

INDEX

A

Abeita, Sara 13, 49
 Achat-Mendes, Cindy 40
 Adetogun, Adeyemo 40
 Adkins-Jablonsky, Sarah 41, 42
 Adler, Jennifer 40
 Ahmed, Noveera 40
 Alam, Fhasal 43
 Alcorn, Tara 33
 Alhaj, Zena 42
 Allchin, Douglas 29, 39
 Alloju, Linda 44
 Almehti, Sloan 42
 Alvarez-Saavedra, Zeke
 27, 29, 30, 32, 33, 36
 Ambos, Catherine 11, 29
 Anderson, Caitlin 41
 Anderson, Chris 44
 Anderson, Jennifer 40
 Andrews, Lin 26, 48
 Angle, Julie 3, 11, 43
 Arrigoni, Susan 12
 Avent, Cherie 40
 Awong-Taylor, Judy 40

B

Banik, Amit 43
 Barnes, Elizabeth 12, 42, 43
 Barnett, Dakota 12
 Barry, Kelly 40
 Bateman, Ken 28
 Beckerson, William 40
 Beller-Simms, Nancy 43
 Benavides, Marbelyn 43
 Bennett, Elizabeth 12
 Berumen, Britteny 41
 Bhatt, Jay 41
 Bierema, Andrea 29
 Binding, Maia 39, 46
 Blackburn, David 46
 Bland, Mark 41
 Boatman, Misty 41
 Boehm, Julie 28
 Bokor, Julie 46
 Boling, Tristan 42
 Bonner, Kaitlin 40
 Borja, Kelly Ruiz 43
 Bowen, Chloe 42, 43
 Bower, Jonathan 27, 49
 Boyce, Ayesha 40
 Brewer, Rebecca 26, 28, 29
 Brickman, Marguerite 42
 Broo, Jennifer 46
 Brosnik, Lisa 31, 47
 Brown, Leigh 44, 45, 47
 Brownell, Sara 12, 41, 42
 Bruck, Jason 12
 Brunson, Brianna 42
 Bucklin, Carrie 48
 Bulleri, Robin 11
 Burlyn, Allison 40

C

Caldwell, David 42
 Callis-Duehl, Kristine 34
 Castle, Jamie 13
 Chapman, Makenzie 42
 Chaudhari, Sachi 42
 Cheesman, Kerry 40
 Christenson, Steven 11
 Cian, Heidi 34
 Cogan, John 42
 Convers, Bianca 42
 Cooper, Katelyn 41
 Corwin, Jeff 9, 12, 50
 Cowles, Elizabeth 49
 Crean, Jason 11, 32, 44, 53
 Criswell, Joni 49
 Cross, Cinnamon 42

D

D'Costa, Allison 40
 Dang, Derek 42
 Daniel, Kristy 11, 41, 42, 53
 Darkow, Jon 48
 Davenport, Rachel 41
 Davis, Johnathan 40
 Davis, Julia 44
 de Araujo Bryan, Mariana 43
 de Bekker, Charissa 40
 de Lima, Joelyn 40
 Dewsbury, Bryan 25
 Dimova, Dessy 31
 Doggett, Elizabeth 25
 Donovan, Sam 25, 46
 Dou, Remy 34
 Doust, Andrew 43
 Dunbar, Renee 43

E

Early, Catherine 46
 Eden, Alexander 33
 Edwards, Joshua 40
 Einstein, Vairleene 43
 Eladl, Afaf Sobhi Mohamed 43
 England, Ben 40
 English, Kevin 11
 Espinosa Suarez, Valentina 34
 Essig, Heather 11
 Esteban, Marco 42

F

Falin, Jennifer 13
 Farragut, Taylor 42
 Ferguson, Lee 25, 29, 31, 32, 49
 Fields, Iesha 45
 Flaming, Sue 47
 Fleming, Ryleigh 42
 Forsythe, Shelly 41
 Franckowiak, Brittany 44
 Frank, Max 44, 47
 Freeman, Tom 11, 48
 French, Donald 35, 41
 Friberg, Eric 25, 29, 31, 32
 Fuller, Michael 25

G

Gardner, Grant 41
 Gathmann, Dennis 11, 14, 44
 Gay, Cindy 11, 23, 48
 Genaway, Emily 44, 47
 Gettings, Bethany 40
 Gibson, Philip 25, 28
 Glaser, Rivka 45
 Glaze, Amanda 5, 10, 39
 Gomez, Sofia 43
 Google, Angela 42
 Goulet, Tamar 46, 48
 Gowitzka, Ashlie 11
 Granados, Enya 12, 44, 50
 Granieri, Cassandra 44, 45, 47
 Grant, Jeff 13
 Gray, Jaimi 46
 Gregg, Amanda 43
 Gremski Ardito, Kristina 13
 Grimes, Jolie 29
 Griswold, Joan 31, 39
 Gusky, Sharon 11, 14, 43
 Gutzmann, Daniel 29

