phenomena in three-dimensional teaching and learning to support all students' learning and development of agency!

Cindy Gay, BSCS Science Learning, Steamboat Springs, CO

12:30PM – 3:30PM CONT.**1794-117400 20 in 20 And Beyond****Midway Suite 6 • General Biology • Special Workshop (3 hours) • MS, HS, GA**

Come try numerous 20-minute inquiry-based activities that are sure to engage and excite your students. You and your students will be glad you did!

Whitney Hagins, Retired, Bolton, Massachusetts

The Society for College Science Teaching (SCST) Presents**1794-121779 Elevate Your College Science Courses****Midway Suite 9 • Instructional Strategies • Special Workshop (3 hours) • GA**

Join SCST's interactive session as college science educators share their favorite techniques and explore strategies to optimize instructional efficacy, college student engagement, and course enjoyment.

Renee M. Clary and Athena Nagel, Mississippi State University, Mississippi State, MS; Amanda Surman, Syracuse University, Syracuse, NY; Derrick A. Nero, University of Nebraska at Omaha, Omaha, NE; Orinna Clark, National Louis University, Wheeling, IL; Ian Moncrief, National Louis University, Chicago, IL, and Michael D. Bechtel, Wartburg College, Waverly, IA

1794-117534 Novel Ways of Engaging Sophisticated Upper-Level Biology Students through Yoga & Mindfulness**Midway Suite 10 • Anatomy & Physiology • Special Workshop (3 hours) • 2Y, 4Y**

This presentation focuses on novel assignments designed to incorporate out-of-the-classroom experiences to more fully engage students in courses like human anatomy and physiology. Students use their own movement experiences to better understand the human body!

Raelynn Haynes, Texas State University, Buda, TX

12:30PM – 3:30PM CONT.**1794-117978 Lessons Learned from Deep Teaching Program (Invitation Only)****Midway Suite 11 • Instructional Strategies • Symposium (Full Day) • 4Y****HHMI BioInteractive Presents****1794-119796 Scientific Modeling with HHMI BioInteractive: Using Models to Visualize, Explain, and Predict****Regency A • Science Practices • Special Workshop • HS, 2Y, 4Y**

Participants will explore ways to engage students in visualizing, explaining, and making predictions about phenomena using models. We will highlight Model Builder and other free BioInteractive resources. Bringing a laptop is recommended.

Sherry Annee, Brebeuf Jesuit Preparatory School, Indianapolis, IN and Marisa Alvarado, Grossmont High School, El Cajon, CA

2:30PM – 3:30PM**NABT Open Forum****Grand A • Committee Meeting (60 min) • GA**

The NABT Board of Directors and Executive Director will lead this interactive discussion to share updates on current and future initiatives. Everyone is invited to learn more about our operations, provide feedback on the programs we support, and get more involved with NABT.

4:00PM - 5:30PM**GENERAL SESSION SPEAKERS****Richard Katskee, Kenneth Miller, & Myrna Perez**

See pages 18-19 for biographies

Connections: Scopes, Kitzmiller, and Today's Challenges to Science Education**Grand DEF • Special Speakers (90 min) • GA**

Together, we'll explore how key moments in history can help shape today's strategies for protecting and promoting accurate, evidence-based science instruction in our classrooms.

In 2025, we mark two significant anniversaries in the history of science education:

100 years since the Scopes "Monkey" Trial, which challenged the ban on teaching evolution and sparked a national conversation about science and religion in schools. 20 years since the Kitzmiller v. Dover decision, where the courts ruled that teaching "intelligent design" in public schools was unconstitutional, affirming the importance of separating science from belief in science classrooms.

These landmark cases remind us how far we've come—but also how much work remains. Science denial and misinformation continue to impact what students learn and how they engage with the world around them.

In this session, we'll discuss what the trials mean for educators today, how misinformation threatens science literacy, the role of public policy and organizations in supporting teachers, and how YOU can advocate for accurate science education in your community. Come be part of a conversation that connects history, policy, and classroom practice—because the fight for science education is far from over, and your voice matters.

This special panel is presented by the National Center for Science Education.

5:30PM– 6:30PM

**NABT Four-Year College
& University Executive
Committee Meeting**

Midway Suite 1 & 2 · Committee Meeting ·
4Y

5:30PM– 7:30PM

**Exhibit Hall Grand
Opening Reception**

Midway West · Special Event · GA

Get ready for an unforgettable start to the NABT Conference! Join us for the grand opening of the 2025 NABT Exhibit Hall, where our amazing sponsors and partners will showcase the latest innovations in life science education. From beloved classics to new favorites, you are sure to find something to elevate your teaching and engage your students!

6:00PM– 7:00PM

**NABT Past Presidents' Advisory
Council Meeting & Reception**

Gothic Corridor · Invitation Only

You see a frog.

**We see an ecologist
restoring fragile wetlands.**

Launch your students into learning with solutions from Carolina® Science. Our hands-on kits, curriculums, and tools do more than teach science. They can empower students to become the problem-solvers and innovators of tomorrow.

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SESSION KEY:

ELEM - Elementary

GA - General Audience

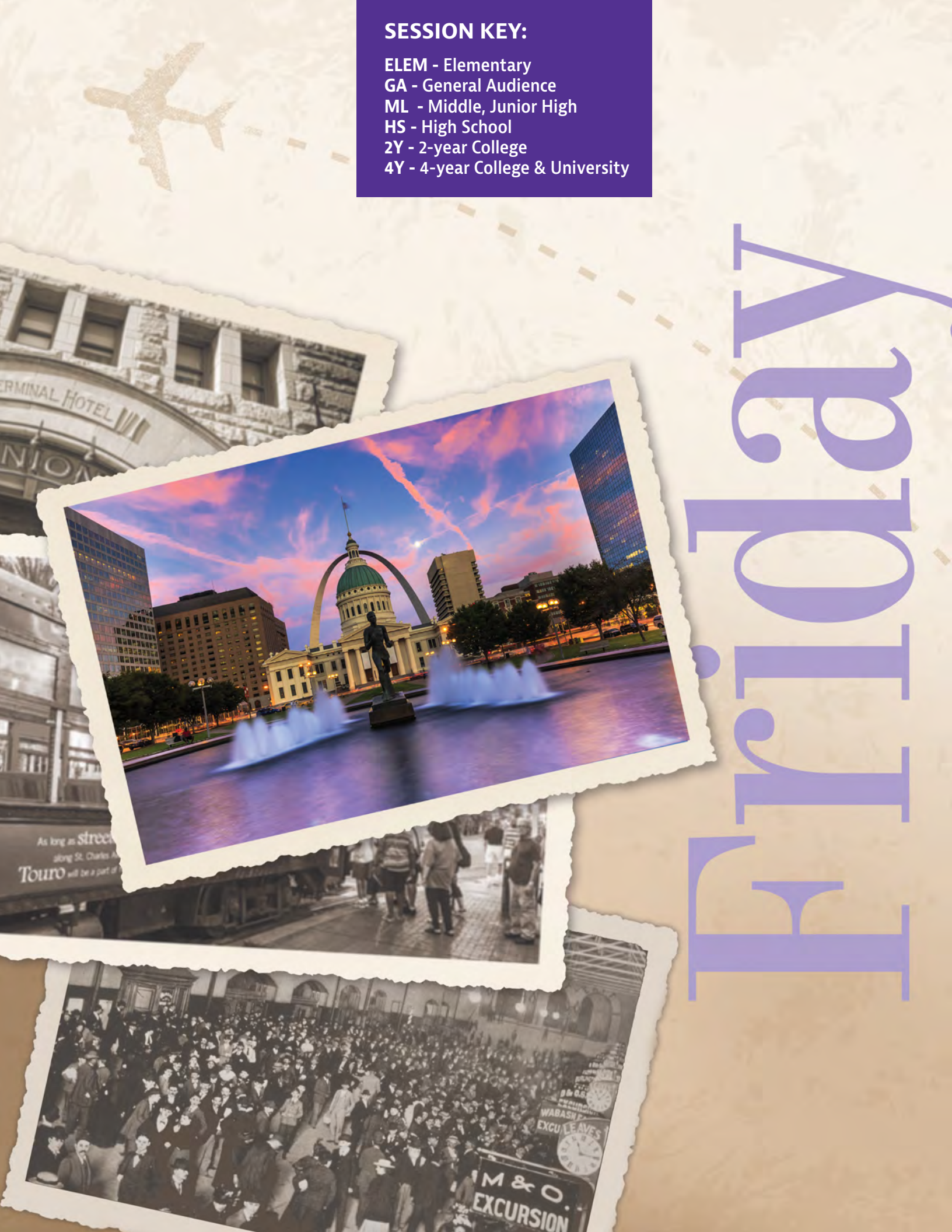
ML - Middle, Junior High

HS - High School

2Y - 2-year College

4Y - 4-year College & University

Friday



7:15AM – 8:00AM**NABT First Timers' Meet & Greet****Midway Suite 6 • Special Event (60 min) • GA**

First-time conference attendees are invited to learn more about NABT, the 2025 Professional Development Conference, and connect with other “first timers.” NABT leaders and former “first timers” will also be available to answer your questions and help you make the most of your time in St. Louis.

Grab your breakfast from Midway East and join us in Midway Suite 6.

8:00AM – 9:00AM**Bio-Rad Presents****1794-120062 Ozempic and Semaglutide Science: Mastering Diabetes and Weight Loss****Grand A • Biotechnology • Demonstration (60 min) • HS, 2Y, 4Y**

Join our workshop to explore Ozempic's dual action on diabetes and weight loss. Learn about semaglutide's role in blood sugar and appetite regulation through hands-on ELISA simulations.

Damon Tighe, Bio-Rad Laboratories, Hercules, CA

miniPCR Presents**1794-120740 Real-world Genetics: Explore Inherited Cancer Risk and Bioethics Through Lynch Syndrome****Regency B • General Biology • Hands-on Workshop (60 min) • HS**

Use gel electrophoresis and pedigree analysis to test family members for Lynch syndrome, a hereditary cancer risk. Plus, engage with the medical and bioethical implications of genetic testing through a role-play activity!

Alex Dainis, miniPCR bio, Cambridge, MA

7:30AM – 8:30AM**NABT Continental Breakfast****Midway East & Midway West • Meal Function (60 min) • GA**

Come grab your breakfast from Midway East or Midway West, then join your colleagues at a section event, meet up with friends, visit the Exhibit Hall, or find a quiet spot to get ready for the day ahead.

8:00AM – 9:00AM**NABT NETWORKING MEETINGS****AP Life Sciences Section Meeting****Grand B & C • AP® Biology & AP® Environmental Science • Section Meeting (60 min) • HS**

Grab your breakfast from the Exhibit Hall and meet other AP teachers in a friendly, informal setting to share insights, ask questions, and build community. You may even get to meet some of your favorite AP colleagues in person. The breakfast includes a special presentation of the *Kim Foglia AP Biology Service Award*.

Sponsored by **minipcr** 

Elementary and Middle-Level (K-8) Meeting**Midway Suite 1 & 2 • General Biology • Section Meeting (60 min) • ELEM, MS**

Meet up with other awesome K-8 educators at this informal networking breakfast designed to help you connect with colleagues to support our youngest scientists.

Two-Year College Section Meeting**Midway Suite 5 • General Biology • Section Meeting (60 min) • 2Y**

Join a supportive community of two-year college educators to share your strategies, your struggles, and your successes! The winners of the *Two-Year College Biology Teaching Award* and the *Professor Chan Teaching Award* will also be recognized.

High School Section Meeting**Grand B & C • General Biology • Section Meeting (60 min) • HS**

If you teach funny freshmen, serious seniors, and everyone in between, you'll want to grab your breakfast, grab a seat, and connect with other high-school biology teachers in this informal setting.

Sponsored by **minipcr** 

Four-Year College & University Section Meeting**Regency A • General Biology • Section Meeting (60 min) • 4Y**

Faculty, education researchers, graduate students, and anyone associated with four-year colleges and universities are invited to network, build community, and learn about section programs and opportunities. There will also be a special presentation of the *Four-Year College & University Section Awards*.

9:15AM – 10:15AM

GENERAL SESSION SPEAKER

Arpita Bose

See page 20 for biographies

Microbes and Electricity: A Journey Through Earth's History**Grand DEF • Special Speaker (60 min) • GA**

Electricity and microbes have an intimate relationship that has come to light over the past few decades. Using tools from a variety of fields, it is becoming apparent that although our investigations into this process are recent, this interaction is ancient. Dr. Bose's lab studies modern microbes whose ancient relatives may have led to the formation of the structures called Banded Iron Formations (BIFs). These structures represent our largest iron ore source, and their deposition, which occurred over a long period through Earth's history, remains shrouded in mystery.

Geologists and geomicrobiologists continue to disagree about what might have led to BIF deposition, and several aspects of the proposed microbiological mechanisms underlying BIF deposition have been challenged. This includes the seeming impossibility of microbes surrounded by rust to survive – and even grow – while being embedded in these iron coffins. Her lab has accumulated substantial evidence that shows this rare feat can indeed be accomplished by BIF-depositing microbes. The process involves the use of electrical current by these microbes through rust. If this process occurred billions of years ago, when BIFs were deposited, it could explain how microbes could have deposited the thick layers of iron oxides we find in these structures. Dr. Bose's lab is working to leverage this process to help find solutions for issues such as climate change.

10:30AM – 12:30PM

NABT EVOLUTION SYMPOSIUM PRESENTED BY NCSE**Journey into Darkness: The Allegory of the Cave****Grand B & C • Evolution • Special Session (120 min) • GA**

Rick Hunter will share the amazing story of his co-discovery of the first-known fossils of *Homo naledi* and later exploration in the Rising Star cave system. Lindsay Hunter will then discuss her participation in the initial excavation and how a diminutive human ancestor challenged established palaeoanthropological views and practices in a big way.

The symposium will also highlight the newly redesigned human evolution lessons from NCSE.

Rick Hunter is a caver and small-space specialist who, along with Steven Tucker, discovered the Dinaledi Chamber in the Rising Star cave system in 2013. He is an Honorary Research Fellow at the Evolutionary Studies Institute (ESI) at the National Centre for Excellence in PalaeoSciences and the Centre for the Exploration of the Deep Human Journey, School of Anatomical Sciences at the University of the Witwatersrand, in Johannesburg, South Africa.

K. Lindsay Hunter was one of six Advance Cave Archaeologists (known popularly as the "Underground Astronauts") selected to excavate within the Rising Star cave system in the Cradle of Humankind in South Africa. She is Anthropologist and National Geographic Explorer for the National Geographic Society. She is also an Honorary Research Fellow, Evolutionary Studies Institute (ESI), National Centre for Excellence in PalaeoSciences, University of the Witwatersrand, Johannesburg, South Africa.

10:30AM – 11:00AM**1794-117421 Students as Plant Scientists through Authentic Research Experiences****Frisco & Burlington (2nd Floor) • Botany & Plant Biology • Demonstration (30 min) • ML, HS, 2Y**

Authentic Research Experiences provided by the Donald Danforth Plant Science Center facilitate student experiences to enhance learning, foster interest, and prepare a diverse STEAM+Ag® next-generation workforce equipped to meet the challenges of the future.

Sandra Arango-Caro, Donald Danforth Plant Science Center, St. Louis, MO

1794-117382 Mutation Monopoly: Exploring the Foundations of Cancer**Illinois Central & New York Central (2nd Floor) • General Biology • Hands-on Workshop (30 min) • HS**

Join us to learn about how a cancer cell develops from the start in this hands-on demonstration that will get participants on their feet while exploring the cell cycle, genetic variants, tumors, and more.

Molly Langston, Southern Research, Birmingham, AL, and Josie Manthey, Spain Park High School, Birmingham, AL

1794-117462 Changing Department Culture to Achieve Inclusive Excellence in Two-year STEM Education**Midway Suite 7 & 8 • JEDI / Inclusive Teaching Practices • Paper (30 min) • 2Y, 4Y**

Our college science department created a professional development series to increase evidence-based instructional practices and collaboration across disciplines. We will share data on our progress and brainstorm how to support and sustain similar programs.

Laura Baumgartner and Maggie Prater, Front Range Community College, Westminster, CO

10:30AM – 11:45AM**Bio-Rad Presents****1794-120060 Illuminate Cell Signaling: Explore Quorum Sensing with Vibrio****Grand A • Biotechnology • Hands-on Workshop (75 min) • HS, 2Y, 4Y**

Explore quorum sensing and cell signaling pathways in this hands-on workshop using *Vibrio campbellii* to investigate gene regulation and bioluminescence through engaging, classroom-ready experiments.

Damon Tighe, Bio-Rad Laboratories, Hercules, CA

1794-117218 SCST Interactive Share-a-thon: AI Strategies for Successful College Science Teaching and Learning**Midway Suite 1 & 2 • Instructional Strategies • Hands-on Workshop (75 min) • 2Y, 4Y**

Society for College Science Teaching's (SCST) speed-sharing workshop overviews effective college science strategies that optimize student learning. Join us as we share our favorite instructional practices that YOU can successfully implement in YOUR college classroom!

Renee M. Clary, Mississippi State University, Mississippi State, MS, and Ian Moncrief, National Louis University, Chicago, IL

Lab-Aids Presents**1794-121415 Cell Differentiation and Gene Expression****Midway Suite 3 & 4 • General Biology • Hands-on Workshop (75 min) • ML, HS, 2Y**

From the Lab-Aids/SEPUP Science and Global Issues: Biology program, participants address students' difficulty conceptualizing selective gene expression by using manipulatives to help explain genetic engineering connections and integrate it as a relevant, engaging sustainability issue.

Ginny Rehberg, Lab-Aids/Tacoma Public Schools, Tacoma, WA

1794-117405 Building Student Data Science and Data Literacy Skills in the Context of Evolution Theory**Midway Suite 5 • AP Biology • Hands-on Workshop (75 min) • HS, 2Y, 4Y**

Learn how you can boost student data science skills and data literacy by engaging them with a variety of authentic data sets that emphasize numerous mechanisms that underlie Evolutionary Theory.

Paul Strode, Fairview High School, Boulder, CO

10:30AM – 11:45AM CONT.**1794-117247 Science Stories That Stick: Integrating Films and Multimedia in the Classroom****Midway Suite 6 • Curriculum Development • Hands-on Workshop (75 min) • ML, HS, GA**

A hands-on workshop exploring how story-based films enhance science learning, featuring classroom-tested strategies, collaborative lesson planning, and tools for engaging students in content, identity, and critical thinking.

Shannon Behrman and Rosa Vegaulla, Science Communication Lab, Berkeley, CA; Rebecca Brewer, Troy High School, Troy, MI; Christine Girtain, Toms River High School South, Toms River, NJ; Renee Haines, Martinsburg High School, Martinsburg, WV; Dan Vanden Heuvel, Wood River High School, Hailey, ID; and Minu Basu, Dougherty Valley High School, San Ramon, CA

1794-120527 What's With the Statistics in Biology?**Midway Suite 9 • AP Biology • Hands-on Workshop (75 min) • HS, 2Y, 4Y**

Come to this interactive session to learn how you can use statistics while teaching (AP) Biology. You will learn the difference between descriptive and inferential statistics and how to utilize standard deviation and standard error of the mean.

Catherine Walsh, The College Board, Gainesville, FL

1794-117647 BioQUEST's SPICE: A Community Supporting Two-Year Faculty Pursuing NSF Grant Opportunities**Midway Suite 10 • Instructional Strategies • Symposium (75 min) • 2Y**

Learn more about BioQUEST's "Supporting Proposal Incubation and Creation for Educators at Two-Year Institutions (SPICE)" project. This session will introduce ways the SPICE community and resources can be used to generate proposals for the NSF Innovation in Two-Year College STEM Education (ITYC) program.

Sarah Prescott, BioQUEST, Raymond, NH and Sam Donovan, BioQUEST, Pittsburgh, PA

Carolina Presents**1794-117528 Photosynthesis, Cellular Respiration, and Enzymes: Teaching Common Biology Concepts with Alginate Beads****Midway Suite 11 • General Biology • Hands-on Workshop (75 min) • HS**

Participants will make and use alginate beads containing either algae, yeast, or an enzyme. They will learn how the beads can be used to teach photosynthesis, cellular respiration, and enzymatic processes.

