



**6th International Conference
of the
Association of Biochemistry Educators
(ABE)**

**Sheraton Sand Key Resort
Clearwater Beach, FL
May 07 - 11, 2017**

ABE Board

Eric Niederhoffer, PhD, President
Southern Illinois University School of Medicine

Susan Cline, PhD, President-Elect
Mercer University School of Medicine

Neil Osheroff, PhD, Past-President
Vanderbilt University School of Medicine

Jana Simmons, PhD, Secretary
Michigan State University College of Human Medicine

Alan Diekman, PhD, Treasurer
University of Arkansas for Medical Sciences

David Franklin, PhD, Webmaster
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Members-at-Large:

Emine Abali, PhD, Rutgers Robert Wood Johnson Medical School

Robert Bateman, PhD, William Cary University College of Osteopathic Medicine

Joe Fontes, PhD, University of Kansas Medical Center

Janet Lindsley, PhD, University of Utah School of Medicine

David Pearson, PhD, University of Texas at Tyler College of Pharmacy

Peter Rubenstein, PhD, University of Iowa Carver College of Medicine

Clive Slaughter, PhD, Georgia Regents University-University of Georgia Medical Partnership

Thank you to the following
Sponsors and Supporters



AGENDA

Sunday, May 07

8:00 am - 12:00 pm
Coquina Room

ABE Board Meeting

3:00 pm - 6:00 pm
Lobby II

Registration Desk Open
Staff: •Sheilah Jewart

6:00 pm - 7:00 pm
Poolside

Welcome Reception (Group Photo)

7:00 pm - 8:15 pm
Poolside

Welcome Dinner

8:30 pm - 9:00 pm
Island Ballroom

Welcome and State of the ABE Address

- Eric Niederhoffer, PhD, ABE President
- Alan Diekman, PhD, ABE Treasurer

Nominations for the ABE Board and the Election Process

- Alan Diekman, PhD, Nominating Committee Chair

Note: For those interested members who did not submit an application for nomination by the pre-meeting due date, you will have until Monday, May 08 at 12:00 pm to submit an application to Alan Diekman if you wish to be considered for election to the Association of Biochemistry Educators Board. Polling will open at 8:00 am on Tuesday, May 09 and close at 10:30 am on Wednesday, May 10.

Newly elected members will be announced on Wednesday at lunch and Officers determined at the meeting of the ABE Board on Wednesday afternoon.

ABE Mission Statement

The mission of the Association of Biochemistry Educators is to promote the critical foundational role of Biochemistry in healthcare education, to foster innovation in Biochemistry education, and to support the development of Biochemistry educators.

ABE Core Values

- Passion for effective teaching in Biochemistry;
- Communicating and collaborating between and among educators and educational researchers;
- Transforming teaching in Biochemistry to educational scholarship.

Monday, May 08

8:00 am – 5:15 pm

Island Ballroom

ABE International Conference

Plenary Session I

Future of Medical Education (Part I)

- Co-Chairs:
- Susan Cline, PhD, Mercer University School of Medicine
 - Eric Niederhoffer, PhD, Southern Illinois University School of Medicine

8:00 am - 9:00 am

Island Ballroom

S-01 Plenary Speaker

The Master Adaptive Learner as a Model for Learning and Teaching

- Larry Gruppen, PhD, University of Michigan Medical School

9:00 am - 10:00 am

Island Ballroom

S-02 Panel Discussion

Using Competency-Based Assessments to Monitor and Coach Pre-Clerkship Medical Students

- Neil Osheroff, PhD Vanderbilt University School of Medicine
- Jana Simmons, PhD, Michigan State University College of Human Medicine
- Sage Arbor, PhD, Marian University College of Osteopathic Medicine
- Joseph Fontes, PhD, University of Kansas Medical Center
- Eric Niederhoffer, PhD, Southern Illinois University School of Medicine

10:00 am - 10:30 am

Break

10:30 am - 12:00 pm

Island Ballroom

S-03 Workshop

Assessments and the Metabolic Map: Constructing Questions for Higher-Order Thinking

- Tina Cowan, PhD, Stanford University School of Medicine
- Tracy Fulton, PhD, UCSF School of Medicine
- Janet Lindsley, PhD, University of Utah School of Medicine
- Jana Simmons, PhD, Michigan State University College of Human Medicine

12:00 pm - 1:00pm

Rusty's Restaurant

Lunch - Included

Island Ballroom

**Plenary Session II
Nutrition/Metabolism Interactions**

Co-Chair: •Peter Rubenstein, PhD, University of Iowa Carver
College of Medicine
•Jana Simmons, PhD, Michigan State University
College of Human Medicine