H

Habashi, Jessica 43
 Habersham, Patricia 35
 Haine, Dana 47
 Hall, Chris 40
 Hammonds-Odie, Latanya 40
 Hanson, Lisa 42
 Harvey, Nicole 13
 Heil, Austin 42
 Henson, Kate 28
 Herman, Maryann 40
 Hiatt, Anna 11, 29
 Hinrichs, Emelia 29
 Hofstede, Ellen 29
 Hull, Kerry 23

I			
Imbierowicz, Tami	40		
J			
James, Olena.....	41		
Javazon, Elizabeth	40		
Jensen, Jamie	42		
Jensen, Murray	23		
Jin, Ying	43		
Johns, Erica	13		
Johnson, Wendy	36		
Jolton, Joshua	29		
Jones, Leslie Sandra	46		
Jones, Tiffany	12		
Jungck, John	46		
K			
Kaggwa, Ruth	34		
Kane, Amelia	40		
Karpakakunjaram, Vedham.....	11, 25		
Kastanos, Evdokia	12, 40		
Kelsch, Autumn	43		
Kelson, Todd	45		
Kenyon, Mary Jo	41		
Kim, Hye-In	40		
Kim, Sung-Ha.....	40		
King, Supawan	40		
Kipp-Sinanis, Erica	12		
Kirkley, Lesley	31		
Kirkpatrick, Bridgette.....	25, 28		
Kiser, Stacey.....	11, 29, 45		
Koch, Brayden.....	42		
Koker, Mark	39, 46		
Koomen, Michele	29		
Kriswell, Joni	49		
Krumm, Joe	46		
Kucinski, Kate	42		
Kuhn, Bob	25, 36		
Kukday, Sayali.....	35		
Kulkarni, Siddhesh	40		
Kuninsky, Steve.....	33		
Kveton, Kelly	27		
L			
L'Ecuyer, Lindsey.....	12		
LaFleur, Daryle.....	13		
Lamb, Neil.....	32, 49		
Landry, Marni	44		
Lane, Jim	32		
Lane, Kelly	42		
Lax, Neil.....	40		
Lazare, Jennifer	25		
Lee, Clarence.....	45		
Lenahan, Melanie	40		
Leone, Austin	35, 41		
Lesh, Christine	13		
Lesiak, Atom	31, 39		
Levine, Joseph.....	47		
Lewis, Samantha	43		
Limeri, Lisa	42		
Lincoln, Rachel	41		
Little, Mark	11, 14		
Liu, Dennis	27, 46		
Loftin, Madelene	11, 32, 49		
Loh, Ying-Tsu	25		
Long, Tammy	40		
Lucci, Karen	11		
M			
Mac Crossan, Toni.....	48		
Maddux, John	13, 32		
Malaykhan, Mya.....	42		
Mandell, Tamara.....	25, 28		
Markowitz, Dina.....	31, 47		
Martin, William	45		
Mastronardo, Halle	42		
McComas, William.....	11, 27, 32		
McConnell, Myra	41, 53		
McEwan, Paul	13		
McGloughlin, Megan.....	44, 47		
McHale, Meredith.....	44, 47		
McLaughlin, Jacqueline.....	44		
Mendoza, Daniel	41		
Melton, Bob.....	11, 14, 49		
Menna, Thomas	32, 33		
Milks, Kirstin	44		
Minbiole, Julie.....	30		
Mitkus, Erika	27, 49		
Momsen, Jennifer	41		
Monsour, Chris	11, 20		
Moore, John.....	45, 46		
Moore, John A.	14		
Moore, John M.	11, 14		
Moore, Michael	28, 42		
Moore, Randy	14		
Morra, Christina	42		
Morris, J. Jeffrey	41, 42		
Mosher, Meghan	44		
Mraz-Craig, Jennifer.....	42		
Muth, Theodore	29		
N			
Nadile, Erika.....	41		
Nall, Kate	13		
Nash, Troy	41, 42		
Newitt, Jennifer	32		
Nicoll, Patricia.....	13		
Niravong, Thippaphone	43		
Norflus, Fran.....	40		
O			
Ochatt, Claudia	13, 29, 33, 45		
Okuagu, Elonna	41		
Olaniran, Joshua	42		
O'Reilly, Debora	13		
P			
Page, Heather	33		
Pannell, Megan	41		
Pardo-Sanchez, Juanita.....	35		
Parsley, Kathryn	32		
Patton, Jeffrey.....	40		
Pavic, Lisa	12, 32		
Peebles, Patsye	12		
Peffer, Melanie	40, 53		
Pence, April	27		
Perpich, John	40		
Peterson, Kimberly	40		
Phillippe, Kristi	13		
Phillips, Lee	40		
Phillips, Paula.....	32, 33		
Pigg, Rachel	44		
Pike, Lisa.....	40		
Potter, Daina	45		
Q			
Quinlan, Catherine.....	27, 45		
R			
Rademaker, Kristin.....	44, 53		
Rahman, Ishrat.....	40		
Rauschert, Emily	44		
Raut, Samiksha	41, 42		
Ray, Alissa	42		
Redrovan, Jennifer.....	43		
Reeves-Pepin, Jaclyn.....	3, 11		
Reilly, Eliza	46		
Richey, Elizabeth.....	35		
Rissler, Heather	25		
Roper, Lindsey	48		
Ross, Jake	29		
Rossier, Meegan	43		
Rude, Eric.....	45		
Ryan, Todd	11		