Crystal Risko, Carolina Biological Supply Company, Burlington, NC

1794-117629 SABER Presents: Getting Started in Biology Education Research Workshop**Regency A • Instructional Strategies • Symposium (75 min) • 2Y, 4Y, GA**

Curious about biology education research but not sure where to start? This interactive session will introduce the basics of BER, explores classroom-ready strategies, and guides you in designing small, manageable studies to improve student learning.

Kristine Callis-Duehl and Ruth Kaggwa, Donald Danforth Plant Science Center, Birmingham, AL

miniPCR Presents**1794-120763 Easy Protein Expression and Purification for Classroom Settings****Regency B • Biotechnology • Hands-on Workshop (75 min) • HS, 2Y, 4Y**

Link AP Biology gene expression concepts with biotech industry methods! Cell-free protein expression and magnetic bead purification bring the biotech industry to your classroom, making complex techniques achievable while reinforcing core biology concepts.

Ally Huang, miniPCR bio, Cambridge, MA

HHMI BioInteractive Presents**1794-119797 Modeling Protein Synthesis and Analyzing Data with HHMI BioInteractive Sickle Cell Resources****Regency C • General Biology • Hands-on Workshop (75 min) • HS, 2Y, 4Y**

Participants will explore free BioInteractive sickle cell resources, including a short film, data sets, and a hands-on card activity for modeling gene expression. We will also discuss classroom strategies to address diverse students' needs.

Robin Bulleri, Carrboro High School, Carrboro, NC, and Heather Peterson, Holt High School, Holt, MI

11:15AM – 11:45AM**1794-117545 From Paper to Pixels: Lessons Learned in Training College Biology Students in the Art of Electronic Lab Notebooks****Frisco & Burlington (2nd Floor) • Technology in the Classroom • Demonstration (30 min) • HS, 2Y, 4Y**

By the end of this session, attendees will have a clear understanding of best practices for incorporating electronic lab notebooks into undergraduate biology courses, along with practical tools for supporting student success in digital recordkeeping.

Darla French, Oberlin College, Lagrange, OH

1794-117531 Consideration and Strategies for Using Primary Literature in the Classroom**Illinois Central & New York Central (2nd Floor) • Instructional Strategies • Hands-on Workshop (30 min) • HS, 2Y, 4Y**

Transform primary literature from alphabet soup into accessible learning tools! Discover strategies for selecting research articles, tackling scientific literacy challenges, and integrating AI to enhance student engagement and understanding of primary literature in the classroom.

Amanda Paz Herrera, Amanda Durbak, and Sarah L. Bush, University of Missouri - Columbia, MO

NEW! AP Biology 2025 CED Supplement

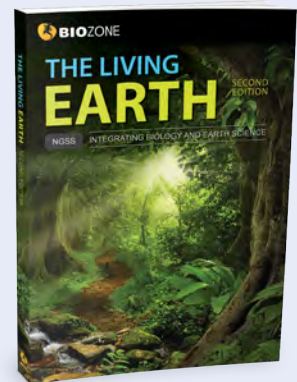
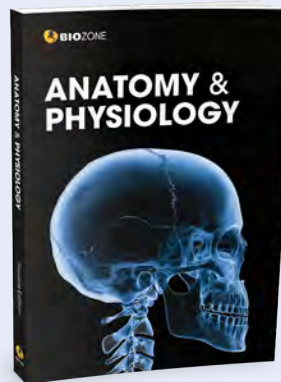
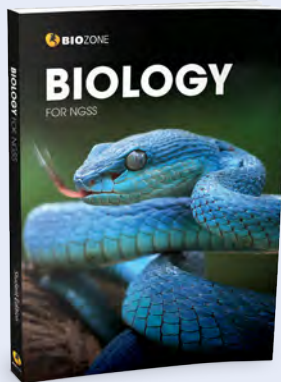
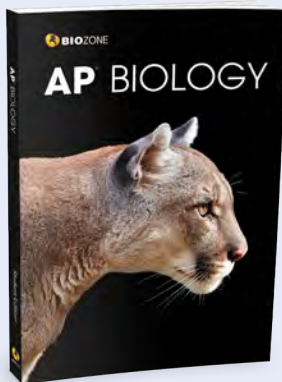
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11:15AM – 11:45AM CONT.**1794-117369 Using Minecraft to Increase Engagement and Retention in College Biology Courses****Midway Suite 7 & 8 • Instructional Strategies • Hands-on Workshop (30 min) • GA**

Minecraft Education (ME) is a quasi-AR platform that is highly accessible. In this presentation, I demonstrate the use of ME in a Comparative Vertebrate Anatomy course.

Gabriel Colbeck, Maryville University, Ballwin, MO

12:00PM – 12:30PM**1794-116731 Using Bioinformatics and the Influenza Virus to Reinforce Molecular Biology, Mutations, and Evolution****Frisco & Burlington (2nd Floor) • General Biology • Hands-on Workshop (30 min) • HS, 2Y, 4Y**

Discover free online tools used to analyze DNA and protein sequences, and how to apply it to vaccine development and influenza evolution, while reinforcing transcription, translation, and mutations.

Warren Coffeen, Linn-Benton Community College, Albany, OR

Bio-Rad Presents**1794-120061 Precision Medicine Begins: A Landmark in CRISPR Gene Editing****Grand A • Biotechnology • Demonstration (30 min) • HS, 2Y, 4Y**

Explore the first personalized CRISPR therapy case at Children's Hospital of Philadelphia, its impact on rare diseases, the future of gene editing, and how CRISPR kits are making this science classroom-ready.

Damon Tighe, Bio-Rad Laboratories, Hercules, CA

12:00PM – 12:30PM CONT.**1794-121767 Writing for the ABT Illinois Central & York Central (2nd Floor) • Instructional Strategies • Demonstration (30 min) • GA**

Join the editorial team of *The American Biology Teacher* for this session designed to encourage and support prospective authors. Turn your idea for an article into an action plan.

William McComas, ABT Editor-in-Chief, University of Arkansas, Fayetteville, AR

1794-117551 Using Visual Models and Student Drawings to Assess Scientific Practices, Crosscutting Concepts, and Biology Core Ideas on Exams**Midway Suite 1 & 2 • General Biology • Hands-on Workshop (30 min) • HS, 2Y, 4Y**

Learn how to write exam questions that use models and student-generated drawings to assess student understanding of biology core ideas.

Crystal Uminski, Towson University, Towson, MD, and Anna Hiatt, Hastings College, Hastings, NE

Anatomege Presents**1794-120716 Experiencing Science Together: Adapting Traditional Science Labs to Modern Interactive Technology****Midway Suite 3 & 4 • Technology in the Classroom • Demonstration (30 min) • HS, 4Y, GA**

Discover how students and teachers can experience real science through interactive touchscreen experiments on the Science Table, engaging with stunning visuals that bring microscopic and macroscopic worlds to life while reducing hazards and costs.

Lilly Fueller, Anatomage, Santa Clara, CA

1794-117313 Integrating Synthetic Biology into Your Active Classroom: An Engineering Approach for Your Classroom**Midway Suite 5 • AP Biology • Hands-on Workshop (30 min) • HS**

Discover how synthetic biology brings the Central Dogma to life. This interactive workshop blends authentic science activities and discussions, emphasizing engineering practices in molecular genetics. Bonus raffle to win a free teaching kit!

David Ganey, Maplewood Richmond Heights High School, Maplewood, MO

1794-117454 From Data to Models: Investigating PFAS Contamination Through Student Inquiry**Midway Suite 6 • Ecology / Environmental Science / Sustainability • Hands-on Workshop (30 min) • HS**

Take on the role of a student investigating PFAS contamination in Michigan deer! This session models how student-driven questioning, data analysis, and system modeling engage learners in NGSS-aligned practices to explore real-world environmental issues.

Andrew Taylor, Olathe Northwest High School, Olathe, KS

1794-116586 Unexpected Predator: Shifting Animal Behaviors in Changing Environments Explored Through Tetrahymena (K-8)**Midway Suite 7 & 8 • Ecology / Environmental Science / Sustainability • Hands-on Workshop (30 min) • ELEM, ML, GA**

Explore how scientists use a model organism to uncover predator diet shifts in changing environments! Engage in authentic science and discover how real research connects to classrooms in this exciting, interactive session! Includes a FREE Lending Library for Your Classroom.

Alexandra Forgerson, Washington University in St. Louis, St. Louis, MO

2025 Biology Education Research Symposium

2:00PM – 4:00PM
Regency A

The symposium is coordinated by the NABT Four-Year College & University Section's Research Committee.

Proceedings will be posted online at www.NABT.org

Implementing Hyflex in Team-Based Learning: A Case Study in Undergraduate Biology

Andrea Bierema, Michigan State University, East Lansing, MI

This study examines student participation behavior in a large, team-based undergraduate biology course that used a bounded HyFlex policy. Students were allowed to miss up to three in-person class sessions and complete asynchronous makeup activities to earn participation credit. The course emphasized teamwork, with permanent six-person teams engaging in case studies and debates during weekly class meetings. Makeup activities paralleled in-class work and were completed individually. The study explored how often students used the asynchronous option, whether their collaboration attitudes (initial project preferences and end-of-semester team satisfaction) influenced usage, and whether attendance patterns varied over time. Participation data, collaboration indicators, and team satisfaction scores were analyzed descriptively and with chi-square tests. Most students (86%) stayed within the three-makeup limit, and nearly all made up any missed sessions. Neither collaboration preferences nor team satisfaction were significantly associated with asynchronous participation. Absences tended to cluster around calendar events such as spring break and holidays.

This case illustrates how a bounded HyFlex structure can provide students with meaningful flexibility while supporting consistent participation, even in large, team-based courses, by balancing structured choice, accountability, and workload considerations.

Science Talk in the Southeast: Investigating Undergraduates' Interpersonal Science Communication Value and Self-Efficacy

Erin Rowland and M. Elizabeth Barnes, Middle Tennessee State University, Murfreesboro, TN

Effective science communication is critical for bridging divides in society about culturally controversial science topics (CCSTs) like climate change and vaccines, and is recommended as a core skill in undergraduate science curricula. Since the diversity of undergraduate students exceeds that of scientists, they may have greater potential to span boundaries between their communities and science through conversations. Although students are already attempting boundary spanning, we lack information about the extent to which students value communication about CCSTs and feel they can have effective conversations. Further, we know little about how students' social identities, such as political and religious affiliation or factors such as their major, may influence these perceptions. We administered an exploratory survey to 867 students at a university in the southeastern United States, where disagreement with experts about CCSTs is prevalent among the public, to assess students' value and self-efficacy for communication. We found that non-majors and conservative students perceived less communication value overall, and liberal students perceived lower self-efficacy for emotional regulation. This exploratory study highlights points of tension that future research can address between undergraduate biology students and effective interpersonal communication about CCSTs.

Modeling Systems in Biology: Exploring Student Conceptualization of Gene Expression and Natural Selection

Elena Bray Speth and Faryal Hashmi, St. Louis University, St. Louis, MO; Daniel Ferguson and Jennifer Momsen, North Dakota State University, Fargo, ND; and Samuel Montgomery, Elon University, NC

National guidelines for science education at the K-12 and college levels identified systems as a core concept, and modeling as a core competency, for biology education. Compared to other concepts and practices, however, systems and models have been studied, so far, relatively less, particularly at the college level. Our research seeks to bridge this gap by developing curricula and instruction that center systems and systems thinking in the undergraduate biology classroom. Conceptual model building, an integral component of our instructional approach, supports student reasoning and learning about complex biological systems, while also generating important evidence of how learners construct and represent their knowledge and develop systems thinking skills.

We present two studies, conducted at different institutions, illustrating, respectively: (1) how students' conceptual models of gene expression change over a short period of time while students are learning about the central dogma of molecular genetics, and (2) how students connect the central dogma to the process of natural selection in introductory biology and, one year later, in a 300-level evolution course. Our findings contribute to the biology education community's pedagogical knowledge about how to incorporate systems and models in the biology classroom.

Exploring the Capital Low-Income Students Use To Navigate Barriers In Undergraduate Research Experiences

Emma Goodwin, University of Georgia, Athens, GA, and Sara Brownell, Arizona State University, Tempe, AZ

Participation in undergraduate research experiences is demonstrably a positive and influential experience for many science majors. However, the structure of undergraduate research experiences as a historically unpaid and extracurricular activity may challenge participation of students who have greater financial need. Through an interview study with 22 students recruited from universities across the United States, we explore how low-income students use the social capital developed through their background-specific experiences to navigate barriers and participate in undergraduate research experiences. In our study, low-income students described how they often have less time and fewer resources to participate in research due to increased family or employment responsibilities, may experience housing or food insecurity, need to commute to research sites from areas with more affordable housing, and lack discretionary income to cover any unexpected costs of participating in their research experience. Guided by Yosso's theory of *Community Cultural Wealth*, we explore how these experiences both pose barriers and bolster students' capacity to persist and excel in undergraduate research experiences. This work expands awareness of the ways that traditional mentored undergraduate research experiences may systematically disadvantage low-income students and highlights what universities and research mentors can do to support equitable research participation for low-income students.

SPECIAL PRESENTER

Cynthia J. Brame

Vanderbilt University, Nashville, TN

Recipient of the Four-Year College and University Research in Biology Teaching Award

Maximizing the Value of Learning Assistants for Students' Belonging, Mattering, and Confidence in Gateway STEM Courses

Learning Assistants (LAs), undergraduates who facilitate active learning, can reduce psychosocial barriers in gateway science courses and increase student belonging and confidence through mechanisms that align with Dewsbury's Deep Teaching model. However, prior work has not investigated how LA impact varies among demographic groups. We investigated how LA integration impacts belonging, confidence, and a previously uninvestigated concept, mattering, for students from different demographic groups. Group interviews with 33 students from LA-supported introductory biology and general chemistry courses were conducted to identify factors that were similar and different for students from different demographic groups. Inductive analysis of the interviews identified six narratives describing students' experiences with course structures, people, and personal connections. Underrepresented racial/ethnic (UR) and first-generation (FG) students reported that active and collaborative learning offered multiple benefits, which were inconsistent for well-represented, continuing-generation (WRCG) women and were not mentioned by WRCG men. All groups described instructor interactions as helpful, but UR and FG students highlighted the importance of instructors in establishing course climate. Students also described differences in shared identities: sharing academic identities with LAs was important for all groups, but shared gender and racial/ethnic identities had greater salience for UR and FG students. These results suggest ways that instructors, LAs, and LA programs can better support students with different demographic identities and extend Dewsbury's Deep Teaching model, illustrating how the integration of LAs into STEM courses can support students' belonging, confidence, and mattering.

12:00PM – 12:30PM CONT.**1794-120528 Graphs Matter****Midway Suite 9 • AP Biology • Hands-on Workshop (30 min) • HS, 2Y, 4Y**

Data representation can come in many forms and formats. Students struggle with choosing graph types when data sets are presented to them. Come to this session to learn how to support students in constructing graphs and analyzing data.

Catherine Walsh, The College Board, Gainesville, FL

1794-117392 Small Changes for Big Gains: Addressing Recurring Misconceptions Through Common Classroom Activities**Midway Suite 10 • Instructional Strategies • Hands-on Workshop (30 min) • HS, 2Y, 4Y**

Frustrated by the same misconceptions year after year? Come see how small changes to existing activities can address student challenges in understanding meiosis, gene expression, natural selection, and other foundational topics in biology.

Stephen Traphagen, Oak Park and River Forest High School, Oak Park, IL and Julie Minbiole, Columbia College Chicago, Oak Park, IL

Carolina Presents**1794-117578 Strawberry DNA Necklace****Midway Suite 11 • General Biology • Hands-on Workshop (30 min) • ML, HS, 2Y**

In this exciting activity, participants are introduced to DNA, literally, by removing it from a strawberry! This activity is a great way to begin your unit on DNA, no matter the grade level!

Crystal Risko, Carolina Biological Supply Company, Burlington, NC

12:00PM – 12:30PM CONT.**miniPCR Presents****1794-120765 Central Dogma Made Visible: Hands-on and Digital Labs****Regency B • General Biology • Demonstration (30 min) • HS, 2Y, 4Y**

Watch genetic information flow from DNA to RNA to protein in real-time using cell-free protein expression in a test tube. Now in digital format, suitable for stand-alone delivery or integrated with a hands-on laboratory experience.

Ally Huang, miniPCR bio, Cambridge, MA

1:15PM – 1:45PM**miniPCR Presents****1794-120766 Words of Uncertainty and Trust in Science****Regency B • Instructional Strategies • Demonstration (30 min) • GA**

Words of uncertainty, like "likely" and "maybe," are critical to accurately communicating science. This session will discuss the importance of getting students comfortable with these words in order to increase lifelong trust in science.

Alex Dainis, miniPCR bio, Cambridge, MA

HHMI BioInteractive Presents**1794-119798 What is Life? An Engaging and Challenging Activity to Identify and Define Characteristics of Life****Regency C • General Biology • Hands-on Workshop (30 min) • ML, HS, 2Y**

Participants will engage with a card-sorting activity from BioInteractive that challenges students to define life by comparing living and nonliving things. We will highlight how to use this activity with a variety of student populations.

Sam Loftus, Oregon Coast Community College, Newport, OR

2:00PM – 4:00PM**16th Annual Biology Education Research Symposium****Regency A • Instructional Strategies • Symposium (2 Hours) • 2Y, 4Y, GA**

NABT is proud to present the 16th Annual Biology Education Research Symposium. Presentations were accepted through a double-blind review process open to biology instructors and education researchers at all levels. The symposium format is traditional 15-minute presentations of papers by individuals or co-authors, followed by Q&A.

See page 36 for a full listing of abstracts.



2:00PM – 2:30PM

Justice, Equity, Diversity, and Inclusion (JEDI) Networking Session

Conductor Room • JEDI / Inclusive Teaching Practices • Hands-on Workshop (30 min) • GA

Network with other practitioners who are passionate about justice, equity, diversity, and inclusion. This event is open to everyone, all identities and levels are welcome!

1794-117450 Genomics Education Modules (GEMs): Integrating RNA-Seq Research into Freshman Biology at a Community College

Frisco & Burlington (2nd Floor) • Genetics • Demonstration (30 min) • 2Y, 4Y

The Genomic Education Modules (GEMs) project equips community college students with genomic literacy through hands-on RNA-seq research. At Clovis, students explore gene expression, build scientific skills, and present findings—enhancing STEM engagement via flexible, research-driven learning.

Stephanie Coffman, Clovis Community College, Clovis, CA

Bio-Rad Presents

1794-120051 AI in the Lab: How Algorithms Are Reshaping Biology

Grand A • Biotechnology • Demonstration (30 min) • HS, 2Y, 4Y

Discover how AI is transforming biology—from AlphaFold's protein predictions to machine learning in drug discovery, experimental design, and bioinformatics—and the essential skills future biologists need in this evolving landscape.

Damon Tighe, Bio-Rad Laboratories, Hercules, CA

NCSE Presents

1794-120550 Teaching Climate Change to Address Denial & Climate Anxiety

Grand B & C • Ecology / Environmental Science / Sustainability • Hands-on Workshop (30 min) • ML, HS, 2Y

Teaching climate change can spark a range of responses, from denial to anxiety. Explore free, classroom-ready NGSS-aligned resources that support flexible, student-centered instruction and plan how to implement them in your classroom.

Wendy Johnson and Britt Miller, National Center for Science Education, Oakland, CA

1794-117533 A Scoping Literature Review on Characteristics of Undergraduate Science Lab Instruction and Methods

Illinois Central & New York Central (2nd Floor) • General Biology • Paper (30 min) • 4Y

A closer look at university biology lab instructions, potential modalities, and what characteristics could make them more effective.

Jennifer L. Sollinger, North Carolina State University, Raleigh, NC

1794-117552 Biodiversity on a Budget: Easy Sampling of Local Arthropod Populations Using Affordable Equipment

Midway Suite 1 & 2 • Ecology / Environmental Science / Sustainability • Demonstration (30 min) • HS, 2Y, 4Y

By demonstrating that high-quality biodiversity research is possible with minimal financial investment, this session aims to make arthropod ecology more accessible to a wider audience and foster greater participation in local biodiversity monitoring efforts.