1:00 pm - 2:30 pm
Island Ballroom

**S-04 Workshop
Innovative Strategies for Nutrition Education**

- Emine Abali, PhD, Rutgers Robert Wood Johnson Medical School
- Alyse Van Liew, Chef, Rutgers Robert Wood Johnson Medical School
- Janet Lindsley, PhD, University of Utah School of Medicine

2:30 pm - 3:00 pm

Break

3:00 pm - 4:30 pm
Island Ballroom

**S-05 Workshop
Gleaning Teaching Pearls from the Nutrition Literature**

- Clive Slaughter, PhD, Augusta University / University of Georgia Medical Partnership
- Robert Bateman, PhD, William Carey University College of Osteopathic Medicine

4:30 - 5:15 pm

Concurrent Education Discussion Group Sessions (EDGrS):

Chair: •Alan Diekman, PhD, University of Arkansas for Medical Sciences

Bay Room

S-06 - Does MCAT 2015 Facilitate Better Student Preparation for Medical Biochemistry?

- Susan Cline, PhD, Mercer University School of Medicine

Palm Room

S-07 - The AAMC Graduation Questionnaire: What Do The Results Mean and How Can They Inform Our Educational Practices?

- Tracy Fulton, PhD, UCSF School of Medicine
- Esteban Dell' Angelica, PhD, UCLA David Geffen School of Medicine

Sand Key Room

S-08 - How Do We Cultivate Self-Directed Learning?

- Eric Niederhoffer, PhD, Southern Illinois University School of Medicine

Monday, May 08 / continued

Island Ballroom

S-09 - Strategies to Increase Live Lecture Attendance and Engagement

- Raquel Ritchie, PhD, Michigan State University
College of Osteopathic Medicine

EVENING ON OWN – ENJOY CLEARWATER BEACH

Tuesday May 09

8:00 am – 12:30 pm **ABE International Conference**

8:00 am - 8:30 am
Island Ballroom

S-10 - Greetings from the Association of Medical and Graduate Departments of Biochemistry (AMGDB) – Building a Medical School from Scratch

- Susan Martinis, PhD, President, AMGDB; Chair, Department of Biochemistry and Medical Biochemistry, University of Illinois School of Molecular and Cellular Biology

8:30 am – 10:00 am **Breakout Sessions A & B**

Island Ballroom

A. Integration of Teaching and Learning (Part I)

- Co-Chairs:
- Joe Fontes, PhD, University of Kansas Medical Center
 - Clive Slaughter, PhD, Augusta University/University of Georgia Medical Partnership

8:30 am - 10:00 am
Island Ballroom

S-11 Workshop
Coupling of Case-Based and Team-Based Learning in Teaching Biochemistry and Genetics in an Integrated Medical School Curriculum

- Daniel Griffin, PhD, Central Michigan University College of Medicine
- Edward McKee, PhD, Central Michigan University College of Medicine

10:00 am - 10:30 am

Break

10:30 am - 12:00 pm
Island Ballroom

S-12 Workshop
Integrating Basic Biochemistry Content into Clinical Skills Labs

- Kristie Grove Bridges, PhD, West Virginia School of Osteopathic Medicine
- Jill Cochran, PhD, FNP, RN-BC, West Virginia School of Osteopathic Medicine

12:00 pm - 1:00 pm
Rusty's Restaurant

Lunch - Included

Bay Room

B. Objectives and Assessment

- Co-Chairs:
- Alan Diekman, PhD, University of Arkansas for Medical Sciences
 - David Pearson, PhD, University of Texas at Tyler College of Pharmacy

8:30 am - 10:00 am

Bay Room

S-13 Workshop

What Biochemistry Do Pharmacy Students Use in Clinical Practice, and What is Important for Them to Know?

- Kevin Kearney, PhD, MCPHS University School of Pharmacy
- Melany Puglisi, PhD, Chicago State University College of Pharmacy

10:00 am - 10:30 am

Break

10:30 am - 12:00 pm

Bay Room

S-14 Workshop

Working to Create a Secure Biochemistry Question Bank: Student Objectives and Competencies in Biochemistry

- Emine Abali, PhD, Rutgers Robert Wood Johnson Medical School
- Zeynep Gromley, PhD, Lincoln Memorial University DeBusk College of Osteopathic Medicine
- Douglas Spicer, PhD, University of New England College of Osteopathic Medicine
- Sankhavaram Pāṇini, PhD, Touro College of Osteopathic Medicine
- Judith Binstock, PhD, Touro College of Osteopathic Medicine
- Joe Deweese, PhD, Lipscomb University College of Pharmacy
- Danielle Cruthirds, PhD, Samford University McWhorter School of Pharmacy
- Pasquale Manzerra, PhD, University of South Dakota Sanford School of Medicine
- Sage Arbor, PhD, Marian University Osteopathic Medical School