INDEX

S

Sabel, Jaime 41, 42
 Salisbury, Sara 41
 Sametz, Lynn 40
 Scardina, Mia 12
 Schuchardt, Anita 46, 53
 Schuchat, Anne 8, 23
 Schug, Malcolm 40
 Scott, Fonya 41
 Shapiro, Kristin 13
 Shepherd, J. Marshall 4, 8, 25
 Shiflet, Angela 28
 Shiflet, George 28
 Shmaefsky, Brian 44
 Shufro, Erin 43
 Sitzman, Anna 43
 Slee, Josh 44
 Slominski, Tara 41
 Smanik, Jim 32, 33
 Smith, Aubrey 40
 Smyth, Davida 46
 Stanga, John 41
 Stanley, Ed 26, 46
 Starnes, John 25
 Stuart, Parker 41
 Sulak, Tracey 28
 Summersill, Alexa 42

T

Tarr, Heidi 32
 Thomas, Aimée 43
 Thomas, Madeline 32
 Timpfe, Candace 40
 Tolar, Alex 28
 Tornberg, Tucker 13
 Touchet, Blake 48
 Traphagen, Stephen 30
 Tufte, Mary Jo 42

U

Ulatowski, Lynn 41
 Ulmen Huey, Pat 40
 Uno, Gordon 46
 Upegui, David 13

V

Van Hoeck, Kathy 44
 Vega, Dulce 40

W

Walczak, Ericka 43
 Walsh, Lisa 34
 Wartski, Albert 13
 Washington, Jacqueline 11
 Weigel, Emily 35
 Welch, Jennifer 27
 Westerlund, Julie 48
 White, Asia 42
 Wiles, Jason R. 12, 35
 Williams, Amber 45
 Williamson, Brad 25
 Williamson, Paula 41
 Willison, LeAnna 41
 Wilson, Logan 43
 Wright, Kendra 41
 Wybren, Elizabeth 43
 Wylie, Lenelle 13

Y

Yang, Suann 44
 Yoder-Himes, Deborah 40
 Yohannes, Robel 42
 Yusuf, Sanaa 42

Z

Zenczak, Andrew 13
 Zimble-DeLorenzo, Heather 41

Anatomy & Physiology

- Exploring the Use of Biomarkers to Investigate the Impact of E-Cigarettes on Airway Inflammation47
- Teaching How the mRNA Vaccines Work Against SARS CoV-2 with Paper Models46
- Using Anatomy Analogies to Anchor and Advance Student Learning27
- Using Guided Inquiry to Teach Anatomy and Physiology Core Concepts18, 23

AP Biology

- AP Biology Symposium39
- A Revisit and Deep Dive into the Floating Leaf Disk Assay--a classic25
- BioBits: Central Dogma. Experiment Directly with Transcription and Translation Using Simple Tools and Procedures33
- Connect Genotype to Phenotype with PTC Tasting using PCR and Gel Electrophoresis28
- Efficiently Teaching the Science Practices in AP® Biology - Part 132
- Efficiently Teaching the Science Practices in AP® Biology - Part 2 Q&A33
- Experimenting on Enzyme Velocity and Allosteric Regulators using Smartphone Applications at Home33
- Fill in the Gaps in your AP Biology Lab Activities31
- Having a BLAST: Getting Comfortable Using Sequence Comparison Program31
- How COVID-19/SARS-CoV-2 Can Be Used to Anchor Concepts and Science Practices in AP Biology32
- Investigate Lemurs, Conservation Genetics, and Evolution with the Duke Lemur Center and miniPCR Bio32
- Knockout! Bringing Authentic CRISPR/Cas to Your Class27
- Using Biotechnology for Inquiry-Based Genetic Studies in AP Biology32
- What's Stress Got to Do with It: Using Primary Literature in Your AP Biology Classroom49