Darla French, Oberlin College, Lagrange, OH

BFW Publishers Presents

Pounce into AP® Biology: Introducing the New "Biology for the AP Course"

Midway Suite 3 & 4 • AP Biology • Demonstration (30 min) • HS

Join us for a showcase of the NEW second edition of Biology for the AP® Course—the only program built from the ground up for AP® Biology. Explore new features, digital options, and win a TE!

Thomas Menna, BFW Publishers, Hamilton, NJ

1794-117532 Rising to the Challenge: Improving Student Outcomes Using Intentional Course Design Integrating Rigor, Inclusion, Support, and Engagement

Midway Suite 5 • Instructional Strategies • Hands-on Workshop (30 min) • 2Y, 4Y

Learn about RISE as an integrated strategy for course design that challenges students and provides meaningful learning experiences across diverse student populations by using research-based best practices in areas of Rigor, Inclusion, Support, and Engagement.

Alison J Albee, Megan Woltz, Meri Marsh, and Elizabeth Melick, Lindenwood University, St. Charles, MO

1794-117532 Orchestrating Productive Task-Based Discussions in Science

Midway Suite 6 • Instructional Strategies • Hands-on Workshop (30 min) • ML, HS

Explore a framework that helps orchestrate productive discussions in science. These practices make student-centered approaches to science instruction accessible and manageable for teachers as they are responsive both to students' thinking and core scientific ideas.

Vyjayanti Joshi and Olivia Doe, Lake View High School, Chicago, IL

2:00PM – 2:30PM CONT.**1794-117487 The Value of and Incorporating Student-Centered Integrated Research****Midway Suite 7 & 8 • Science Practices • Demonstration (30 min) • GA**

Understand the importance of granting students the opportunity for choice and exploration in science, and learn how to effectively integrate this methodology into your classroom.

Michael Haughwout and Valerie Kilar, Rumson-Fair Haven Regional High School, Leonardo, NJ

1794-117437 Empowering Science Learners: Co-constructing a Culturally Sustaining Curriculum with Black Adolescent Girls**Midway Suite 9 • General Biology • Paper (30 min) • ML, HS, GA**

This session explores the development of a culturally sustaining science curriculum co-created with Black adolescent girls, highlighting how integrating cultural backgrounds fosters empowerment, belonging, and confidence in science, supporting identity and engagement in learning.

Tajma Cameron, Drexel University College of Medicine, Hyattsville, MD

1794-116716 Measuring Feminization by Wolbachia in Common Pillbugs**Midway Suite 10 • Biotechnology • Demonstration (30 min) • HS, 2Y, 4Y**

The bacterium Wolbachia can cause genotypic male pillbugs to develop as reproductive females. Learn how this can be demonstrated easily in the classroom by pillbug culture and molecular methods.

Bob Kuhn, FCS Innovation Academy STEM High School, Alpharetta, GA

miniPCR Presents**1794-120768 Diagnosing Sickle Cell Disease: Hands-on and Virtual Genetics Labs****Regency B • General Biology • Demonstration (30 min) • HS, 2Y, 4Y**

Track the sickle cell allele in a fictional family using gel electrophoresis. Available as a hands-on lab or virtual simulation, this case study teaches Mendelian genetics, inheritance, and the molecular basis of sickle cell disease.

Kristin Hennessy-McDonald, miniPCR bio, Cambridge, MA

HHMI BioInteractive Presents**1794-119799 Power Up Your Classroom: Strategies for Engaging Students with HHMI BioInteractive's Data Points****Regency C • Instructional Strategies • Hands-on Workshop (30 min) • HS, 2Y**

Spark student "aha!" moments with BioInteractive's Data Points. During this session, we'll share practical strategies like quick data reviews, collaborative whiteboard analysis, and engaging gallery walks to bring real-world data into your classroom.

Tanea Hibler, Rabun Gap-Nacoochee School, Rabun Gap, GA

2:00PM – 3:15PM**EDVOTEK Presents****1794-120522 Forensic Escape Room: Design Your Own Biotech Adventure****Midway Suite 11 • Biotechnology • Hands-on Workshop (75 min) • HS, 2Y, 4Y**

Explore forensic science with fun and exciting escape room activities! Try blood detection and DNA fingerprinting, decipher clues, and learn to design your own escape room where students analyze evidence to free the innocent.

Thomas Cynkar, EDVOTEK, Inc., Washington, DC

2:45PM – 4:00PM**BIPOC Affinity Group****Conductor Room • JEDI / Inclusive Teaching Practices • Hands-on Workshop (75 min) • GA**

Network with fellow BIPOC practitioners to connect and build relationships! This event is open to any practitioner of any level who self-identifies as a Black, Indigenous, and/or person of color.

1794-117351 Cell Respiration Lab Without Tears!**Frisco & Burlington (2nd Floor) • General Biology • Hands-on Workshop (75 min) • ML, HS**

Fed up with peas and respirometers that leak? Engage in a simple, effective cellular respiration investigation using yeast and syringes! We'll also consider experimental design, cell respiration details, and what to do with the data.

Phyllis Robinson, St. Andrew's Episcopal School, Silver Spring, MD

2:45PM – 4:00PM CONT.**Bio-Rad Presents****1794-120063 Illuminate Cell Signaling: Explore Quorum Sensing with Vibrio****Grand A • Biotechnology • Hands-on Workshop (75 min) • HS, 2Y, 4Y**

Explore quorum sensing and cell signaling pathways in this hands-on workshop using *Vibrio campbellii* to investigate gene regulation and bioluminescence through engaging, classroom-ready experiments.

Damon Tighe, Bio-Rad Laboratories, Hercules, CA

NCSE Presents**1794-120548 Why is Evolution so Challenging to Teach? Resources for Addressing Misconceptions & Resistance****Grand B/C • Evolution • Hands-on Workshop (75 min) • ML, HS, 2Y**

Discuss legislative attempts to blunt the teaching of evolution and explore free, classroom-ready resources aligned to NGSS developed by the National Center for Science Education that help students resolve misconceptions using a no-conflict approach.

Wendy Johnson and Britt Miller, National Center for Science Education, Oakland, CA

1794-117428 Storyline: Cholera, G-proteins, and Cystic Fibrosis**Illinois Central & New York Central (2nd Floor) • General Biology • Hands-on Workshop (75 min) • HS, 2Y, 4Y**

This storyline explores biological concepts associated with cholera. It encompasses lessons on cholera, the bacterial pathogen (*Vibrio cholerae*), cholera's effects on cell signalling, cystic fibrosis, and the CFTR protein, and epidemiological cases.

Elizabeth Cowles, Eastern Connecticut State University, Willimantic, CT

1794-117567 Daily Executive Functioning Assistance through Student Welcome Scripts**Midway Suite 1 & 2 • JEDI / Inclusive Teaching Practices • Demonstration (75 min) • ELEM, ML, GA**

Integrate relationship, rituals, and traditions into your classes. These repetitive but important tasks can be delegated with scaffolding for all learners from middle school through college. Empower neurospicy students and model consistent executive functioning!

Bethany Cates, Western Sierra Collegiate Academy, Lincoln, CA

BFW Publishers Presents**1794-122283 Are You Game? Using Games to Teach Core Concepts in Biology****Midway Suite 3 & 4 • AP Biology • Hands-on Workshop (75 min) • HS, 2Y, 4Y**

Discover how games—from Wordle to board games—can boost participation, motivation, and concept mastery in biology. Play classroom-tested games and explore their pedagogy for teaching processes, building connections, and engaging all learners.

James Morris, Brandeis University, Watertown, MA

1794-116978 Alleviating Knowledge Gaps and Misconceptions - Using Data from the 2025 AP Biology Exam and Chief Reader report to inform targeted instructional practices.**Midway Suite 5 • AP Biology • Hands-on Workshop (75 min) • HS, 2Y, 4Y**

Informed by the College Board's 2025 "AP Biology Chief Reader Report" along with performance data from the exam, ready-to-use activities will be provided and practiced for seamless implementation into the classroom.

Rachel Lytle, Brentwood High School, Brentwood, TN

1794-117451 Engaging ALL Students in Scientific Learning through Zebrafish: A Hands-On Approach**Midway Suite 6 • General Biology • Hands-on Workshop (75 min) • ML, HS, 2Y**

Explore how zebrafish (*Danio rerio*), a key biomedical research model and easy-to-maintain classroom aquarium fish, can spark ALL students' curiosity and scientific engagement through real-life science experiences and multiple learning modalities.

Vinita Hajeri Pam Kirkland, University of Texas at Dallas, Richardson, TX

BIOZONE Presents**1794-117439 Discover BIOZONE Worktexts: Engaging, Flexible & Interactive****Midway Suite 7 & 8 • General Biology • Demonstration (75 min) • HS**

BIOZONE's student-centered worktexts are supported by our Teacher Toolkit. Seamlessly integrate print and digital resources for an engaging, flexible teaching experience. View updated AP Biology title for new CED. Receive FREE print and digital sample!

Richard Allan, BIOZONE Corporation, Parker, CO

2:45PM – 4:00PM CONT.**1794-117418 Microbial Survivor: Gamification of Diversity, Adaptation, and Environmental Interactions****Midway Suite 9 · General Biology · Hands-on Workshop (75 min) · HS, 2Y, 4Y**

"Microbial Survivor" allows students to connect adaptations to environmental interactions by pitting their microbes of choice against other students'. Come battle with us as we demonstrate how students can explore biological diversity through simple games.

Maggie Prater and Laura Baumgartner, Front Range Community College, Westminster, CO; and Paige Littman, University of Colorado, Boulder, CO

1794-116800 Teaching Membrane Potential and Membrane Transport with Legos**Midway Suite 10 · Anatomy & Physiology · Demonstration (75 min): Shows participants how to use data sets, equipment, online resources, etc. · HS, 2Y, 4Y**

Participants will experience a very active, engaging way to teach membrane potential and cell transport using LEGO and bingo chips.

Andrew Corless, Vincennes University, Vincennes, IN

miniPCR Presents**1794-120770 From Barnyard to Backyard: Research Projects for the Biology Classroom****Regency B · General Biology · Hands-on Workshop (75 min) · HS, 2Y, 4Y**

Sex chromosomes that define hens or roosters. Soil samples hiding antibiotic resistance genes. Your students can investigate both using hands-on molecular techniques that easily scale from classroom activities to independent research projects.

Ally Huang, miniPCR bio, Cambridge, MA

HHMI BioInteractive Presents**1794-119800 Investigating Patterns of Human Phenotypic and Genetic Diversity with HHMI BioInteractive Resources****Regency C · Genetics · Hands-on Workshop (75 min) · HS, 2Y, 4Y**

Join us as we model how to utilize free BioInteractive resources to help students understand human variation, including how to use data to address misconceptions students may hold about genetic and phenotypic diversity.

Kathryn Jones, Howard Community College, Columbia, MD, and Brian Mason, Chugiak High School, Chugiak, AK

4:00PM – 5:00PM**1794-121555 Student Poster Practice Session****Midway Suite 1 & 2 · Instructional Strategies · Hands-on Workshop (30 min) · HS, 2Y, 4Y**

Join other student poster presenters (and their mentors) for some informal practice to help you prepare for the *NABT & SABER Biology Education Poster Session*.

4:00PM – 5:30PM**Exhibit Hall Closing Experience****Midway West · Special Event · GA**

It's last call in the NABT Exhibit Hall. It's also your last chance to visit booths, talk to exhibitors, and get those freebies for the classroom. This special reception will include special guests, giveaways, and the grand prize drawing for the "Find the President" Contest.

6:00PM – 8:30PM**NABT Science Disco & Halloween Party****Grand Hall · Special Event · GA**

Get ready to dance the night away at NABT's Science Disco & Halloween Party! This unique event will feature food, fun, and friends catching up and getting down. Don't have boogie fever? You can still show up in costume and enjoy a night of games, contests, and laughs in the famous lobby of the Historic Union Station Hotel.

Tickets are not needed, and everyone is welcome.

SESSION KEY:

ELEM - Elementary

GA - General Audience

ML - Middle, Junior High

HS - High School

2Y - 2-year College

4Y - 4-year College & University

Study



NABT & SABER Midwest Biology Education Poster Session

8:00AM - 10:00AM • Midway West • Special Program • GA

GENERAL CATEGORY (NON-COMPETITIVE)

1. Cultivating Water-Conscious Communities to Solve Water Challenges

Robin Roberson, East Central University, Ada, OK

2. Vision and Change: Past, Present, and Future

Michael Moore, University of Arkansas at Little Rock, Little Rock, AR; Jeremy L. Hsu, Chapman University, Orange, CA; Dina Newman, Rochester Institute of Technology, Rochester, NY; Carlos Goller & Stephanie Mathews, North Carolina State University, Raleigh, NC; Uma Swamy, Florida International University, Miami, FL

3. Birds Flying High: Applying My Experience at Hog Island Audubon Camp for Educators to My College-Level Teaching

Darla French, Oberlin College, Oberlin, OH

4. Don't Call Me Creepy: Bringing Close Observation Skills from the Art Museum into the Biology Classroom to Challenge Typical Stereotypes and Inspire Curiosity about Arthropods

Darla French, Oberlin College, Oberlin, OH

5. Misshaped chromosomes, mismatched chromatids, and missized genes: Easy edits may help mitigate misconceptions commonly represented in published scientific figures

Crystal Uminski, Towson University, Towson, MD; Dina L. Newman & L. Kate Wright, Rochester Institute of Technology, Rochester, NY

6. Improving student learning outcomes with outdoor education: examples from teaching "Field Ecology in Montana"

Jennifer Schieltz, Iowa State University, Ames, IA

7. Understanding Alzheimer's: A Student-Driven Mission to Support Youth

Erica Cohan & Logan Swank, Olathe Northwest High School, Olathe, KS

8. How to create meaningful online assignments in an AI world: a work in progress.

Jenny Archibald & Mark Mort, University of Kansas, Lawrence, KS

9. Data Skills for Biologists: A Scaffolded Approach to Undergraduate Data Literacy

Sarah Justice and Zachary Sylvain, Marian University, Indianapolis, IN

10. The Wissahickon Ecosystem Game: An Interdisciplinary Approach to Teaching and Learning Urban Ecology

Hilton Oyamaguchi, David Contosta, Sienna Kerwood, Kaitlyn Turpin, Jonathan Bartolomei, & David Linsalata, Chestnut Hill College, Philadelphia, PA

11. Microlearning as a Potential Tool to Enhance Learning and Engagement in a Biology Laboratory

Barbara Murdoch, Eastern Connecticut State University, North Windham, CT

12. The Impact of Teaching Students About Fanny Hesse and the Introduction of Agar to the Microbial Sciences

Dave Westenberg, MO S&T, Rolla, MO; Corrado Nai, N/A, Jakarta, Indonesia

13. The BioQUEST Curriculum Consortium: A Community of Educators Supporting Evolution and Revolution in STEM Education

Sarah Prescott, BioQUEST/UNH, Raymond, NH; Sam Donovan & Deb Rook, BioQUEST, Raymond, NH; Drew LaMar, BioQUEST/William and Mary, Williamsburg, VA

14. Open Education Ecosystems -

Supporting Faculty Adoption and Adaptation of Open Science Products and Practices

Sam Donovan & Deb Rook, BioQUEST, Raymond, NH; Drew LaMar, BioQUEST/William and Mary, Williamsburg, VA

15. Is teaching research different? Specialized knowledge used by Course-based Undergraduate Research Experience Instructors

Alexandra Cooper, Danielle Philo, Tessa Andrews, & Erin Dolan, University of Georgia, Athens, GA

16. Introducing Authentic Biological Stress Research into Laboratory Courses with StressCURE, a Course-based Undergraduate Research Experience (CURE) Using the C. elegans Model System

Joshua Gray, US Coast Guard Academy, New London, CT; Julie Hall, Lincoln Memorial University, Harrogate, TN; Sam Caito, Husson University, Bangor, ME; Mindy Reynolds, Washington College, Chestertown, MD; Jennifer Newell-Caito, University of Maine, Bangor, ME; Jessica Hartman, Medical University of South Carolina, Charleston, SC

17. The Evaluation of Student Learning, Self Identity, and Demographics in an Introductory Biology Classroom

Caniya McCray-Brown and William Martin, Northern Illinois University, Dekalb, IL

18. Development and Incorporation of a Semester-Long Research Project to Build Professional Skills and Engage within the Scientific Process

Johanna Morrow, Westminster College, Fulton, MO

19. Fresh Water Quality in the Two Rivers State Recreational Area: A Pilot Study

Ava Buggi & Jeba Inbarasu, Metropolitan Community College, Omaha, NE

20. Empowering Student Scientists Through Local Insect Ecology: The MothEd Teacher Guide

Peter White, Chris Brown, & Eva Conley, Michigan State University, East Lansing, MI

21. Variables affecting secondary school students' willingness to eat genetically modified food crops in Ogun state, Nigeria

Olusegun Ogundele, Tai Solarin University of Education, Ijebu Ode, Ogun

22. Bridging Generations, One Trip at a Time

Amy McElhinney, University of Mount Union, Alliance, OH

23. A CURE for High School Science - Molecular Biology Research Class (MBRC)

Daniel Shannon & Christine Brookbank, Archbishop Moeller High School, Cincinnati, OH

24. Effectiveness of a required course in advancing students' understanding of barriers to learning and participation of underutilized groups in Science, Technology, Engineering and Math (STEM)

Ashley Heim & Michele Wheatly, Syracuse University, Syracuse, NY

25. Making a Case for Not-so-Identical, Identical Twins

Bethany Stone, University of MO-Columbia, Columbia, MO; Justin Pruneskin, Heidelberg University, Tiffin, OH

26. High School or Introductory Microbiology/Science Activities Using Fuzzy Microbes, Scientist Posters, and Conversations About Microbial Roles to Shift Perceptions about Microbes and Scientists

Amy Reese, University of Health Sciences & Pharmacy, St. Louis, MO

27. The Small Picture: A Multi-Week Undergraduate Lab Unit for Understanding How a Single Micrograph of a Cell is Made

Rebekah White, University of Arkansas at Little Rock, Little Rock, AR

28. Using Simulation-Based Learning to Facilitate Professional Identify Formation in Pre-Health Undergraduate Students

Trisha Staab, Sarah Justice, Mackenzie Flynn, Marjorie Britt, Amanda Luper, & Robyn Fuchs, Marian University, Indianapolis, IN

29. Writing for effective content engagement, understanding, and retention: A comparative analysis of outcomes in parallel WI and non-WI sections of Developmental Biology

Mannie Liscum, University of MO, Columbia, MO

30. Making Biology Meaningful for Non-Science Major Students

Tarannum Uddin, Wilbur Wright College, Chicago, IL

31. An anatomy mini-CURE: You don't need to work yourself to the bone to implement research-based learning

Gideon Ney, Johnson County Community College, Overland Park, KS

32. Biology CURE for first-year students: CAMSAP worms are prone to convulsions and are rescued by bioinformatics predicted drug targets

Jana Marcette, Braiden Worden, Madison Walker, & Ava Schaak, Montana State University-Billings, Billings, MT

33. Expectations In Science Education: A look into the effects of perception and assumption in the science classroom

Tristan Cascio & Suann Yang, SUNY Geneseo, Geneseo, NY

34. Working together to improve the student experience at Cleveland State

Emily Rauschert & Marnie Rodriguez, Cleveland State University, Cleveland, OH

35. Evolving the Culture of Biology: Developing New Strategies and Resources for Teaching Assistant - Teaching Professional Development (TA-TPD)

Kaleb Heinrich, University of Alabama, Tuscaloosa, AL; Stephanie Gutzler, Georgia State University, Atlanta, GA; Adam Chouinard, Oregon State University, Corvallis, OR; Mitra Asgari, University of MO, Columbia, MO; Diyala Shihadih, Portland State University, Portland, OR; Star Lee, UC Irvine, Irvine, CA

36. Beyond the Content: Embedding Metacognitive and Student Success Strategies into Every Class

Christine Patrum, Georgia State University Perimeter College, Decatur, GA

37. Variation is the spice of life: Introductory biology students' conceptions of allele

Jenni Momsen, North Dakota State University, Fargo, ND; Sofia Layfield, University of Michigan, Ann Arbor, MI

38. Incorporating student choice across multiple courses and assignments to increase engagement, agency, motivation, and critical thinking.