12:00 pm - 1:00 pm

Rusty's Restaurant

Lunch - Included

Island Ballroom

**Plenary Session III
Integration of Teaching and Learning (Part II)**

Chair: •Joe Fontes, PhD, University of Kansas Medical Center

1:00 pm - 2:30 pm
Island Ballroom

**S-15 Workshop
Integrating Foundational Sciences into the Clerkship Curriculum**

- Neil Osheroff, PhD, Vanderbilt University School of Medicine
- Lourdes Estrada, PhD, Vanderbilt University School of Medicine
- Kimberly Dahlman, PhD, Vanderbilt University School of Medicine

**Enjoy Clearwater Beach!
Dinner on Own**

7:30 pm – 10:00 pm

ABE / APHMG Poster Sessions I and II

Co-Chairs: •Jon Bernstein, MD, PhD, Stanford University School of Medicine
•Shoumita Dasgupta, PhD, Boston University School of Medicine
•Susan Cline, PhD, Mercer University School of Medicine
•Eric Niederhoffer, PhD, Southern Illinois University School of Medicine

7:30 pm - 8:00 pm
Island Ballroom

Featured Poster Talks

- Kimberly Dahlman, PhD, Vanderbilt University School of Medicine
- Zeynep Gromley, PhD, Lincoln Memorial University DeBusk College of Osteopathic Medicine
- Krishna Mallela, PhD, University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences
- Lauren Massingham, MD, Alpert Medical School at Brown University
- Steve Maxwell, PhD, Texas A&M Health Science Center
- Peter Ronner, PhD, Thomas Jefferson University Sidney Kimmel Medical College and Jefferson College of Pharmacy
- Andrew Sobering, PhD, St. George's University
- Kristin Weitzel, PharmD, University of Florida College of Pharmacy

8:00 pm - 9:00 pm
Palm Room

Posters I - Even numbers

- PS-02 – Donald Basel, Medical College Wisconsin
- PS-04 – Danilo Boskovic, Loma Linda University School of Medicine
- PS-06 – Catherine Cobb, University of Louisville School of Medicine
- PS-08 – Kimberly Dahlman, Vanderbilt University School of Medicine
- PS-10 – Withdrawn
- PS-12 – Joe Fontes, University of Kansas Medical Center
- PS-14 – Jack Goldsmith, University of South Carolina School of Medicine
- PS-16 – Alice Hudder, Lake Erie College of Osteopathic Medicine
- PS-18 – Renee LeClair, University of South Carolina – Greenville School of Medicine
- PS-20 – Lauren Massingham, Alpert Medical School at Brown University
- PS-22 – Darla McCarthy, University of Missouri-Kansas City School of Medicine
- PS-24 – Amy Medlock, University of Georgia, Augusta University/University of Georgia Medical Partnership
- PS-26 – Ken Nishimoto, University of Tennessee Health Science Center
- PS-28 – David Pearson, The University of Texas at Tyler College of Pharmacy
- PS-30 – Peter Ronner, Thomas Jefferson University Sidney Kimmel Medical College and Jefferson College of Pharmacy
- PS-32 – Kersten Schroeder, Lake Erie College of Osteopathic Medicine
- PS-34 – Andrew Sobering, St. George's University
- PS-36 – Kathryn Thompson, University of New England College of Osteopathic Medicine
- PS-38 – Sharmila Upadhyia, St. George's University
- PS-40 – Tracey Weiler, Florida International University Herbert Wertheim College of Medicine
- PS-42 – Kristin Weitzel, University of Florida College of Pharmacy

9:00 pm - 10:00 pm
Palm Room

Posters II - Odd numbers

- PS-01 – Robert Bateman, William Carey University College of Osteopathic Medicine
PS-03 – Miriam Blitzer, University of Maryland School of Medicine
PS-05 – Arup Chakraborty, Roseman University of Health Sciences
PS-07 – Thomas Corso, Lake Erie College of Osteopathic Medicine
PS-09 – Shoumita Dasgupta, Boston University School of Medicine
PS-11 – Martha Faner, Michigan State University College of Osteopathic Medicine
PS-13 – Jack Goldsmith, University of South Carolina School of Medicine
PS-15 – Zeynep Gromley, Lincoln Memorial University DeBusk College of Osteopathic Medicine
PS-17 – Alice Hudder, Lake Erie College of Osteopathic Medicine
PS-19 – Krishna Mallela, University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences
PS-21 – Steve Maxwell, Texas A&M Health Science Center
PS-23 – Amy Medlock, University of Georgia, Augusta University/University of Georgia Medical Partnership
PS-25 – Cody Miller, Baylor College of Medicine
PS-27 – Gwynneth Offner, Boston University School of Medicine
PS-29 – Melany Puglisi, Chicago State University College of Pharmacy
PS-31 – Amina Sadik, Touro University Nevada College of Osteopathic Medicine
PS-33 – Andrew Sobering, St. George's University
PS-35 – Karen Symes, Boston University School of Medicine
PS-37 – Sharmila Upadhya, St. George's University
PS-39 – Susan Viselli, Midwestern University Chicago College of Osteopathic Medicine
PS-41 – Tracey Weiler, Florida International University Herbert Wertheim College of Medicine