Biotechnology

- Biotechnician Assistant Credentialing Exam (BACE)28
- Catch Up on the Latest CRISPR Tech and Do the Real Thing in Your Classroom!47
- Did You Really Do CRISPR? How Good Experimental Controls let Students Make Real Scientific Claims44
- DNA Club - Student Biology Research Incubator 36
- Lesson Resources for Bringing Biotechnology to Your High School Biology class25
- Making It Personal: How to Teach Cancer With Personalized Medicine28
- Track the Mysterious Spread of SARS-CoV-2 Using a Flexible Gel Electrophoresis Kit45

Botany & Plant Biology

- Implementing the Plant Awareness Disparity Index in Undergraduate Classrooms32

Committee Meeting

- ABT Advisory Committee Meeting10, 27
- Archival Committee10, 49
- Awards Committee10, 32
- Four-Year College & University Section Meeting10, 55
- Informal Science Education Committee10, 44
- Member Resources Committee10, 29
- NABT Board of Directors Meeting & Leader Lunch23
- NABT Open Forum23
- OBTA Directors & Regional Coordinators Meeting10, 33
- Pop-Up Committee Meeting #153
- Pop-Up Committee Meeting #253
- Professional Development Committee10, 45
- Retired NABT Members Committee10, 44
- Social Media Committee10, 45

Curriculum Development

- Building Evolution Curriculum from a Feminist Perspective33
- Creating Engaging Phenomena Aligned Units for NGSS Implementation27
- Using Educative Materials that Highlight the Cultural Resources of Black Heritage to Explore Biology Concepts27

Ecology / Environmental Science / Sustainability

- A Discovery into Wild Insect Responses to Chemical and Physical Stimuli Using Chi-Square and Smartphones29
- Algal Blooms! Designing Solutions to Reduce the Impact of Human Activity on the Environment32
- Are You Up to the Tusk? Storylining with Elephant Conservation and Social Justice39
- Citizen Science within Formal Classrooms using Common Milkweed29
- Guy Harvey Ocean Foundation Collections31
- Half-Earth Project Guided Inquiry: Mapping Hummingbirds and Other Species to Understand Patterns in Biodiversity27
- Looking for Patterns in Species Diversity46
- People and the Biosphere: Hands-on Activities for Environmental Science44
- Richness, Diversity, Abundance and Classification of Garden Species - An At-home Discovery Experiment45
- Wooly Bully: Exploring Science Identity and Attitudes through Citizen Science33

Evolution

- 2021 NABT Evolution Symposium: Squamate Speciation25, 26
- Beyond The Finches: New Phenomena from the Galápagos49
- BIRDD - Using Galapagos Data to Explore Ecological and Evolutionary Concepts46
- How the Evolution of Human Skin Colors Contradicts Racial Categorization and Teaches for Social Justice46
- The Origin and Diversity of Armor in Girdled Lizards: A Case Study in Convergent Evolution46

General Biology

- A New Approach for Non-Majors--Laboratory and Active Learning Exercises Using Computer Simulations28
- Ecosystem Explorers: What's in your Neighborhood?33
- Equity and Belonging through Modified Biology Storylines32
- Explore the Tools and Techniques Behind COVID Testing29, 30
- Exploring Phenomenon with CODAP Data Excursions28
- Exploring Stream Ecology in High School Classrooms: Aquatic Inverts, Eutrophication and Riffle Dancing47
- Improving the Student Experience during Examinations by Building Scenario-based Assessments from the Primary Literature44
- Isn't It Just XX and XY? Students Building Inclusive Scientific Models of Human Sex Determination44
- Math Prereqs for Intro Biology: What are the Effects at One Community College?29
- More Math, Please! Incorporating Quantitative Skills in Biology Courses25
- Social Justice in the Biology Classroom29
- Storylining in Biology Courses: Figuring Out Over Learning About!44
- Storylining in Biology for Coherent Instruction18, 53
- Strategies in a Virtual Introductory Biology Course at a Historically Black University During Covid Pandemic45
- The Ethics of Access: A Framework for Making Decisions about Access to Vaccines and Insulin31
- The Gut Microbiome: A Diverse Ecosystem Thriving on Food and Fiber39
- The Introductory Biology Experience (IBEx): Evaluating Progress in the Adoption of a Multidimensional Curriculum29
- Tick-Borne Diseases: One Health Lessons Connecting Humans, Animals, and the Environment31
- Using March Mammal Madness to Add Excitement to Biology!45
- Using Societal Challenges as Phenomena in Three Dimensional Units to Develop Student Agency18, 23
- What Happened to the Fat? A Storyline for Teaching Cellular Respiration and Growth36