Katie Wiens, Bay Path University, Longmeadow, MA

39. Toward an understanding of student needs and barriers to success in STEM courses at three regional, primarily undergraduate institutions in WV

Sara Sawyer, Glenville State University, Glenville, WV; Aida Jimenez Esquilin, WVU Institute of Technology, Beckley, WV

40. Qualitative Analysis of Student Perspectives on Course-based Undergraduate Research Experiences (CUREs) Using Natural History Collections

Jean-Louis Bru, Jeremy L. Hsu, & Sonja Cwik, Chapman University, Orange, CA; Kathryn Weglarz, Westfield State University, Westfield, MA; Janice Krumm, Widener University, Chester, PA

41. Integrating Genomics into Your Biology Curriculum with User-Friendly Genomic Education Modules (GEMs)

Elizabeth Humphries, Allison Peters, & Ava M. Hoffman, Fred Hutch Cancer Center, Seattle, WA; Rosa Alcazar, Clovis Community College, Fresno, CA; Xiomara Chianelli, El Paso Community College, El Paso, TX; Stephanie Coffman, Clovis Community College, Clovis, CA; Karla Fuller, Guttman Community College, NY, NY; Andrew Lee, Georgetown University, Washington, D.C.

42. Fostering Science Identity Development in High School Mentored Research

Rebecca Van Tassell, Cary Institute of Ecosystem Studies, Millbrook, NY

43. Our Kokedama, Our Classroom, Our Planet

Khalid Uddin, Harold Washington College, Chicago, Illinois

44. From Classrooms to Campuses: Leveraging Biology Education Research to Strengthen K-12 & Higher Education Partnerships

Ashli Wright, Columbus State Community College, Columbus, Ohio; Anita Schuchardt, University of Minnesota, Minneapolis, Minnesota

45. The Impact of Cognitive Wrappers on Self-Efficacy and Metacognition among Community College Non-Biology Majors

Ranya Taqieddin, Saint Charles Community College, Saint Peters, MO; Murray Jensen, University of Minnesota, Twin Cities, Minnesota; Ron Gerrits, Milwaukee School of Engineering, Milwaukee, Wisconsin; Chasity O'Malley, Wright University, Dayton, Ohio; Suzanne Hood, Bishops University, Quebec, Canada; Kamie Stack, University of Minnesota, Twin Cities, Minnesota

46. Moon Gardens & Microbes: Increasing Student Diversity by Including Biological Projects in Colorado's NASA Space Grant Programing

Lynne Albert, Red Rocks Community College, Littleton, Colorado; James Koerner, Red Rocks Community College, Lakewood, Colorado

47. Accelerating STEM Success: How Front-Loaded Support Improves Degree Attainment For High-Achieving, Low-Income Undergraduates In STEM

Amanda Surman, Amy Gardiner, Jason Wiles, & John Tillotson, Syracuse University, Syracuse, NY

48. Motivating Evolutionary Sensemaking with Student-generated Questions

Julia Svoboda & Sugat Dabholkar, Tufts University, Medford, MA; Scott Benjamin, Bunker Hill Community College, Boston, MA

49. Genetic Knowledge And Attitudes Toward Genetic Testing Among Nigerian University Students

Olusegun Ogundele, Ijebu Ode, Ogun

50. Problem-Based Workshop To Promote Case Studies In Rural Biology Classrooms

Katherine Sharp, Beth Kania-Gosche, & Carly Carron, Missouri University of Science and Technology, Rolla, MO

51. Community Service, Outreach, And Emotional Wellbeing Drives Volunteer Motivation And Sustained Engagement In Citizen Science Projects

Meena Kharatmal, Kristi Becker, Jill Zipper, & Kristy Daniel, Texas State University, San Marcos, TX

STUDENT COMPETITION: BIOLOGY EDUCATION RESEARCH (GRADUATE STUDENTS)
52. Comparing Supports and Barriers to Graduate Teaching Assistant Professional Development Across Institutions

Heather Green, Alyssa Cotrell, & Grant Gardner, Middle Tennessee State University, Murfreesboro, TN; Eric Akuoko, St. John's University, Queens, NY; Gili Marbach-Ad, University of Maryland, College Park, MD; Kristen Miller, University of Georgia, Athens, GA; Elisabeth Schussler, University of Tennessee-Knoxville, Knoxville, TN

53. Assessing Motivational Shifts in Pre-Service Elementary Teachers (PSETs) Engaged in a Science CURE

Amandeep Kaur, Carrie Bucklin, Sunni Taylor, & Kristy Daniel, Texas State University, San Marcos, TX

54. Investigating Science Identity Development in an Introductory Biology Course-based Undergraduate Research Experience

Emma Throneburg & Rachel Pigg, University of Louisville, Louisville, Kentucky

55. A Systematic Review of the Barriers and Solutions to Access and Inclusion for STEM Undergraduates with Disabilities

Madison Greene, Mariel Pfeifer, & Jessica Stamm, University of Mississippi, Oxford, MS; Ariel Chasen & Maura Borrego, The University of Texas at Austin, TX

56. The Impact of Prior Communication Experience on Achieving Literacy Recommendations

Samantha Musso, Ally Hopman, Kirstin Parkin, & Erica Wehrwein, Michigan State University, East Lansing, MI

57. Student Interpretations of Instructor-generated Feedback in Introductory Biology Courses

Savannah Christenson & Jennifer Momsen, North Dakota State University, Fargo, ND

58. CUREing Doubt: Self-Efficacy and Imposter Syndrome in First-Year STEM Students

Lauren Slack, Carrie Jo Bucklin, & Jenn Idema, Texas State University, San Marcos, TX; Rachel Pigg, University of Louisville, Louisville, KY

59. CCW and Counterspaces Protect Science Identity & Self-Efficacy at an HBCU

Elizabeth Deimeke, Clark Atlanta University, Atlanta, GA; Renee Schwartz, GeorgiaStateUniversity, Atlanta, GA

60. How Research Experiences for Teachers Improve Evolutionary Biology Education

Nafeesah Scott, Michigan State University, Rutgers University, Newark, NJ; Jeffrey Conner & Ava Garrison, Michigan State University's Kellogg Biological Field Station, Hickory Corners, Michigan

61. From the Margins: An Autoethnography of an AuDhd, disabled educator

Amanda Goodwin & Mariel Pfifer, University of Mississippi, Oxford, MS;

62. Practicing Plurality: Decolonial, Community-based Research as Relational Praxis with Indigenous and Non-Indigenous Collaborators

Nicole Chlebek, Bryan Dewsbury, & Catherine Guinovart, Florida International University, Miami, FL; Hilario Poot Cahun, Universidad Intercultural Maya de Quintana Roo, Jose Maria Morelos, Quintana Roo, Mexico

63. Pre-service Science Teachers' Epistemic Beliefs about Biotechnology

Selvet Ece Genek & Lin Ding, The Ohio State University, Columbus, OH

64. Active Learning Through Reflection Journals in Introductory Biology

Christel Whitehead, Peggy Biga, & Mary Ann Bodine Al-Sharif, University of Alabama Birmingham, Birmingham, AL

65. Understanding how experts view tree diagrams by using eye-tracking technology

Mallika Saha, Kristy Daniel, Tiara Thompson, Tina Marcroft, & Kyle Tucker, Texas State University, San Marcos, TX; Regis Komperda, San Diego State University, San Diego, CA

66. Assessing Everyday Thinking About Organismal and Relatedness: Piloting the Structural Metaphor and Organism Sorting Strategy Instrument (SMOSSI)

Tiara Thompson, & Mallika Saha, Texas State University, San Marcos, TX

STUDENT COMPETITION: BIOLOGY EDUCATION RESEARCH (UNDERGRADUATE STUDENTS)

67. How Do Students with Disabilities Experience Inclusion in Introductory Biology and Chemistry Courses?

Charis Barker, Destiny Bush, Trish Nguyen, & Abby Stine, University of Mississippi, Oxford, MS; Brittlend DeKorver, Grand Valley State University, Allendale, MI

68. Visual Literacy as a Core Competency in Undergraduate Biology Curricula

Alena John & Anna Hiatt, Hastings College, Hastings, NE

69. Question Framing in Biology Tests: Student Preferences and Perceptions

Alexander Chimera & Suann Yang, SUNY Geneseo, Geneseo, NY; Jeremy L. Hsu, Chapman University, Orange, CA

STUDENT COMPETITION: MENTORED STUDENT RESEARCH (HIGH SCHOOL AND UNDERGRADUATE STUDENTS)

70. Decoding The Dark Proteome: Deep learning-enabled discovery of druggable enzymes in Wuchereria bancrofti

Shawnak Shivakumar, Menlo-Atherton High School, Menlo Park, CA; Jefferson Hernandez, Rice University, Houston, TX

71. Planting can serve as a sustainable strategy for promoting an eco-friendly soil biome and helping to prevent the emergence of antibiotic-resistant bacteria

Mariam Azam, William Mason High School, Mason, OH; Bara Sarraj, Harold Washington College, Chicago, IL

72. ESKAPE Antibiotic Resistance: Identification of Environmental Microorganisms Producing Antibiotic Activity Against Multiple Drug-Resistant Pathogens

Nathan Krugman, Blythe Janowiak, Imandi Mendis, Julia Gaugel, & Richard Meadows, Saint Louis University, Saint Louis, MO

73. Anesthesia on Yeast: The Effect of Lidocaine Cream on the Viability of S. cerevisiae Cells and its Portrayal of the Impact of Anesthesia on Human Health

Seoyoung (Trinity) Yun & Philip Allen, Interlake High School, Bellevue, Washington; Interlake High School, Bellevue, Washington

74. Dietary Bioluminescence Modulates Morphological and Fluorescent Phenotypes in C. elegans

Ethan George & Cathy Farrar, Marquette High, Chesterfield, MO

75. SpCas9 Endonuclease Based Genetic Mutational Repair with gRNA Implementation on F508del in Cystic Fibrosis

Aarush Sudamalla, Charter School of Wilmington, Wilmington, Delaware; Krishna Priya Narra, Christiana Care, Newark, Delaware

76. Coupling historical datasets with geospatial software to assess distribution patterns and climate effects on plants and pathogens

Jenna Wood, Maria Beatriz de Souza Cortez, & R. Drew Sieg, Truman State University, Kirksville, MO

7:30AM – 8:30AM**NABT BioClub Breakfast****Grand Ballroom B & C · Special Event (Tickets Required) (60 min) · GA**

Every year, the NABT BioClub supports students at K-12 schools, community colleges, and informal learning organizations throughout North America. Join us to share what your club is doing or learn how to start a BioClub Chapter of your own!

Sponsored by **CAROLINA**
UNLEASH LEARNING™

7:30AM – 8:45AM**NABT Committee Meetings****Pegram · Committee Meeting (75 min) · GA**

Learn more about the different volunteer opportunities available at NABT. Committee Chairs and Regional Coordinators will highlight ways to get involved that fit your interests and schedule. Help support the programs that support you as a leader in life science education.

See page 13 for details about the different NABT committees.

8:00AM – 10:00AM**NABT & SABER Midwest Biology Education Poster Session & Coffee Break****Midway West · Instructional Strategies · Special Symposium (120 min) · 2Y, 4Y, GA**

The NABT Poster Session highlights best practices, programs, and scholarship in three distinct categories: general strategies for teaching biology, the scholarship of teaching, and mentored student research. This year, SABER Midwest will also be presenting posters in discipline-based education research (DBER). Student presenters are eligible for two competitions, and winners will be announced before the closing general session.

See complete listing on pages 44-47.

9:00AM – 11:00AM**1794-121546 2025 AP Life Science Symposium: Quick Hits for Your AP Classroom****Regency A · AP Science · Symposium (120 min) · AP**

Designed for AP teachers by AP teachers, this session will highlight tips and tricks, ready-to-go activities, syllabus-aligned lessons, and other ideas in short 10-minute presentations. There will also be time for networking with other AP Biology and AP Environmental Science Teachers.

Brad Williamson, University of Kansas (retired), Lawrence, KS; Jacqueline Washington, Alliance University, New York, NY; Jim Lane, Mahtomedi High School, Mahtomedi, MN; Joanne Jezequel, Kennesaw Mountain High School, Kennesaw, GA; Kirstin Milks, Bloomington High School South, Bloomington, IN; Elizabeth Cowles, Eastern Connecticut State University, Willimantic, CT; Mark Little, Broomfield High School (retired), Arvada, CO; and Paul Strode, Fairview High School, Boulder, CO; Valerie May, Woodstock Academy, Woodstock, CT

9:00AM – 10:15AM**1794-117393 Microsafari - Inspire the "Micronaut" in Your Students by Exploring the Ecology and Cell Biology of their Local Microcosmos!****Frisco & Burlington (2nd Floor) · General Biology · Demonstration (75 min) · ELEM, ML, HS**

Lead your students on a Microsafari where they can learn aspects of microscopy, cell anatomy & physiology, homeostasis, trophic levels, classification, field studies, and scientific communication – all in one adventurous and flexible project.

John S. Mead, St. Mark's School of Texas, Dallas, TX

Science Communication Lab Presents**1794-120920 Observation as a Superpower: A Workshop to Inspire Curiosity, Inquiry, and Critical Thinking in Your Students****Grand A · General Biology · Hands-on Workshop (75 min) · ML, HS, 4Y**

Reignite your love for discovery in this interactive workshop featuring OBSERVER – our new documentary. Learn to use simple everyday tools to encourage students' deeper curiosity, inquiry, and critical thinking in your classroom.

Shannon Behrman, Science Communication Lab, Berkeley, CA; Rosa Vegaulla, Science Communication Lab, San Diego, CA; and Lee Meadows, Science Communication Lab, Birmingham, AL



Abington Heights High School, Clarks Summit, PA
 Aiken County Career and Technology Center, Warrenville, SC
 Arcadia High School, Phoenix, AZ
 Archbishop Curley High School, Baltimore, MD
 Arroyo High School, San Lorenzo, CA
 Athens High School, Troy, MI
 Athens High School, Athens, IL
 The Barstow School, Kansas City, MO
 Bethlehem High School, Bardstown, KY
 Birmingham Community Charter High School, Lake Balboa, CA
 Bishop Garcia Diego High School, Santa Barbara, CA
 Bloomington High School South, Bloomington, IN
 Brentwood Academy, Brentwood, TN
 Butler Community College, El Dorado, KS
 Cabarrus Kannapolis Early College High School, Concord, NC
 Canadian Valley Technical Center, OK
 Caney Valley High School, Ramona, OK
 Cardinal Gibbons High School, Raleigh, NC
 Carrboro High School, Carrboro, NC
 Castle Park High School, Chula Vista, CA
 Cedarcrest High School, Duvall, WA
 Central Carolina Technical College, Sumter, SC
 Central Falls High School, Central Falls, RI
 Central Magnet School, Murfreesboro, TN
 Chelan High School, Chelan, WA
 Chester High School, Chester, PA
 Clayton High School, Clayton, MO
 Colonia High School, Colonia, NJ
 Coronado High School, Colorado Springs, CO
 Cuyohoga Community College, Macedonia, OH
 Darnell-Cookman School of the Medical Arts, Jacksonville, FL
 Detroit Country Day Upper School, Beverly Hills, MI
 DeVry Advantage Academy, Chicago, IL
 Divine Savior Holy Angels High School, Milwaukee, WI
 Dora R-III School, Dora, MO
 Dougherty Valley High School, San Ramon, CA
 El Centro College, Dallas, TX
 Emergence Academy, Springfield, MA

Emmett High School, Emmett, ID
 Fairhaven High School, Fairhaven, MA
 Florence Freshman Center, Florence, AL
 Florida SouthWestern State College, Naples, FL
 Freedom High School, Freedom, WI
 Frontier Regional School, S Deerfield, MA
 Georgia State University Perimeter College, Decatur, GA
 Gillette College, Gillette, WY
 Grandville High School, Grandville, MI
 Greater Lowell Technical High School, Tyngsborough, MA
 Greater New Bedford Regional Vocational Technical High School, New Bedford, MA
 Greely High School, Cumberland Center ME
 Greensburg Salem High School, Greensburg, PA
 Hampton Roads Academy, Newport News, VA
 Harmony School in Innovation, Katy, TX
 Healdsburg High School, Healdsburg, CA
 Hillsboro High School, Hillsboro, OR
 Hilltop High School, Chula Vista, CA
 Holt High School, Holt, MI
 IEA Institute for Education Advancement, Pasadena, CA
 Interboro High School, Prospect Park, PA
 Julia R Masterman School, Philadelphia, PA
 Kenmore West High School, Buffalo, NY
 Kent County High School, Worton, MD
 Kettle Run High School, Nokesville, VA
 Kohler High School, Kohler, WI
 Lake Metroparks, Concord, OH
 Laurence Manning Academy, Manning, SC
 Lexington High School, Mansfield, OH
 Louisiana School for Math, Science and the Arts, Natchitoches, LA
 Martin Luther College, New Ulm, MN
 Mary Persons High School, Forsyth, GA
 Marysville High School, Marysville, KS
 McDowell Intermediate High School, Erie, PA
 Metropolitan Community College, Omaha, NE
 Midland Park High School, Midland Park, NJ
 Mid Michigan College, Harrison, MI
 Minnetonka High School, Minnetonka, MN
 Morganton, NC West Mifflin Area High School, West Mifflin, PA
 Moscow High School, Moscow, ID
 Mount Abraham Union High School, Bristol, VT
 Nassau Community College, Garden City, NY
 Northampton Area High School, Northampton, MA
 Northwest Mississippi Community College, Oxford, MS
 Olivet Nazarene University, Bourbonnais, IL

Oologah High School, Oologah, OK
 Palm Tree School, Fairfax, VA
 Perkins High School, Sandusky, OH
 Pike High School Freshman Center, Indianapolis, IN
 Pikeview High School, Princeton, WV
 Pinecrest High School, Southern Pines, NC
 Putnam City High School, Oklahoma City, OK
 Riverside City College, Riverside, CA
 Riverside High School, Leesburg, VA
 S.U Eugenio María de Hostos, Garrochales, PR
 Saint Ignatius High School, Cleveland, OH
 Seabury Hall, Makawao, HI
 Seneca East High School, Attica, OH
 Sherando High School, Winchester, VA
 Sibley East Middle and High School, Arlington, MN
 Skyline High School, Sammamish, WA
 Snow College, Ephraim, UT
 Southeast Community College, Lincoln, NE
 South Central Jr Sr High School, Elizabeth, IN
 South Garner High School, Garner, NC
 Southern Wells High School, Poneto, IN
 St. Andrew's Episcopal School, Potomac, MD
 St. Clair High School, St. Clair, MI
 State Library of PA, Lykens, PA
 Stillwater High School, Stillwater, OK
 Stouffville District Secondary School, Whitchurch-Stouffville, ON, Canada
 The Summit County Day School, Cincinnati, OH
 Sunlake High School, Land O'Lakes, FL
 Taylor University, Upland, IN
 The Governor's School at Innovation Park, Manassas, VA
 Tiffin Columbian High School, Tiffin, OH
 Troy High School, Troy, MI
 Unionville High School, Kennett Square, PA
 University Christian High School, Hickory, NC
 University of Lynchburg, Lynchburg, VA
 Ursuline Academy, Dedham, MA
 Vincennes University, Vincennes, IN
 Visitation Academy - Saint Louis, St. Louis, MO
 Walters State Community College, Rutledge, TN
 Westdale Secondary School, Hamilton, Ontario
 Western Piedmont Community College, Morganton, NC
 West Mifflin Area High School, West Mifflin, PA
 Wheeling Park High School, Wheeling, WV
 Worthington Christian High School, Worthington, OH

The mission of the NABT BioClub is to recruit, support, nurture, and promote students who have an interest in biological sciences for personal reasons, academic preparation, the betterment of society, and possible career opportunities by providing guidance, resources, and activities to meet these goals.

Look for the BioClub logo to indicate recommended articles for NABT BioClub members. If you are interested in forming a chapter of the NABT BioClub, contact NABT at office@nabt.org.

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9:00AM – 10:15AM CONT.

1794-117373 Engage Your Class and Promote Collaborative Learning Using Guided Inquiry and Cooperative Quizzes Using Digital Technology**Illinois Central & New York Central (2nd Floor) · Anatomy & Physiology · Demonstration (75 min) · HS, 2Y, 4Y**

This session will demonstrate an online learning tool that implements student roles, such as reader and recorder, during cooperative quizzes and guided inquiry lessons. The demonstration will feature human anatomy and physiology (A&P), but may be used with any discipline.

Murray S. Jensen, University of Minnesota, New Brighton, MN, and Aravind Pochiraju, LRNR, San Francisco, CA

1794-117489 Multilingual Learner Science Boost!**Midway Suite 1 & 2 · Science Practices · Demonstration (75 min) · ML, HS, GA**

Want to complete rigorous experiments with your multilingual learners? Learn about successful strategies and structures used for all levels of learners, increasing accessibility and creating an environment where hands-on learning is possible and preferred!

Kirsten Salonga, Fairfax County Public Schools, Alexandria, VA

1794-117503 Real Data for Real Classrooms: Free Resources to Supplement Any Science Curriculum**Midway Suite 5 · Science Practices · Hands-on Workshop (75 min) · ML, HS, GA**

Students need opportunities to work with authentic data, but developing data-based learning activities is challenging. We will share free, classroom-ready resources made through educator-scientist partnerships from four organizations that make authentic data accessible for students.

Wendy Johnson, National Center for Science Education, Kentwood, MI

1794-117383 Development of a Student-Focused Schoolwide Sustainability Program: The Raider Sustainability Corps**Midway Suite 6 · Ecology / Environmental Science / Sustainability · Hands-on Workshop (75 min) · ELEM, ML, HS**

Join us to learn about implementing an all-school sustainability program that spans grade levels, disciplines, and clubs. Highlights include a battery-powered concert, trash-to-treasures art installation, and a bike drive.

Marjorie MacGregor, The Pembroke Hill School, Kansas City, MO

1794-117506 Teaching with Authentic Data & Open Science: Opportunities, Best Practices, and Outcomes**Midway Suite 7 & 8 · Curriculum Development · Hands-on Workshop (75 min) · HS, 2Y, 4Y**

At this interactive workshop, attendees will learn about principles of designing inquiry-based teaching activities with large authentic datasets, especially open data, experience a model activity, and brainstorm uses in their own classes.

Kaitlyn Casimo, Allen Institute, Seattle, WA

1794-117407 The ABCs of Visual Literacy and Graphing**Midway Suite 9 · Science Practices · Hands-on Workshop (75 min) · ML, HS, GA**

Graphs are an important part of science, visual literacy, and science education. Discover new ideas to engage students in constructing and interacting with graphs and other data more effectively.

Mark Little, Broomfield High School (retired), Arvada, CO

1794-117089 Biotech Stories Too New For Textbooks: The HudsonAlpha Guidebook**Midway Suite 10 · General Biology · Demonstration (75 min) · ML, HS, 2Y**

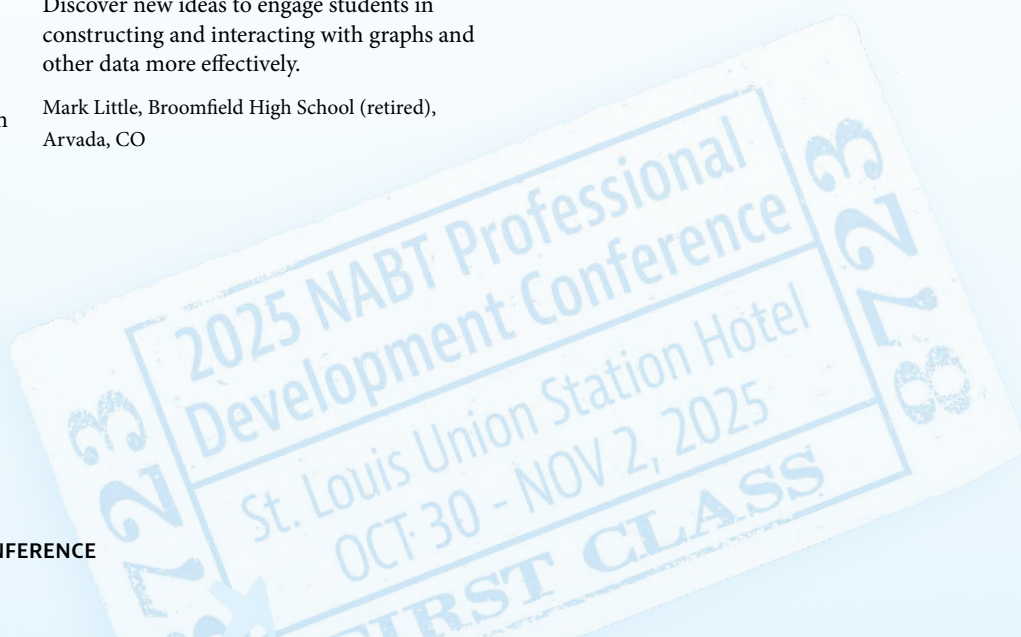
Meet *The HudsonAlpha Guidebook*, a free “too new for textbooks” resource written in student-friendly language. This session highlights stories from the 2025 edition and how the Guidebook can bring cutting-edge genomics to your classroom.

Kelly East and Madelene Loftin, HudsonAlpha Institute for Biotechnology, Huntsville, AL

1794-117356 Transforming Two-Year College Biology Education: Engaging, Accessible, and Research-Driven Approaches**Regency B · Instructional Strategies · Symposium (75 min) · 2Y, GA**

Two-year colleges connect diverse students to opportunity. This panel explores how faculty can combine engaging teaching, accessible resources, and research experiences to support student success and prepare them for transfer or careers in biology-related fields.

Heather Zimble-DeLorenzo, Georgia State University, Decatur, GA; Melanie Lenahan, Raritan Valley Community College, Branchburg, NJ; and Adronisha Frazier, University of Minnesota-Duluth, Duluth, MN



9:00AM – 10:15AM CONT.

HHMI BioInteractive Presents**1794-119802 Exploring Systems Across Scales with HHMI BioInteractive: Regulation from the Human Body to Planet Earth****Regency C · Science Practices · Hands-on Workshop (75 min) · HS, 2Y, 4Y**

We'll explore BioInteractive resources that help students use systems modeling to understand the regulation of blood-glucose and global climate, revealing how regulation is essential for sustaining homeostasis and dynamic stability.

Jeannie Long, Tennessee Wesleyan University, Athens, TN, and Steven Rogg, Coherent Learning Design, Lindenhurst, IL

10:30AM – 11:00AM

1794-117522 Spiraling and Scaffolding Scientific Argumentation in AP[®] Biology**Frisco & Burlington (2nd Floor) · AP Biology · Hands-on Workshop (30 min) · HS**

This session aims to enhance teachers' skills to instruct on scientific argumentation using the Claim-Evidence-Reasoning strategy. We'll explore scaffolding techniques and ways to integrate this structured approach throughout the curriculum.

Kristi Phillipppe, Marion High School, Marion, IN

10:30AM – 11:00AM CONT.

Science Communication Lab Presents**1794-120919 Lesson Plan Demo: HS Educators Use Free Videos to Seed 3D Learning****Grand A · AP Biology · Demonstration (30 min) · ML, HS, 2Y**

Discover how to elevate your lessons and engage your students with free, online multimedia. Learn from fellow educators as they showcase how they have used videos to enhance their course material in innovative lesson plans.

Dan Vanden Heuvel and Renee Haines, Science Communication Lab, Berkeley, CA

1794-121268 Implementing Responsible Conduct of Research (RCR) Education in an Undergraduate Lab Course**Illinois Central & New York Central (2nd Floor) · Instructional Strategies · Demonstration (30min) · 2Y, 4Y**

A module about the use of animals in research was implemented in a Developmental Biology lab. The impact of the module was assessed through pre- and post-surveys.

Stefanie Leacock, Lyon College School of Dental Medicine, Batesville, AR

1794-117455 Genomics Education Modules (GEMs): Embedding R Programming Modules for Cloud-based Research in Gen Bio I**Midway Suite 1 & 2 · Genetics · Demonstration (30 min) · 2Y**

This session highlights short undergraduate research modules in cloud computing skills, including coding. Attendees will be introduced to customizable OER resources and tips for implementing genomic data science skills using only laptop computers!

Karla Fuller, Guttman Community College (CUNY), New York, NY

1794-117499 Engaging Students in Hominid Evolution**Midway Suite 3 & 4 · General Biology · Hands-on Workshop (30 min) · HS, 2Y, 4Y**

In this hands-on activity, students examine hominid skulls to investigate evolution and hone critical thinking skills. Through comparison and measurement of physical skull features, students apply scientific reasoning and determine the correct evolutionary order.

Diane Elaine Day, Georgia Southern University - Perimeter College, Covington, GA

1794-117406 Using the Photovoice Method to Assess Comprehension in a Non-major Science Class**Midway Suite 5 · General Biology · Hands-on Workshop (30 min) · HS, 2Y, 4Y**

This session discusses how the Photovoice research method can be used to assess student comprehension in a manner that allows students to communicate learning using a non-traditional response, utilizing components of STEAM and UDL.

Heather Minges Wols, Columbia College-Chicago, Chicago, IL

1794-117312 Bacteriophage Bioinformatics: Learn How to Annotate a Genome From a Phage that Your Students Discover**Midway Suite 6 · Microbiology & Cell Biology · Hands-on Workshop (30 min) · 2Y, 4Y**

Various tools will be presented to allow participants to annotate a genome by hand. This includes identifying the transcription start site of open reading frames as well as assigning a function to their putative products.

James Godde, Monmouth College, Monmouth, IL

10:30AM – 11:00AM CONT.

1794-117150 The Power of Storytelling: Engaging and Inspiring Students in the Classroom**Midway Suite 7 & 8 · Instructional Strategies · Demonstration (30 min) · GA**

This session explores how storytelling can make science more engaging and accessible. Educators will learn techniques to craft compelling narratives that illustrate complex concepts, spark curiosity, and enhance student understanding through real-world connections and discovery.

Tanya Quiroz, Galen College of Nursing, Alcolu, SC

1794-117560 Whey Protein is Legen'dairy' in the Classroom!**Midway Suite 9 · General Biology · Hands-on Workshop (30 min) · HS, 2Y**

This session will introduce you to a short storyline incorporating whey protein, dairy, macromolecules, and homeostasis that you can instantly use in your biology classes.

Erin Snelling, Hallsville High School, Columbia, MO

1794-117434 Molecular Harvest**Midway Suite 10 · Biotechnology · Hands-on Workshop (30 min) · HS**

Go beyond GMOs to discover the power of biotech tools and their impact on modern food production. How can genomic advances address and solve existing and predicted challenges in feeding the world?

Madelene Loftin and Jennifer Hutchison, HudsonAlpha Institute for Biotechnology, Huntsville, AL

BioBrain Presents**1794-116666 An Internationally Popular Edtech Curriculum and Instruction Tool Now Available for Use in U.S. Schools****Midway Suite 11 · AP Biology · Demonstration (30 min) · HS**

Join us for an engaging session showcasing BioBrain, an innovative edtech curriculum and instruction tool now available for use in US schools, especially those running AP and IB DP Biology programs.

Caroline Cotton, BioBrain, Mornington, Australia, and Paul Strode, Fairview High School, Boulder, CO

1794-117355 Teaching to Lead: Pathways to National Engagement for Two-Year College Faculty**Regency B · Instructional Strategies · Demonstration (30 min) · 2Y**

This session shows how national engagement starts in the classroom and grows into leadership in disciplinary organizations. It shares best practices and case studies to help two-year college faculty build aligned, sustainable leadership routes.

Sheela Vemu, Waubensee Community College, Sugar Grove, IL; Paulette S. Reneau, Georgia State University, Dunwoody, GA; Cleo E. Rolle, Connecticut State Community College, Hartford, CT; and Stacey Kiser, Lane Community College, Eugene, OR

HHMI BioInteractive Presents**1794-119803 Unleashing Curiosity and Exploring Phenomena with HHMI BioInteractive and Three-Dimensional Learning Cards****Regency C · General Biology · Hands-on Workshop (30 min) · ML, HA, GA**

Explore how powerful images paired with BioInteractive's three-dimensional learning cards can spark curiosity and deepen understanding of biology. During this engaging, hands-on session, teachers will unpack phenomena using the science practices and crosscutting concepts.

Alexis Black, Explore Academy Las Cruces, Las Cruces, NM

11:15AM – 11:45AM

1794-117129 Using Antibiotic Resistance Prevention Strategies to Teach Evolution**Illinois Central & New York Central (2nd Floor) · Evolution · Hands-on Workshop (30 min) · HS, 2Y, 4Y**

For this activity, students create infographics on antibiotic resistance prevention strategies to apply their understanding of evolution to a real-world example. Attendees participate in the activity, have access to materials, and view student work.

Andrea Bierema, Michigan State University, East Lansing, MI

11:15AM – 11:45AM CONT.**1794-117293 Community Forum for Developing a Learning Framework for Introductory Biology Publications in CourseSource****Grand A · Curriculum Development · Hands-on Workshop (30 min) · HS, 2Y, 4Y**

The peer-reviewed journal for biology lessons, CourseSource, is developing a learning framework for its Introductory Biology section. Together, we will develop a list of important learning goals for general biology education in today's environment.

Rachel Pigg, University of Louisville, Louisville, KY

1794-117535 Pablo Escobar's Hippos as an Anchoring Phenomenon for Teaching Ecology and Systems Modeling**Midway Suite 3 & 4 · Instructional Strategies · Demonstration (30 min) · HS, 2Y, 4Y**

Learn how to use Pablo Escobar's hippos as a phenomenon to teach ecology and systems modeling! We will model how hippos affect their native environment and predict their impacts on their introduced range in Colombia.

Emily Schmidt, The Bronx High School of Science, Bronx, NY

1794-117500 Sea Lamprey Paper Dissection Model**Midway Suite 5 · General Biology · Demonstration (30 min) · HS, 2Y, 4Y**

Construct a sea lamprey paper dissection model, appropriate for middle school through university.

Teresa McElhinny, Michigan State University, East Lansing, MI

1794-117464 Chickens in the Classroom: Using Day-old Chickens to Investigate Innate Behaviors in Animals**Midway Suite 6 · General Biology · Demonstration (30 min) · HS**

Using day-old chickens in a biology class as a scientific phenomenon will encourage student engagement, develop critical questioning skills, allow for real-life data analysis, and arguing from evidence as they investigate developing animal behaviors.

Daniel J. Shafer, Lincoln Public Schools, Lincoln, NE

1794-117411 Urban Heat Islands & Historical Roots: An Interdisciplinary Approach to Climate Education**Midway Suite 11 · Ecology / Environmental Science / Sustainability · Paper (30 min) · HS, 4Y, GA**

This session explores the interdisciplinary process of producing a documentary on Philadelphia's urban heat islands, engaging students in experiential learning that integrates climate science, historical analysis, and community storytelling to address equity-focused environmental challenges.

Hilton Masaharu Oyamaguchi, Elizabeth Figiel, and Glenda Garcia, Chestnut Hill College, Philadelphia, PA

1794-117013 Model Organisms & Authentic Science: Exploring Cells, Behavior, and the Impact of Substance Abuse with ASSET**Regency A · Microbiology & Cell Biology · Hands-on Workshop (30 min) · ELEM, ML, HS**

Participants will conduct modified lab activities to see how ASSET can be used in their classroom to address topics like cell parts and processes, and the effects of smoking, vaping, and alcohol on living cells. Includes a FREE lending equipment library for your classroom.

Alexandra Forgerson, Washington University in St. Louis, St. Louis, MO

11:15AM – 12:30PM**1794-117559 Dirt Life: Evaluating Human Impacts on the Environment****Frisco & Burlington (2nd Floor) · Ecology / Environmental Science / Sustainability · Demonstration (75 min) · ML, HS**

Dirt Life helps students investigate human impacts on local ecosystems by observing soil invertebrate populations! This simple, cost-effective, and low-impact protocol raises environmental awareness and provides a foundation for stewardship inquiry!

Jennifer Hartley, Botanical Society of America, St. Louis, MO

1794-117056 Modeling and Using a Lateral Flow Assay (LFA) to Detect a Human Breast Cancer Biomarker**Midway Suite 1 & 2 · Biotechnology · Hands-on Workshop (75 min) · HS, 2Y, 4Y**

Measure a biomarker of human health using the lateral flow assay. Use models to understand how the structure and function of antibodies is used to quickly measure the presence of diseases like cancer or COVID-19.

N. Jan Chalupny, Institute for Systems Biology, Seattle, WA

1794-117427 Inclusive Biology Teaching Materials and Research on Their Effectiveness**Midway Suite 9 · JEDI / Inclusive Teaching Practices · Demonstration (75 min) · ML, GA**

Participate in inclusive biology activities and learn how to teach them. Discuss evidence about the effectiveness and impacts of these approaches from real classroom testing. Let's make science more welcoming for girls and LGBTQ students!

Charlie Blake and Onyebuchi Ewa, Southern Illinois University-Edwardsville, Edwardsville, IL

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11:15AM – 12:30PM CONT.**1794-117420 "Dude, are you catching my drift?" Using Dicamba Drift to Drive Home Engineering Standards, Sustainable Farming Practices, and Acid-Base Chemistry: Lessons for an Environmental Science or Chemistry Classroom****Midway Suite 10 · AP Environmental Science · Hands-on Workshop (75 min) · HS, 2Y, 4Y**

We provide a practical application of Acid-Base chemistry in a student-driven inquiry lab with storylines that investigate the role of engineers as they develop tools to limit Dicamba drift.

David Ganey, Maplewood Richmond Heights High School, Maplewood, MO

1794-117399 How Do Rodents Survive in the Desert? Using Phenomena-based 3D Learning to Drive Student Sensemaking in AP Biology**Regency B · AP Biology · Hands-on Workshop (75 min) · HS, 2Y, 4Y**

Discover how to enhance AP Biology with phenomena-based storylines that make curriculum topics relevant and fun! Acquire skills to integrate student questions, science practices, and inquiry-driven lessons to increase student engagement and deepen understanding.

Noel Pauller, Angela Tatum, & Joshua Anoff, Anne Arundel County Public Schools, Annapolis, MD; and Lisa England, Washington Community High School District 308, Washington, IL

HHMI BioInteractive Presents**1794-119804 Using Data to Model Human Impacts on Climate Change with HHMI BioInteractive****Regency C · Ecology / Environmental Science / Sustainability · Hands-on Workshop (75 min) · HS, 2Y, GA**

Participants will explore free, ready-to-use resources to engage students in analyzing patterns in atmospheric carbon dioxide data and using this evidence to construct an explanation for how human activities contribute to climate change.

Amy Fassler, Marshfield High School, Marshfield, WI, and Elise Cooksley, Mount Si High School, Snoqualmie, WA

11:30AM – 2:00PM**NABT Honors Luncheon****Grand B & C · Special Event (Tickets Required) · GA**

NABT is proud to honor the *2025 NABT Award* recipients during this celebratory event. We will recognize exceptional biology teachers from all levels, and everyone is welcome to join us to congratulate these remarkable professionals.

2:00PM – 2:30PM**Terra Science and Education Presents****1794-121952 Field Studies in the Bahamas-Travel to the Gerace Research Institute (GRI) in San Salvador to Learn How to Set Up Your Own Trip With Students****Grand A · International / Global Education · Demonstration (30 min) · GA**

Travel to the Bahamas for a week, gaining knowledge and skills needed to work with Terra, creating a class and trip for students that is safe, exciting, and rigorous. Room and board is free.

George J Wolff, Terra Science and Education, Walworth, NY

1794-11755 Acting Out in Biology**Midway Suite 3 & 4 · General Biology · Hands-on Workshop (30 min) · HS, 2Y**

Come act out in biology! Each participant becomes a component of four physiological processes using kinesthetic learning. Fun, fast-paced, and engaging – teachers will leave with protocols and card sets for teaching these processes.

Brenda Royal, Central Magnet School (retired), Murfreesboro, TN

1794-116660 Form Fits Function**Midway Suite 9 · General Biology · Hands-on Workshop (30 min) · ML, HS**

In this classroom activity, teachers/students go from genotype to amino acid sequence and then finally to the functional protein. I promise you will fold under pressure.