Genetics

2021/22 HudsonAlpha Guidebook	49
Teaching Central Dogma Using COVID-19 Nucleic Acid Vaccines as a Case Study	45
The Power of CRISPR.....	39

Instructional Strategies

A New Project for Undergraduate Non-majors Biology Courses and Instructors.....	46
Anchored Inquiry Learning: Designing Meaningful Instruction to Explore Phenomena.....	48
Assessing Motivation in Introductory College Biology for Improved Student Success	45
Beyond Current Events: Using Contemporary Readings and Media to Support Student Science Practice.....	30
Bridging Disciplines to Bring Research into Biology Classrooms	18, 53
Building Mathematical Equations to Promote Sensemaking and Conceptual Understanding in Biology.....	46
Dismantling Misconceptions that Impede Scientific Understanding in the Classroom.....	48
Empowering Women and Minorities to Picture Themselves as Scientists through IF/THEN® Ambassadors	48
Formative Assessment: The Other F Word	44
Incorporating Authentic Research into a Course Through CUREs (Course-Based Undergraduate Research Experiences)	44
Infusing 21st Century Skills into Undergraduate Biology Courses while Helping 3rd-8th Grade Students Conduct Research	28
NABT Student Un-Conference Session.....	27
Non-majors Matter - Vision and Change for Everyone	25
STEM Educators as Civic Educators.....	46
Synchronous Student Teamwork in an Asynchronous Course.....	29
Writing for the ABT.....	32

Meal Function

AP Biology Section Luncheon.....	18, 30
Four-Year College & University Section Luncheon	18, 30
High School Teachers Luncheon	18, 30
Elementary & Middle Level Teachers Luncheon	18, 30
BioClub Breakfast	18, 39
Lunch Break	47
Two-Year College Section Luncheon	18, 30

Microbiology & Cell Biology

Science for All, One Microbiome at a Time	29
Using Scenario Planning to Teach Pre-Nursing Students About Antibiotic Resistance	48

**NABT Biology Education
Research Symposium**

12th Annual Biology Education Research Symposium	34
---	----

**NABT Education Poster
Session**

Announcement of 2021 Poster Winners.....	49
NABT Biology Education Poster Session & Coffee Break	39

Nature of Science

Climate, COVID, Conspiracy, and Classrooms: How Educators Can Respond to Science Denial.....	47
Death from Above or Below? Designing Curriculum to include NGSS Nature of Science Representations	32
E.O. Wilson in the Comics: Biophilia and Biodiversity for a Broader More Inclusive Audience	46
Laughing in Lab Equals Learning: Utilizing Impairment Goggles to Teach Science Practices and Science Literacy	48

Science Practices

Experiments With Simulations: Teaching Experimental Design With Free Online System Dynamics Simulations	48
Integrate Numeric Questions to Teach, Practice, and Assess Math Skills for Biology.....	32
Sharing Science with Skeptical Students.....	32
The Credibility Games: The COVID Edition	39
Using Human Rights Issues to Engage Students in Biology Courses.....	44

Special Event

Exhibit Hall Closing Reception	36
Exhibit Hall Grand Opening Reception.....	23
NABT First Timers' Reception	23
NABT Students Meet-Up	23
Zoo Atlanta Animal Experience.....	25

Special Speaker

Amanda Glaze: Overcoming Barriers to Scientific Literacy in the United States: Reflections and Vision for Evolution Education	39
Anne Schuchat: My Impersonation of a Biology Teacher Through Three-plus Decades at the CDC	23
J. Marshall Shepherd: The Extreme Weather - Climate Change Connection: Perspectives on the Science, Vulnerability and the Message.....	25
Jeff Corwin: General Session & Presentation of the 2021 NABT Distinguished Service Award.....	50

Technology in the Classroom

Introducing Pivot Interactive's Simulations: Gene to Protein and Mutations	29
Introducing Visible Biology - The Groundbreaking 3D Biology Platform!	44, 47
Introduction to Pivot Interactives: Active Learning Made Easy	25
Using Digital Escape Rooms as a Form of Lab Assessment	49

Ticketed Event

2021 NABT Honors Luncheon.....	19, 47
A Magical Evening with NABT	19, 50
Wild Day at Zoo Atlanta.....	19, 23