Jeff Grant, Downers Grove North High School, Downers Grove, IL

2:00PM – 3:15PM

NABT 2SLGBTQIA+ Affinity Group**Conductor Room · JEDI / Inclusive Teaching Practices · Symposium (75 min) · GA**

Network with fellow (Two Spirit, Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual, plus) practitioners! This event is open to all levels who self-identify as 2SLGBTQIA+ (A does not stand for Ally/Aligned for this session)

1794-117571 Biology in the Real World: Helping Students Connect Content Through Phenomena-Based Learning**Frisco & Burlington (2nd Floor) · Curriculum Development · Hands-on Workshop (75 min) · ML, GA**

This workshop provides attendees with a phenomena-based planning template and supported work time for developing interdisciplinary biology instruction that promote engaging, experience-driven learning aligned with NGSS, OpenSciEd, and other curricula.

Takumi Sato, Knowles Teacher Initiative, Moorestown, NJ, and Anthony Stetzenmeyer, Belleville High School, Belleville, MI

1794-117494 The iEMBER Network: Building Unique Collaborations to Solve Challenges in Biology Education**Illinois Central + New York Central (2nd Floor) · JEDI / Inclusive Teaching Practices · Symposium (75 min) · 2Y, 4Y, GA**

Come and learn as the iEMBER network shares work we completed over the last 10 years in building collaborations among biologists, biology education researchers, policy advocates, and social scientists to address challenges in biology education.

Michael Edward Moore, University of Arkansas, Little Rock, AR; Jana Marcette, Montana State University Billings, Billings, MT; Richard Harvey, St. Louis University, St. Louis, MO; and Candice Idlebird, Claflin University, Orangeburg, SC

1794-117463 Modifying & Creating Socio-Scientific Case Studies**Midway Suite 5 · Curriculum Development · Hands-on Workshop (75 min) · HS, 2Y, 4Y**

To leverage students' desire to engage in change, we share our processes for modifying and creating authentic case studies to integrate socio-scientific issues (SSI) and biology content to enhance scientific reasoning.

Carrie Jo Bucklin, Texas State University, San Marcos, TX; Laurie Mauger, 21st Century Partnership for STEM Education, Wayne, PA; and John Ruppert, Fordham University, New York, NY

1794-117558 Project Leadership: A Tool for Enhancing Teamwork in the Classroom**Midway Suite 6 · JEDI / Inclusive Teaching Practices · Demonstration (75 min) · HS, 2Y, 4Y**

Come learn how to improve student collaboration! The Project Leadership App helps students develop leadership skills by focusing on team roles and peer feedback. Instructors also gain insight into the inner workings of each team!

Laurel Lorenz, Princeton University, Philadelphia, PA; Stacey Kiser, Lane Community College, Eugene, OR; and Sheela Vemu, Waubesa Community College, Aurora, IL

1794-119580 NABT Partnerships Can Enhance Biology Education Grants**Midway Suite 7 & 8 · Instructional Strategies · Symposium (75 min) · 2Y, 4Y**

Join experienced biology educators to learn strategies for successfully integrating NABT resources into funded research and instructional projects.

This interactive Q&A offers insights, examples, and advice to strengthen grants through NABT partnerships.

Kristy L. Daniel, Texas State, San Marcos, TX; Anna Hiatt, Hastings College, Hastings, NE; Vedham Karpakakunjaram, Montgomery College, Rockville, MD; and Gordon Uno, University of Oklahoma, Norman, OK

1794-117457 More Than One Unit: Integrating Authentic Ecology Data Throughout Biology**Midway Suite 10 · Instructional Strategies · Hands-on Workshop (75 min) · ELEM, ML, HS,**

Bring your laptop to learn how data sets can be used in biology courses to infuse authentic, high-interest data about our natural world.

Rebecca Van Tassell, Cary Institute of Ecosystem Studies, Millbrook, NY

1794-117445 Anchored Inquiry Learning: Designing Meaningful Instruction to Explore Phenomena and Problems**Regency A · Instructional Strategies · Hands-on Workshop (75 min) · HS, GA**

Experience how the BSCS Anchored Inquiry Learning instructional model builds on the 5Es to design learning experiences that motivate students to engage with real-world phenomena and problems in biology!

Cindy Gay, BSCS Science Learning, Steamboat Springs, CO

HHMI BioInteractive Presents**1794-119805 Take a Deep Breath: Exploring Oxygen's Journey with HHMI BioInteractive****Regency C · General Biology · Hands-on Workshop (75 min) · HS, 2Y,**

Workshop participants will explore BioInteractive's "Biology of Oxygen" resource, which takes students on a journey tracing oxygen's path from the atmosphere to our cells, and model how different variables affect oxygen levels in the body.

Kaitlin Bonner, St. John Fisher University, Rochester, NY, and Tim Guilfoyle, Merancas Middle College High School, Huntersville, NC

2:45PM – 3:15PM

**1794-117466 Waste to Wonder:
Exploring Fungal
Bioremediation in a Classroom**

**Midway 1 & 2 · Ecology / Environmental
Science / Sustainability · Demonstration
(30 min) · ML, HS, GA**

This hands-on lab activity exploring fungal bioremediation using oyster mushrooms connects classroom science to sustainability goals. No prior experience needed. Scalable to large class sizes. A unique project merging experimentation, data literacy, and global impact.

Tatiana Kuzmenko, Loyola Marymount University, Los Angeles, CA

**1794-117557 Biology Classroom
Burnout Mitigation**

**Midway 3 & 4 · Instructional Strategies ·
Demonstration (30 min) · ML, HS, GA**

Lower emotional volatility in your classes by predicting yearly “ignition points” (predictable stress) and “firebreaks” (predictable recreation) within your context. Experience and apply cognitive-behavioral science and educational psychology activities to foster resilient, kind learners.

Bethany Cates, Western Sierra Collegiate Academy, Lincoln, CA

**1794-117130 Using Generative
AI as a Student Debate
Opponent**

**Midway Suite 9 · Technology in the
Classroom · Demonstration (30 min) · HS,
2Y, 4Y**

Experience a live demonstration of how students can develop debate statements and engage in structured debates using ChatGPT as an opponent. Learn how to implement this activity and receive worksheets for face-to-face and asynchronous options.

Andrea Bierema, Michigan State University, East Lansing, MI

3:30PM – 4:00PM

**Announcement of the 2025
Poster Winners**

Grand DEF · Special Event · GA

NABT is pleased to announce the student winners of the *Biology Education Research and Mentored Student Research competitions*

4:00PM – 5:30PM

**General Session & Presentation of the
2025 NABT Distinguished Service Award**

Jackie Joyner-Kersee

See page 21 for biography

A Conversation with Jackie Joyner-Kersee, STEAM Champion

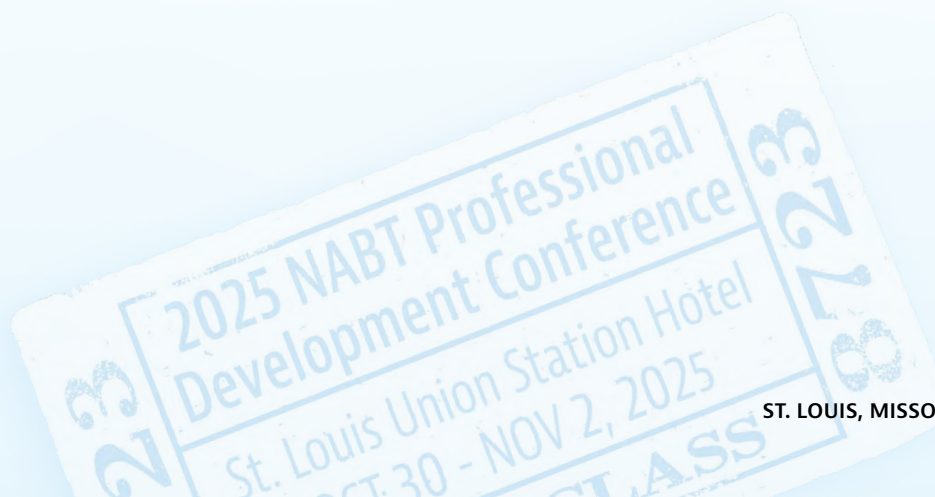
Grand DEF · Special Speaker (60 min) · GA

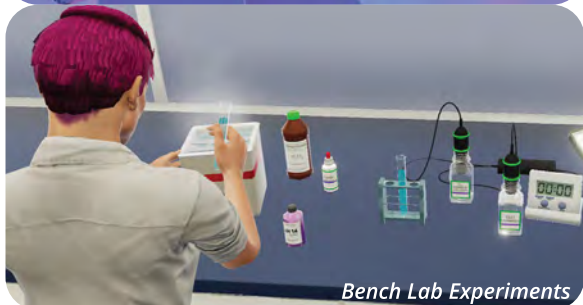
Jackie Joyner-Kersee is considered to be the greatest female all-around athlete in history. Her achievements include three Olympic gold medals, four World Outdoor Championships gold medals, and the current world record of 7,291 points in the women's heptathlon.

With all her achievements on the track, one of Jackie's most important legacies is the work she does in her hometown of East St. Louis. There, the Jackie Joyner-Kersee Foundation has created a safe, learning-rich environment for area kids. At the JJK Foundation, academic programs are designed with a focus on science, technology, engineering, art, and math (STEAM). After-school and summer programs offer a variety of activities in STEAM, arts and crafts, fitness and recreation, nutrition, agriculture, Spanish, and more. And kids, families, and the community of East St. Louis are inspired to “Win at Life.”

Join us for this interview-discussion with Jackie Joyner-Kersee and learn more about how this Olympic champion turned STEAM champion.

**NABT is proud to name Jackie Joyner-Kersee the recipient of the
2025 Distinguished Service Award for Enhancing Biology Education.**





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Booth 213**



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NABT AFFILIATES



Biology Teachers Association of New Jersey (BTANJ)
 Colorado Biology Teachers Association (CBTA)
 Cleveland Regional Association of Biologists (CRABS)
 Connecticut Association of Biology Teachers (CTABT)
 Delaware Association of Biology Teachers (DABT)
 Empire State Association of Two-Year College Biologists (ESATYCB)
 Hong Kong Association of Biology Teachers (HKABT)
 Illinois Association of Biology Teachers (IABT)
 Illinois Association of Community College Biologists (IACCB)
 Indiana Association of Biology Teachers (IABT)
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 Missouri Association of Biology Teachers (MOBioTA)
 New York Biology Teachers Association (NYBTA)
 South Carolina Association of Biology Teachers (SCABT)
 Tennessee Association of Biology Teachers (TNABT)
 Texas Association of Biology Teachers (TABT)
 Virginia Association of Biology Teachers (VABT)

The National Association of Biology Teachers supports these affiliate organizations in their efforts to further biology & life science education.

DAYLIGHT SAVING TIME!



**DON'T FORGET
TO CHANGE
YOUR CLOCKS!**

SESSION KEY:

ELEM - Elementary
GA - General Audience
ML - Middle, Junior High
HS - High School
2Y - 2-year College
4Y - 4-year College & University

8:30AM – 10:30AM

Four-Year College & University Section Meeting

**Midway Suite 11 • Committee
Meeting • 4Y, GA**

Two-Year College & University Section Meeting

**Switchman Room • Committee
Meeting • 2Y, GA**

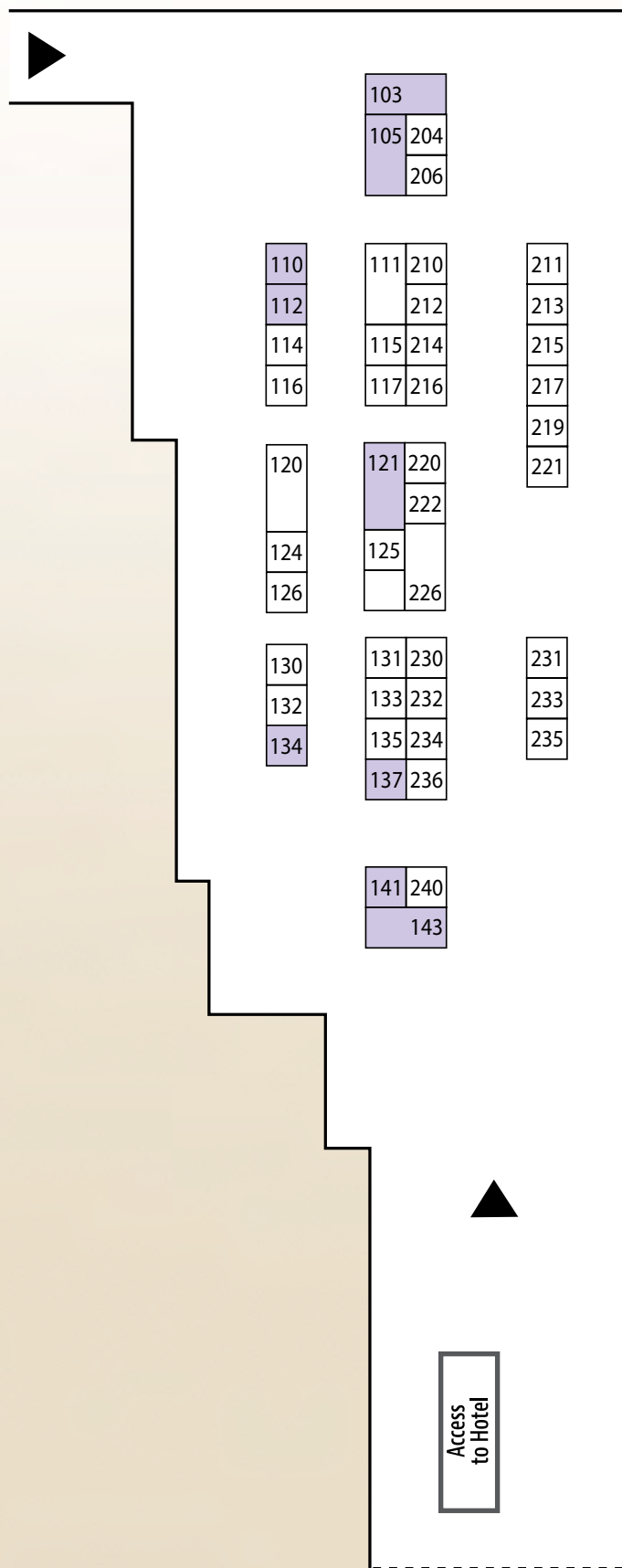
9:00AM – 12:00PM

iEMBER Focus Group (Invite Only)

Midway Suite 5 • Focus Group • 2Y, 4Y

Monday





Midway West

EXHIBIT HALL HOURS

FRIDAY

7:30AM–5:30PM

Exhibit Hours

4:00PM–5:30PM

Exhibit Hall Grand Opening Reception

8:00AM–5:30PM

Exhibit Hall Closing Experiences

EXHIBITOR KEY

SPONSORSHIP TIERS

- Diamond
- Gold
- Silver
-  Treasure Hunt Exhibitors

3D Molecular

Booth #226

3dmoleculardesigns.com

3D Molecular Designs creates interactive kits and models that bring science to life by helping students visualize and explore core concepts in biology, chemistry, and the physical and life sciences. Developed in collaboration with teachers across the U.S., our products are classroom-tested and designed to engage learners through hands-on modeling and discovery. Our kits align with STEM initiatives, NGSS, IB, and PLTW, and integrate seamlessly into existing curricula. We offer digital resources through our Digital Modeling Hub—ask us how you can get started today!

Algae Research and Supply, Inc.

Booth #220

algaresearchsupply.com

Training the next generation of scientists and engineers to wield algae as a tool to reverse climate change. We want to teach you to grow algae!

American Society of Plant Biologists

Booth #235

aspb.org

The American Society of Plant Biologists promotes the growth and development of plant biology, encourages and publishes research in plant biology, and provides vital supports for plant scientists. The Society actively works to increase awareness of the significance of plants, support educators, and increase student interest in STEM by promoting scholarly teaching, active learning, effective mentoring, and evidence-based public engagement.

● Amplys (miniPCR)

Booth #143

www.minipcr.com

We make biology accessible. Whether you are a student, an experienced researcher, or a self-taught amateur, you need high-quality tools that are simple to use. Our biology and biotech equipment and lab activities have brought innovative molecular biology to classrooms and living rooms, forests and laboratories, and even to outer space! Our team of molecular biologists, engineers, designers, and educators is dedicated to the mission of making science accessible to everyone, everywhere.

Anatomage

Booth #111

www.anatomage.com

Anatomage transforms standard anatomy learning through an ecosystem of 3D anatomy hardware and software by allowing users to visualize anatomy at the highest level of accuracy.

Animalearn

Booth #125

thesciencebank.org

For 35 years, Animalearn has worked to enhance life science education experiences by providing non-animal resources for K-12 classrooms and beyond. Animalearn's one-of-a-kind loan program, The Science Bank, is home to hundreds of innovative animal friendly humane science education products, including AR/VR technology and realistic hands-on models, that can be borrowed for FREE. The Science Bank also hosts a comprehensive listing of online dissection links for both animal and human anatomy. Stop by our booth and let us demonstrate how you can reinvent your biology labs and help us put the life back in life science.

● Bedford, Freeman & Worth High School Publishers

Booth #137

bfwpub.com/pounce

Be the first to explore the new 2nd edition of Biology for the AP® Course! BFW Publishers is proud to announce the second edition of our groundbreaking AP® Biology program at NABT. Aligned to the AP® Biology CED, this comprehensive program features integrated skills practice, AP®-specific supports, powerful online homework, exceptional teacher resources, and so much more. Visit our booth to see a preview, request a sample, and demo our digital platform, Achieve. Check our full suite of science offerings, including APES, AP Physics 1 and 2, and HS Chemistry.

BioBrain

Booth #240

www.biobrain.tech

BioBrain is an award-winning learning platform designed to support AP, IB DP, and College Biology students and their teachers. With curriculum-aligned content, interactive quizzes, an illustrated glossary and data-based practice questions, BioBrain helps students master complex biological concepts and prepares them for assessments. Teachers can monitor progress, assign tasks, and access high-quality teaching resources, all in one place. Built by science educators and scientists, BioBrain makes advanced biology accessible, engaging, and effective for every learner.

Bioenergy Research & Education BRIDGES Program

Booth #124

www.energy.gov/eere/bioenergy/bioenergy-research-and-education-bridge-program

The Bioenergy Research and Education Bridge Program (BRIDGES) is bioenergy case study-based educational toolkit created by the U.S. Department of Energy (DOE) Bioenergy Technologies Office (BETO) in partnership with Argonne National Laboratory (ANL) and Idaho National Laboratory (INL) as well as education, community, industry, and other government partners.

Intended to be taught in various settings from high school to technical and community colleges to universities courses, the classroom case study materials within the BRIDGES Program are designed to encourage future careers in bioenergy for all students

BioLEAP

Booth #135

BioLEAP.org

BioLEAP is a humane education program that connects teachers with the tools they need to create engaging, ethical biology lessons. We provide grants of up to \$1,000 to purchase dissection replacement models and offer free humane learning materials including lesson plans, activities, and learning assessments. Stop by our booth to learn more!

● **Bio-Rad Laboratories, Inc.**

Booth #103

explorer.bio-rad.com

Bio-Rad provides a completely supported life science experience. Bio-Rad products are state of the art and take student learning objectives into account. Starting with the highest quality curriculum and reagents with guaranteed results, Bio-Rad provides peace of mind each time you spend your precious lab budget. We focus on providing teachers with the best resources possible so you can focus on what you do best – teach!

BioSpherix, LLC

Booth #131

www.BioSpherix.com

BioSpherix, the leading manufacturer of enclosures for cell and tissue cultures using Cytocentric® technology, is excited to announce the launch of the Xvivo Ed. This groundbreaking mobile glovebox incubator system enables educators to introduce high school and junior college students to the exciting world of biotechnology research safely with our innovative Xvivo Ed system. Expertly tailored for advanced lessons in biology and microbiology, the Xvivo Ed offers a hands-on experience for practicing sterile technique and other essential skills that prepare future scientists for the workforce. Each Xvivo Ed comes with five ready-to-use curricula.

Biotility

Booth #210

go.ufl.edu/biotility

Biotility at the University of Florida offers pathways for individuals seeking to jumpstart or advance their career in the bioscience industries. Our programs include industry short-courses, bioscience educator professional development, and the Biotechnician Assistant Credentialing Exam (BACE) – a biotechnology industry-recognized credential that can be earned before students even graduate high school.

● **BIOZONE**

Booth #141

biozone.com

BIOZONE specializes in the production of high quality student instructional materials and teacher resources for high school sciences in both print and digital media.

Our goal is to improve science education performance in schools across the world. We support teachers in teaching and help achieve the aim to make students succeed in the classroom and their future.

Richard Allan, former teacher, founded his educational publishing company: BIOZONE International, in 1988. Richard and his team have adapted what he has learned in the classroom to develop a suite of unique resources that meet the needs of teachers and students worldwide.

Bone Clones

Booth #117

www.boneclones.com

Bone Clones, Inc. manufactures detailed, high-quality osteological reproductions of skeletal elements. In addition to producing specimens exhibiting trauma and pathology, we have an extensive range of skulls and skeletons providing age, sex, and ancestry differences. Our durable replicas obviate the need for a dedicated teaching collection of real human remains.

● **Carolina Science**

Booth #105

www.carolina.com

Carolina Science is a worldwide leader in science education, providing top-quality, innovative science and math materials for educators. Carolina serves the K-16 market with everything needed to equip science laboratories and classrooms. Products, kits and free teacher resources are available at carolina.com.

DeNovix Inc.

Booth #127

denovix.com

DeNovix Inc. (Wilmington, Delaware, USA) develops, manufactures and sells award-winning laboratory equipment for life science applications. Our products include DS-Series 1 µL UV-Vis Spectrophotometers / Fluorometers and CellDrop™ Automated Cell Counters for cell counting without

slides. DeNovix designs instrumentation that leads the way in solving the problems of today's laboratories, improving the efficiency, accuracy and sustainability of laboratory workflows.

● **Edvotek, Inc.**

Booth #110

www.edvotek.com

EDVOTEK offers premier biotech kits & equipment for high schools, colleges & teaching labs. From PCR to electrophoresis, we support hands-on learning & research, making real-world science accessible and preparing students for health science careers.

Foundation for Biomedical Research

Booth #114

FBRResearch.org

The Foundation for Biomedical Research (FBR) is America's most experienced, trusted and effective nonprofit dedicated to improving human and animal health by promoting public understanding and support for biomedical research. We believe that by illuminating the essential role animal research plays in changing health outcomes and defeating illnesses, we can help make lives even better.

Indiana University College of Arts & Sciences

Booth #133

college.indiana.edu

The College of Arts and Sciences is the place where curiosity meets creativity. Where discovery leads to innovations that make lives better. Where students grow in their love of learning and explore new ways of seeing the world, while acquiring the skills that employers value most. A place where graduates emerge as well-rounded, responsible citizens—empowered and capable—ready to achieve success and leave the world better than they found it. With some of the top science programs in the country, the College is a place where students can make the next great discovery.

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BOOTH 121

Investigate Living Organisms and Ecosystems with Vernier

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1 Winner

(1) Go Direct® CO₂ Gas Sensor
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Investigate cell respiration and decomposition to discover how nature's recyclers **turn the dead into the living** once again.

INVESTIGATION IDEA

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2 Winners

(1) Go Wireless® Optical Heart Rate Sensor
GW-OHR | \$104.95 (retail value)

Measure **heart rate and stress response** navigating a haunted house, running from a masked ghoul... or while grading labs at midnight.

INVESTIGATION IDEA

Effect of Exercise on Heart Rate



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Don't ghost us—stop by our booth and discover what's new in life science education!



Go Direct
Turbidity



Go Direct
Soil Moisture



Go Wireless
Optical Heart Rate

Explore Vernier Biology Solutions at [vernier.com/biology](https://www.vernier.com/biology)



Lab-Aids

Booth #211

www.lab-aids.com

At Lab-Aids, we enrich student learning through active engagement, interactive exploration, and collaborative thinking to enlighten minds. For over 60 years, Lab-Aids has been providing hands-on programs and materials that encourage students to have an active role in their individual learning. From core curriculum to supplemental activities, everything we design is built to help students learn by doing.

Lrnr

Booth #232

lrnr.us

LrnR is an AI-powered social learning platform designed to empower educators and deepen student engagement. Our suite promotes collaboration through a unique Active Learning tool, builds trust through Guided Inquiry and cooperative quizzes, alongside personalized courseware and homework. Educators can leverage Murphy AI to streamline the creation of rich learning activities and provide personalized evaluation for several question types. This saves instructors valuable time while fostering critical thinking and collaborative skills in every student.

Midwestern Journal of Undergraduate Sciences

Booth #204

journals.ku.edu/MJUSc

The Midwestern Journal of Undergraduate Sciences (MJUSc) is an open-access journal based at the University of Kansas Edwards Campus. Founded in 2022, it showcases original STEM research by undergraduate students across the country, providing a professional publishing experience guided by faculty mentors. MJUSc develops critical skills in scientific communication, analysis, and collaboration, preparing students for STEM careers while broadening the visibility of regional research. With readership in over 90 countries, the journal serves as both a platform for emerging scientists and a contributor to the region's STEM education and workforce development.

MiniOne Systems

Booth #206

TheMiniOne.com

Game-changing MiniOne® Systems equipment and labs enable equal access to key biotech techniques for grades 7-12 and beyond. Whether used in the classroom lab or at home, our systems and inquiry-based lab kits save time and money, and engage students with hands-on participation to answer real world questions.

Missouri S&T

Booth #132

education.mst.edu

Missouri S&T offers an online masters program in biology just for teachers! S&T's education department also offers initial teacher certification in physics, chemistry, biology, earth science, general science, and many other areas including elementary and early childhood.

My JoVE Corporation

Booth #112

www.jove.com

JoVE (Journal of Visualized Experiments) is the world-leading producer and provider of peer-reviewed scientific video articles designed to enhance research and education. Its mission is to improve scientific productivity and reproducibility by showcasing experimental methods across disciplines—from biology, chemistry, engineering, and medicine to environmental science and more. JoVE's expansive library offers over 15,000 videos illustrating lab protocols, scientific concepts, animations, and experiment demonstrations, all aimed at empowering educators, students, and researchers worldwide. With tools like customizable playlists, syllabus mapping, and integration with learning platforms, JoVE makes complex science accessible, engaging, and reliable.

NIIMBL

Booth #234

www.niimbl.org/

The National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL) is a public-private partnership focused on advancing biopharmaceutical manufacturing, solving industry challenges, and developing the skilled workforce to meet industry's needs.

Nutrients for Life

Booth #130

nutrientsforlife.org

The Nutrients for Life is a global organization consisting of members and collaborative partners that develops and distributes science-based materials to improve plant nutrient literacy, soil health knowledge and promotes fertilizer's role in sustaining a growing population. Plant nutrients, especially nitrogen, phosphorus and potassium, are also required to keep our parks, gardens, playgrounds, sports fields and golf courses green and healthy in communities from coast to coast. All information developed is science-based and supported by internationally accredited agronomists. Our supplemental educational materials are based on our curriculum which has been reviewed by the Smithsonian Institution.

PhbeaD Jewelry

Booth #222

www.PhbeaD.com

To combine my science background with my passion for making jewelry, I launched PhbeaD, a playful combination of Ph.D. and bead. PhbeaD fuses science and art by creating unique resin jewelry with actual insect wings, including different species of butterflies, moths, grasshoppers, cicadas, dragonflies, dobsonflies, and ant lion. Every piece is meticulously sealed to make an enveloped wing that retains its natural color and is resistant to wear and tear. Set in handmade or custom bezels, no two pieces are exactly alike.

Science Coach

Booth #115

sciencecoach.org

Science Coach is a trailblazing non-profit helping grow the next generation of scientists. We've created a robust ecosystem of support and resources to make it possible for 6th-12th-grade teachers and students to experience and realize the benefits of conducting original research. We provide a stipend for teachers, comprehensive curriculum, year-long professional development, funding for materials and supplies, connections to mentors, and access to and insurance to work in professional labs. Science Coach students have earned 950+ local and regional awards, 55 national and international awards, and nearly \$5 million in college scholarships and cash prizes at science competitions.

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FRI 10:30–11:45 AM / Room: Midway Suite 6
Science Stories That Stick:
Integrating Films & Multimedia in the Classroom

SAT 9:00–10:15 AM / Room: Grand A
Observation as a Superpower:
A Workshop to Inspire Curiosity, Inquiry,
and Critical Thinking in Your Students

10:30–11:00 AM / Room: Grand A
Lesson Plan Demo:
HS Educators Use Free Videos to Seed 3D Learning

SIGN UP:



scicommlab.org/educators

● Science Communication

Booth #134

sciencecommunicationlab.org/educators

The Science Communication Lab (SCL) is a nonprofit organization that partners with educators to transform science learning through immersive films, curriculum-ready multimedia resources, and active learning tools. By highlighting human stories behind scientific discovery, SCL makes complex concepts accessible and engaging. SCL works closely with educators to develop materials aligned with active learning and science standards to support teachers at every level and showcase the real-world relevance of science in the classroom. SCL aims to bridge the gap between science, education, and the public, empowering educators to inspire the next generation to see science as vital, inclusive, and impactful.

SimBio

Booth #116

SimBio.com

SimBio (<https://simbio.com/>) produces software that uses sophisticated interactive simulations to teach biology in an inquiry-driven learning style. We also conduct grant-funded research to understand how to make educational software more effective. Our products allow students to conduct simulated experiments similar to those performed by practicing scientists, in fields of biology where live experiments are impractical or impossible. Our goal is to improve biology education at all educational levels through the appropriate use of advanced technology. And to help make teaching and learning biology fun!

Society for College Science Teaching

Booth #233

theSCST.org

Our mission is to improve college science teaching by facilitating interactions and relationships between faculty, pedagogical and science education researchers, graduate students, science writers and publishers, laboratory coordinators and developers, and other professional societies. SCST annually awards the Outstanding Undergraduate Science Teacher Award (OUSTA) and provides mini-grants for projects related to college science teaching. We welcome all scientific disciplines and modalities (traditional, online, informal).

St. Louis Aquarium

Booth #215

stlouisaquarium.com

Your journey through the St. Louis Aquarium starts along a freshwater river and the shallow waters of a salt marsh, then moves into the deep, dark abyss of the open ocean. Browse our galleries to see what's in store for you when you spend an afternoon at the most unique indoor attraction in St. Louis!

TeachKind

Booth 120

teachkind.org

TeachKind Science is the science education department of TeachKind, the humane education division of People for the Ethical Treatment of Animals (PETA). We offer free resources and support for schools, educators, students, and parents to promote compassion for animals and student equity. Please visit us to learn about our resources, including the game-changing Humane Science Education Pilot Program, which provides free resources for life science teachers. Our materials, lessons, policy support, and classroom presentations are designed to align with social-emotional learning principles and to foster empathy for all.

Terra Science and Education

Booth #212

terraed.org

Terra Science and Education is a 501(c)3 non-profit organization dedicated to supporting those engaged in education and innovation. Terra is the proud founder and sponsor of GENIUS Olympiad, which brings high school students from over 100 countries and 45 US states together to solve environmental problems. Terra organizes regional science and engineering fairs in New York and New Jersey, and provides over \$50,000 annually in school grants. Terra provides software products to enable data-driven educational management for K-12 institutions. Terra has global reach through its three international journals and Bahamas trips for student biology research and teacher professional development.

UniVirtual

Booth #213

www.univirtual.com

UniVirtual delivers immersive, interactive environments that enhance how college and AP Biology courses are both taught and learned.

Our platform connects students and instructors in real time to run experiments, take virtual field trips, and explore biology through hands-on, story-driven activities. Complex concepts become easier to grasp when students actively participate rather than just observe.

Designed for simplicity and requiring no special hardware, UniVirtual makes it easy for educators to integrate virtual labs and explorations into their existing curriculum, sparking lasting excitement for biology in today's learners.

● Vernier Science Education

Booth #121

vernier.com

Vernier Science Education is committed to using our experience, knowledge, and passion to create the best and most reliable solutions for biology education. Our comprehensive solutions include hardware, software, content, assessment, professional development, and technical support. We are dedicated to partnering with biology educators and communities to build a STEM-literate society where students grow up to become knowledgeable citizens who can solve problems, fully contribute to their communities, and drive innovation.

W.W. Norton & Company

Booth #230

seagull.wwnorton.com/biology

Norton Biology creates books and resources that respond to the needs of today's teaching and learning community. Collaborating with passionate instructors at a wide variety of schools, we provide course materials driven by active leaders in life sciences education. These materials reflect the most current learning science to help all students thrive. As an independent and employee-owned publisher since 1923, our main priority and responsiveness is to instructor and student needs, not to outside shareholders.

INSPIRING

ENGAGING

ENCOURAGING



NABT

National Association of
Biology Teachers

Nominate a teacher for a
2026 NABT award.

Submit your nomination online before March 15th
<https://nabt.org/Awards-NABT-Award-Nomination-Form>



A

Adams, Catrina	25
Akuoko, Eric	46
Albee, Alison J.....	39
Albert, Lynne	46
Alcazar, Rosa	46
Allan, Richard	41
Allen, Philip	47
Alvarado, Marisa	27
Andrews, Tessa	44
Angle, Julie	12, 16
Annee, Sherry	16, 27
Anoff, Joshua.....	55
Arango-Caro, Sandra	32
Archibald, Jenny	44
Asgari, Mitra	45
Azam, Mariam	47

B

Barker, Charis	47
Barnes, M. Elizabeth	36
Barord, Gregory	15
Barta, Csengele	24
Bartolomei, Jonathan	44
Basu, Minu	33
Baumgartner, Laura	32, 42
Beatriz de Souza Cortez, Maria	47
Bechtel, Michael	27
Becker, Kristi.....	46
Behrman, Shannon.....	33, 48
Benjamin, Scott	46
Bierema, Andrea	36, 52, 57
Biga, Peggy.....	47
Black, Alexis	52
Blake, Charlie.....	25, 53
Blevins, Roger	15
Bodine Al-Sharif, Mary Ann	47
Bonner, Kaitlin	56
Borrego, Maura	46
Bose, Arpita	8, 20, 31
Brame, Cynthia	14, 37
Bray Speth, Elena	37
Brewer, Rebecca	33
Britt, Marjorie	45
Brookbank, Christine	45
Brooks, Megan	15
Brown, Chris	45
Brownell, Sara	37
Bru, Jean-Louis	45
Bucklin, Carrie Jo	12, 13, 46, 56
Buggi, Ava	44
Bulleri, Robin	12, 33
Burton, Kimberly	15
Bush, Sarah L.	33
Bush, Destiny	47
Butler, David	12, 13

C

Caito, Sam	44
Callis-Duehl, Kristine	33
Cameron, Tajma	40
Capra, Erin	15
Carron, Carly	46
Cascio, Tristan	45
Casimo, Kaitlyn	25, 50
Cates, Bethany	41, 57
Chalupny, N. Jan	53
Chasen, Ariel	46
Chianelli, Xiomara	46
Chimera, Alexander	47
Chlebek, Nicole	47
Chouinard, Adam	45
Christenson, Savannah	46
Christian, Natalie	47
Clary, Renee M.....	27, 32, 46
Cobb, Robin	15
Coffeen, Warren	35
Coffman, Stephanie	39, 46
Cohan, Erica	44
Colbeck, Gabriel	35
Conley, Eva	45
Conner, Jeffrey	47
Contosta, David	44
Cooksley, Elise	55
Cooper, Alexandra	24, 44
Corless, Andrew	42
Cotrell, Alyssa	46
Cotton, Caroline	52
Cowan, Myra	15
Cowles, Elizabeth	16, 41, 48
Cullian, Shane	15
Cwik, Sonja	45
Cynkar, Thomas	40

D

Dabholkar, Sugat	46
Dainis, Alex	30, 38
Daniel, Kristy L.	12, 46, 47, 56
Davis, Benjamin	15
Day, Diane Elaine	51
DeFeo, Dayna	26
Deimeke, Elizabeth	46
Dejka, Geizi	15
DeKorver, Brittland	47
Dennis, Robin	12, 15
Dewsbury, Bryan	26, 47
Dinet, Kaitlin	15
Ding, Lin	47
Doe, Olivia	39
Dolan, Erin	44
Donovan, Sam	26, 33, 44
Dumont, Peter.....	15

Duncan-Teller, Tammi.....	14
Durbak, Amanda	33

E

East, Kelly	50
England, Lisa	55
Ewa, Onyebuchi	53

F

Farrar, Cathy	47
Fassler, Amy.....	55
Ferguson, Daniel	12, 37
Ferguson, Lee	12
Figiel, Elizabeth	53
Flynn, Mackenzie	45
Forgerson, Alexandra	35, 53
Frazier, Adronisha	50
French, Darla	33, 39, 44
Fuchs, Robyn	45
Fueller, Lilly	35

G

Ganey, David	35, 55
Garcia, Glenda	53
Gardiner, Amy	46
Gardner, Grant	46
Garrison, Ava	47
Gathmann, Dennis	12, 13, 16
Gaugel, Julia	47
Gay, Cindy	26, 56
Gendreau, Maribel	12, 13, 14
Genek, Selvet Ece	47
George, Ethan	45, 47
Gerrits, Ron	46
Girtain, Christine	33
Godde, James	51
Goller, Carlos	44
Goodwin, Amanda	25, 47
Goodwin, Emma	37
Goulet, Tamar	26
Gowitzka, Ashlie	12
Granados, Enya	12, 13
Grant, Jeff	55
Gray, Joshua	44, 55
Green, Heather	46
Greene, Madison	46
Guilfoyle, Tim	56
Guinovart, Catherine	47
Gutzler, Stephanie	45

H

Hagins, Whitney	27
Haines, Renee	33, 51
Hajeri, Vinita	41
Hall, Julie	38, 44

Hamerlinck, Gabriela	26
Harrison, Elizabeth	26, 49
Hartley, Jennifer	53
Hartman, Jessica	44
Hashmi, Faryal	37
Hassanali, Ethen	14
Hasty, Addison.....	14
Haughwout, Michael	40
Haynes, Raelynn	27
Heim, Ashley.....	45
Heinrich, Kaleb.....	45
Hennessy-McDonald, Kristin	40
Hernandez, Jefferson	47
Hiatt, Anna	12, 35, 47, 56
Hibler, Tanea	40
Himler, Laura.....	15
Hood, Suzanne	15, 46
Hooker, Kyla	14
Hopman, Ally.....	46
Hsu, Jeremy	24, 44, 45, 47
Huang, Ally	33, 38, 42
Humphries, Elizabeth	46
Hunter, Rick	31
Hunter, K. Lindsay	31, 56
Hutchison, Jennifer	52

I

Idema, Jenn	46
Inbarasu, Jeba.....	44

J

Janowiak, Blythe	47
Jensen, Murray	46, 50
Jensen, Deborah	15
Jezequel, Joanne.....	14, 48
Jimenez Esquilin, Aida.....	45
John, Alena	47
Johnson, Wendy	26, 39, 41, 50
Jones, Kathryn	42
Jones, Jennifer	12
Joshi, Vyjayanti	39
Joyner-Kersee, Jackie	9, 14, 21, 57
Justice, Sarah.....	14, 44, 45

K

Kaggwa, Ruth	24, 33
Kania-Gosche, Beth	46
Karpakakunjaram, Vedham	4, 12, 56
Katskee, Rich	18, 27
Kaur, Amandeep	46
Kerwood, Sienna	44
Kharatmal, Meena	46
Kilar, Valerie.....	40
Kim, Lia	11, 14, 15, 30
Kiser, Stacey	12, 13, 16, 52, 56

Koerner, James	46
Komperda, Regis	47
Krugman, Nathan.....	47
Krumm, Janice.....	45
Kuhn, Bob.....	40
Kukday, Sayali	12
Kuzmenko, Tatiana.....	57

L

LaMar, Drew	44
Lane, Jim	45, 48
Langston, Molly	32
Layfield, Sofia	45
Leacock, Stefanie.....	14, 51
Lee, Star	16, 45, 48
Lee, Andrew	46
Lenahan, Melanie.....	12, 26, 50
Lin, Madelyn	15
Linsalata, David	44
Liscum, Mannie.....	45
Little, Mark	12, 16, 44, 48, 50
Littman, Paige	42
Loftin, Madelene	50, 52
Loftus, Sam	38
Long, Jeannie	51
Long, Olivia	24
Lorenz, Laurel	56
Luper, Amanda	45
Lytle, Rachel	41

M

MacGregor, Marjorie	50
Manthey, Josie	32
Marbach-Ad, Gili	46
Marcette, Jana	25, 45, 56
Marcos, Katrina	12
Marcroft, Tina	47
Martin, William	44
Mason, Brian	42
Mathew, Suzanne.....	15
Mathews, Stephanie.....	44
May, Valerie.....	48
McComas, William.....	12, 13, 16, 35
McCray-Brown, Caniya	44
McDowell, Crystal	14
McElhinney, Amy.....	45
McElhinny, Teresa	53
McKown, Richard	15
Mead, John S.....	48
Meadows, Lee	45, 48
Meadows, Richard	47
Melick, Elizabeth	39
Melton, Bob	12, 13, 16
Mendis, Imandi.....	47
Menna, Thomas	39

Metz, Anneke	12
Milks, Kirstin	5, 12, 13, 48
Miller, Britt	26, 39, 41
Miller, Kristen	46
Miller, Kenneth	18, 27
Minbiole, Julie.....	38
Minges Wols, Heather.....	51
Momsen, Jennifer	37, 46
Moncrief, Ian	27, 32
Montgomery, Samuel	37
Moore, Michael.....	16, 44, 56
Morris, James	41
Morrow, Johanna	44
Mort, Mark	44
Moss, Brittany	15
Murdoch, Barbara	44
Musso, Samantha	46

N

Nagel, Athena	27
Nai, Corrado	44
Narra, Krishna Priya	47
Nero, Derrick A.	27
Newell-Caito, Jennifer.....	44
Newman, Dina L.....	44
Ney, Gideon.....	45
Nguyen, Trish	47

O

Ogundele, Olusegun	45, 46
O'Malley, Chasity.....	46
Oyamaguchi, Hilton Masaharu.....	44, 53

P

Parkin, Kirstin.....	46
Patrum, Christine.....	45
Pauller, Noel	55
Paz Herrera, Amanda	33
Perez, Myrna	19, 27
Peterson, Heather	33
Pfeifer, Mariel	25, 46
Phillippe, Kristi	51
Philo, Danielle	44
Pigg, Rachel	46, 53
Pinkerton, Don	12
Placko, Jean	50
Poot Cahun, Hilario	47
Popescu, Jessica	15
Prater, Maggie.....	32, 42
Prentice, Tonya	15
Prescott, Sarah	33, 44
Pruneskin, Justin	45

Q

Quiroz, Tanya	12, 52
---------------------	--------

R

Rauschert, Emily.....	45
Reese, Amy.....	45, 46, 55
Reeves-Pepin, Jaclyn.....	12, 26
Rehberg, Ginny.....	32
Reneau, Paulette S.....	52
Reynolds, Mindy.....	44
Ribbecca, Stefanie	14, 15
Ridgway, Sam	25
Risko, Crystal.....	33, 38
Rissler, Heather.....	26
Roberson, Robin.....	44
Robinette Minor, Laura.....	15
Robinson, Phyllis.....	40
Rodriguez, Marnie	45
Rogg, Steven.....	51
Rolle, Cleo E.....	52
Rook, Deb.....	44
Rowland-Schaefer, Erin	36
Royal, Brenda.....	55
Ruppert, John	56

S

Saha, Mallika.....	47
Salonga, Kirsten.....	15, 50
Sarraj, Bara	47
Sato, Takumi.....	56
Sawyer, Sara.....	45
Schaak, Ava	45
Schieltz, Jennifer.....	44
Schissler, Martha.....	12
Schmidt, Emily	53
Schuchardt, Anita	46
Schultheis, Elizabeth	10, 26
Schussler, Elisabeth	46
Schwartz, Renee.....	46
Scott, Nafeesah.....	47
Selba, Molly.....	14
Shafer, Daniel J.....	53
Shannon, Daniel.....	45
Shapiro, Kristin	14
Sharp, Katherine.....	24, 46
Shepherd, Hannah.....	15
Shihadih, Diyala	45
Shivakumar, Shawnak.....	47
Sieg, R. Drew.....	47, 66
Sims, Cristi	15
Slack, Lauren	46
Smyth, Davida.....	26
Snelling, Erin.....	52
Sollinger, Jennifer L.....	39
Staab, Trisha	45
Stack, Kamie.....	46
Stamn, Jessice	46
Stetzenmeyer, Anthony.....	56

Stewart, Isaac.....	14
Stine, Abby	47
Stone, Bethany	45
Strode, Paul.....	32, 48, 52
Sudamalla, Aarush	47
Surman, Amanda.....	25, 27, 46
Svoboda, Julia	46
Swamy, Uma.....	44
Swank, Logan.....	44
Sylvain, Zachary	44

T

Taqieddin, Ranya	25, 46
Taylor, Andrew	12, 35
Taylor, Sunni	46
Thompson, Tiara.....	47
Throneburg, Emma.....	46
Tighe, Damon	30, 32, 35, 39, 41
Tillotson, John	46
Townley, Amanda	12, 16
Traphagen, Stephen.....	38
Tucker, Kyle.....	47
Turpin, Kaitlyn.....	44

U

Uddin, Khalid	46
Uddin, Tarannum	45
Uminski, Crystal.....	25, 35, 44
Uno, Gordon.....	16, 26, 56

V

Van Hoeck, Kathy.....	12, 13
Van Tassell, Rebecca	46, 56
Vanden Heuvel, Dan	33, 51
Veguilla, Rosa	33, 48
Vemu, Sheela.....	52, 56

W

Wagner Coello, Helen.....	24
Walker, Madison	45
Walsh, Catherine.....	33, 38
Warden, Abigail	12
Washington, Jacqueline	12, 48
Weglarz, Kathryn.....	45
Wehrwein, Erica	46
Westenberg, Dave	44
Wheatly, Michele	45
White, Rebekah	45
White, Peter	16, 45
Whitehead, Christel	24, 47
Wiens, Katie	45
Wiles, Jason	46
Williamson, Brad	16, 48
Wolfe, George	16, 55
Woltz, Megan	39

Wood, Jenna.....	47
Worden, Braiden	45
Wright, Ashli	46
Wright, L. Kate	44, 45

X

Y

Yang, Suann.....	45, 47
Yun, Seoyoung (Trinity)	47

Z

Zimble-DeLorenzo, Heather	50
---------------------------------	----



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Anatomy & Physiology

Engage Your Class and Promote Collaborative Learning Using Guided Inquiry and Cooperative Quizzes Using Digital Technology.....	50
Novel Ways of Engaging Sophisticated Upper-Level Biology Students through Yoga & Mindfulness.....	27
Teaching Membrane Potential and Membrane Transport with Legos.....	42

AP Life Sciences (Biology & APES)

“Dude, are you catching my drift?” Using Dicamba Drift to Drive Home Engineering Standards, Sustainable Farming Practices, and Acid-Base Chemistry: Lessons for an Environmental Science or Chemistry Classroom	55
2025 AP SYMPOSIUM	48
Alleviating Knowledge Gaps and Misconceptions - Using Data from the 2025 AP Biology Exam and Chief Reader report to inform targeted instructional practices.....	41
An Internationally Popular Edtech Curriculum and Instruction Tool Now Available for Use in US Schools.....	52
Are You Game? Using Games to Teach Core Concepts in Biology	41
Building Student Data Science and Data Literacy Skills in the Context of Evolution Theory	32
Graphs Matter	38
How Do Rodents Survive in the Desert? Using Phenomena-based 3D Learning to Drive Student Sensemaking in AP Biology.....	55
Integrating Synthetic Biology into Your Active Classroom: An Engineering Approach for Your Classroom	35
Lesson Plan Demo: HS Educators Use Free Videos to Seed 3D Learning	51
Pounce into AP® Biology: Introducing the New “Biology for the AP Course”.....	39
Spiraling and Scaffolding Scientific Argumentation in AP Biology	51
What's with the Statistics in Biology?	33

Biotechnology

AI in the Lab: How Algorithms Are Reshaping Biology	39
Easy Protein Expression and Purification for Classroom Settings.....	33
Forensic Escape Room: Design Your Own Biotech Adventure	40
Illuminate Cell Signaling: Explore Quorum Sensing with Vibrio	41
Measuring Feminization by Wolbachia in Common Pillbugs	40

Modeling and Using a Lateral Flow Assay (LFA) to Detect a Human Breast Cancer Biomarker	53
Molecular Harvest	52
Ozempic and Semaglutide Science: Mastering Diabetes and Weight Loss... ..	30
Precision Medicine Begins: A Landmark in CRISPR Gene Edit.....	35

Botany & Plant Biology

Students as Plant Scientists through Research Experiences	32
---	----

Committee Meetings

NABT Committee Meetings	13, 48
NABT Leader Lunch	26
NABT Open Forum	26

Curriculum Development

Biology in the Real World: Helping Students Connect Content Through Phenomena-Based Learning	56
Community Forum for Developing a Learning Framework for Introductory Biology Publications in CourseSource	53
Modifying & Creating Socio-Scientific Case Studies.....	56
Science Stories That Stick: Integrating Films and Multimedia in the Classroom	33
Teaching with AuthenticData & Open Science: Opportunities, Best Practices, and Outcomes	50

Ecology / Environmental Science / Sustainability

Biodiversity on a Budget: Easy Sampling of Local Arthropod Populations Using Affordable Equipment.....	39
Development of a Student-Focused Schoolwide Sustainability Program: The Raider Sustainability Corps.....	50
Dirt Life: Evaluating Human Impacts on the Environment	53
From Data to Models: Investigating PFAS Contamination Through Student Inquiry	35
Teaching Climate Change to Address Denial & Climate Anxiety	39
Unexpected Predator: Shifting Animal Behaviors in Changing Environments Explored Through Tetrahymena(K-8)-Includes a FREE Lending Library for Your Classroom	35
Urban Heat Islands & Historical Roots: An Interdisciplinary Approach to Climate Education	53
Using Data to Model Human Impacts on Climate Change with HHMI BioInteractive	55
Waste to Wonder: Exploring Fungal Bioremediation in a Classroom.....	57

Evolution

Authentic Scientific Research and Data for the Classroom with Data Nuggets	10, 26
NABT Evolution Symposium presented by NCSE: Journey into Darkness: The Allegor of the Cave.....	31
Using Antibiotic Resistance Prevention Strategies to Teach Evolution	52
Why is Evolution so Challenging to Teach? Resources for Addressing Misconceptions & Resistance	41

General Biology

20 in 20 And Beyond.....	10, 27
A Scoping Literature Review on Characteristics of Undergraduate Science Lab Instruction and Methods..	39
Acting Out in Biology	55
Biotech Stories Too New For Textbooks: The HudsonAlpha Guidebook	50
Cell Differentiation and Gene Expression .	32
Cell Respiration Lab Without Tears!	40
Central Dogma Made Visible: Hands-on and Digital Labs	38
Chickens in the Classroom: Using Day-old Chickens to Investigate Innate Behaviors in Animals	53
Diagnosing Sickle Cell Disease: Hands-on and Virtual Genetics Labs	40
Discover BIOZONE Worktexts: Engaging, Flexible & Interactive	41
Empowering Science Learners: Co-constructing a Culturally Sustaining Curriculum with Black Adolescent Girls	40
Engaging ALL Students in Scientific Learning through Zebrafish: A Hands-On Approach	41
Engaging Students in Hominid Evolution	51
Form Fits Function.....	55
From Barnyard to Backyard: Research Projects for the Biology Classroom	42
HHMI BioInteractive: Unleashing Curiosity and Exploring Phenomena with HHMI BioInteractive and Three-Dimensional Learning Cards....	52
Microbial Survivor: Gamification of Diversity, Adaptation, and Environmental Interactions	42
Microsafari - Inspire the “Micronaut” in Your students by Exploring the Ecology and Cell biology of their Local Microcosmos!	48
Modeling Protein Synthesis and Analyzing Data with HHMI BioInteractive Sickle Cell Resources	33

Mutation Monopoly: Exploring the Foundations of Cancer	32
Observation as a Superpower: A Workshop to Inspire Curiosity, Inquiry, and Critical Thinking in Your Students	48
Photosynthesis, Cellular Respiration, and Enzymes: Teaching Common Biology Concepts with Alginate Beads	33
Real-world Genetics: Explore Inherited Cancer Risk and Bioethics Through Lynch Syndrome	30
Sea Lamprey Paper Dissection Model	53
Storyline: Cholera, G-proteins, and Cystic Fibrosis	41
Strawberry DNA Necklace.....	38
Take a Deep Breath: Exploring Oxygen's Journey with HHMI BioInteractive	56
Using Bioinformatics and the Influenza Virus to Reinforce Molecular Biology, Mutations, and Evolution	35
Using Societal Challenges as Phenomena in Three Dimensional Units to Develop Student Agency	10, 26
Using the Photovoice Method to Assess Comprehension in a Non-major Science Class	51
Using visual models and student drawings to assess scientific practices, crosscutting concepts and biology core ideas on exams	35
What is Life? An Engaging and Challenging Activity to Identify and Define Characteristics of Life	38
Why Protein is Legendairy' in the Classroom!	52

Genetics

Genomics Education Modules (GEMs): Embedding R Programming Modules for Cloud-based Research in Gen Bio I	51
Genomics Education Modules (GEMs): Integrating RNA-Seq Research into Freshman Biology at a Community College	39
Investigating Patterns of Human Phenotypic and Genetic Diversity with HHMI BioInteractive Resources	42

Instructional Strategies

16th Annual Biology Education Research Symposium	36, 37
Anchored Inquiry Learning: Designing Meaningful Instruction to Explore Phenomena and Problems	56
Biology Classroom Burnout Mitigation	57
BioQUEST's SPICE: A Community Supporting Two-Year Faculty Pursuing NSF Grant Opportunities	33

Catalyzing Change in a Non-Majors Bio Course	10, 26
Considerations and strategies for using primary literature in the classroom	33
Getting Started in Biology Education Research Workshop	33
More Than One Unit: Integrating Authentic Ecology Data Throughout Biology.....	56
NABT & SABER Midwest Biology Education Poster Session & Coffee Break.....	44-47
NABT Partnerships can Enhance Biology Education Grants	56
Orchestrating Productive Task-Based Discussions in Science	39
Pablo Escobar's Hippos as an Anchoring Phenomenon for Teaching Ecology and Systems Modeling.....	53
Power Up Your Classroom: Strategies for Engaging Students with HHMI BioInteractive's Data Points.....	40
Rising to the Challenge: Improving Student Outcomes Using Intentional Course Design Integrating Rigor, Inclusion, Support, and Engagement	39
SABER DAY: Annual SABER Midwest Meeting	10, 24, 25, 26
SCST Interactive Share-a-thon: AI Strategies for Successful College Science Teaching and Learning.....	32
Small Changes for Big Gains: Addressing Recurring Misconceptions Through Common Classroom Activities	38
Student Poster Practice Session	42
Teaching to Lead: Pathways to National Engagement for Two-Year College Faculty	52
The Power of Storytelling: Engaging and Inspiring Students in the Classroom	52
The Society for College Science Teaching (SCST) Workshop: Elevate Your College Science Courses	10, 27
Transforming Two-Year College Biology Education: Engaging, Accessible, and Research-Driven Approaches	50
Using Minecraft to Increase Engagement and Retention in College Biology Courses	35
Words of Uncertainty and Trust in Science..	38
Writing for the ABT	

International / Global Education

Field Studies in the Bahamas-Travel to the Gerace Research Institute (GRI) in San Salvador, Bahamas to learn the mechanics of setting up your own trip with students.....	55
---	----

JEDI / Inclusive Teaching Practices

BIPOC Affinity Group	40
Changing Department Culture to Achieve Inclusive Excellence in Two-year STEM Education	32
Daily Executive Functioning Assistance through Student Welcome Scripts.....	41
Inclusive Biology Teaching Materials and Research on Their Effectiveness.....	53
Justice, Equity, Diversity, and Inclusion (JEDI) Networking Session	39
NABT 2SLGBTQIA+ Affinity Group	56
Project Leadership: A Tool for Enhancing Teamwork in the Classroom	56
The iEMBER Network: Building Unique Collaborations to Solve Challenges in Biology Education.....	356

Meal Functions

Continental Breakfast	30
NABT BioClub Breakfast	48
NABT Honors Luncheon	55

Microbiology & Cell Biology

Bacteriophage Bioinformatics: Learn How to Annotate a Genome From a Phage that Your Students Discover	51
Model Organisms & Authentic Science: Exploring Cells, Behavior, and the Impact of Substance Abuse with ASSET — Includes a FREE Lending Equipment Library for Your Classroom	53

Science Practices

Exploring Systems Across Scales with HHMI BioInteractive: Regulation from the Human Body to Planet Earth	51
Multilingual Learner Science Boost!	50
Real Data for Real Classrooms: Free Resources to Supplement Any Science Curriculum	50
Scientific Literacy in the Digital Age of Misinformation	10, 26
Scientific Modeling with HHMI BioInteractive: Using Models to Visualize, Explain, and Predict	10, 27
The ABC's of Visual Literacy and Graphing	50
The Value of and Incorporating Student- Centered Integrated Research	40

Section Meetings

AP* Science Section Meeting	30
Elementary and Middle-Level (K-8).....	30
Meeting	
Four-Year College & University Section....	30
Meeting	
High School Level Meeting.....	30
Two-Year College Section Meeting.....	30

Special Events

Announcement of the 2025 Poster Winners.....	57
Exhibit Hall Closing Experience.....	42
Exhibit Hall Opening Reception	28
NABT First Timers' Meet & Greet.....	30
NABT Science Disco and Halloween Party	42
St. Louis Aquarium at Union Station.....	26

Special Speakers

Connections: Scopes, Kitzmiller and Today's Challenges to Science Education.....	27
A Conversation with Jackie Joyner-Kersey: STEAM Champion.....	57
Microbes and Electricity: A Journey Through Earth's History.....	31

Technology in the Classroom

Experiencing Science Together: Adapting Traditional Science Labs to Modern Interactive Technology.....	35
From Paper to Pixels: Lessons Learned in Training College Biology Students in the Art of Electronic Lab Notebooks.....	33
Using Generative AI as a Student Debate Opponent.....	57

Ad Index

Amplify (miniPCR).....	6
Bedford, Freeman & Worth High School Publishers	71
Bio-Rad Laboratories, Inc.....	75
BIOZONE.....	34
Carolina Science.....	28
Edvotek, Inc.....	65
NCSE.....	22
Science Communication Lab	65
UniVirtual.....	58
Vernier Science Education.....	63



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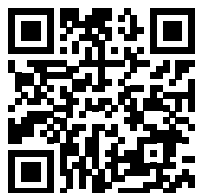
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NABT 2025 Conference Program Addendum

Please note the addition of **Robin Bulleri** and **Valerie May** to the following session:

1794-116978 Alleviating Knowledge Gaps and Misconceptions - Using Data from the 2025 AP Biology Exam and Chief Reader report to inform targeted instructional practices.

Midway Suite 5 · AP Biology · Hands-on Workshop (75 min) · HS, 2Y, 4Y

Informed by the College Board's 2025 "AP Biology Chief Reader Report" along with performance data from the exam, ready-to-use activities will be provided and practiced for seamless implementation into the classroom.

Rachel Lytle, Brentwood High School, Brentwood, TN; Robin Bulleri, Carrboro High School, Carrboro, NC; Valerie May, Woodstock Academy, Woodstock, CT

Cancelled Session: Friday, October 31, 2025, 2:00PM - 2:30PM

1794-117533 A Scoping Literature Review on Characteristics of Undergraduate Science Lab Instruction and Methods

Illinois Central & New York Central (2nd Floor) · General Biology · Paper (30 min) · 4Y

A closer look at university biology lab instructions, potential modalities, and what characteristics could make them more effective.

Jennifer L. Sollinger, North Carolina State University, Raleigh, NC

Correction on Page 12

Section Chairs

Four-Year College & University Section: Sayali Kukday

Two-Year College Biology Section: Melanie Lenahan

Exhibit Hall Changes

New Exhibitor:

ODBMed in Booth #217

Exhibitors unable to join us:

Bones Clones in Booth #117 will not be joining us this year.

Bioenergy Research & Education BRIDGES Program in Booth #124