7:00 am – 8:00 am
Lobby II

Continental Breakfast

8:00 am – 5:00 pm

**ABE International Conference Joint Meeting with
APHMG Course Directors Special Interest Group**

Island Ballroom

Plenary Session IV

Integration of Teaching and Learning (Part III)

Co-Chairs: •Janet Lindsley, PhD, University of Utah School of
Medicine
•Neil Osheroff, PhD, Vanderbilt University School of
Medicine

8:00 am - 9:00 am
Island Ballroom

S-16 Plenary Speaker

***Lost in Translation: Collaborating to Bring the Basic
Sciences Back to Entrust Everyday Medical Practice***

•Leslie Fall, MD, Dartmouth Geisel School of
Medicine

9:00 am - 10:20 am
Island Ballroom

S-17 Workshop

***Re-envisioning Themes and Threads in the Pre-Clerkship
Curriculum***

•Clive Slaughter, PhD, Augusta University /
University of Georgia Medical Partnership

10:20 am - 10:30 am

Break

10:30 am - 12:00 pm
Island Ballroom

S-18 Workshop

***Developing Cases and Assessments for Integrated
Biochemistry and Genetics/Genomics Curricula***

•Jon Bernstein, MD, PhD, Stanford University School
of Medicine
•Shoumita Dasgupta, PhD, Boston University School
of Medicine
•Vicki Park, PhD, University of Tennessee Health
Science Center College of Medicine
•Tracey Weiler, PhD, Florida International University
College of Medicine
•Andrew Sobering, PhD, St. George's University
School of Medicine
•Katherine Hyland, PhD, UCSF School of Medicine
•Tracy Fulton, PhD, UCSF School of Medicine
•Tina Cowan, PhD, Stanford University School of
Medicine

12:00 pm - 1:00pm
Palm / Bay Room

Lunch - Included

Wednesday, May 10 / continued

1:00 pm – 1:15 pm
Island Ballroom

Announcements and Updates

1:15 pm – 1:30 pm
Island Ballroom

APHMG Initiatives / Ideas Report

1:30 pm - 2:30 pm
Island Ballroom

Instructional Design Approaches for Creating Effective e-Learning and Video-Based Medical Education

- Kadriye Lewis, EdD, Children's Mercy Hospital & UMKC School of Medicine
- Andrew Sobering, PhD, St. George's University School of Medicine
- Katherine Hyland, PhD, UCSF School of Medicine

2:30 pm - 3:15 pm
Island Ballroom

Strategies for Including Ethics in Integrated Medical Curricula

- Jon Bernstein, MD, PhD, Stanford University School of Medicine
- Shoumita Dasgupta, PhD, Boston University School of Medicine

3:15 pm - 3:30 pm

Break (take down posters)

3:30 pm - 4:30 pm
Island Ballroom

Integration of Genetics Content into Clinical Education Settings/Clerkships – workshop

- Vicki Park, PhD, University of Tennessee Health Science Center College of Medicine
- Tracey Weiler, PhD, Florida International University College of Medicine

4:30 pm - 5:00 pm
Island Ballroom

Report Back on Sessions and Meeting Closing

5:00 pm - 6:00 pm
Island Ballroom

ABE Board Business Meeting

6:00 pm - 9:00 pm
Poolside

ABE & APHMG Seafood Fiesta (Group Photo)

- Eric Niederhoffer, PhD, ABE President 2015-2017
- Susan Cline, PhD, ABE President 2017-2019
- Darrel Waggoner, MD, APHMG President 2015-2017
- David Wargowski, MD, APHMG President 2017-2019

8:00 am – 10:00 am	ABE International Conference Joint Meeting with APHMG Course Directors Special Interest Group
7:00 am – 8:00 am <i>Lobby II</i>	Continental Breakfast
8:00 am – 10:00 am <i>Beach Ballroom</i>	Plenary Session I <i>Teaching Millennial Learners: Top Tips</i> <ul style="list-style-type: none">•Hope Ricciotti, MD, Beth Israel Deaconess Hospital <i>Rethinking Adult Learning Principles in Medical Education: Five Teaching Perspectives</i> <ul style="list-style-type: none">•Kadriye Lewis, EdD, Children’s Mercy Hospital & UKMC School of Medicine, Kansas City, MO
10:00 am - 10:15 am	Break

<i>Palm Room</i>	ABE - Plenary Session VI
<i>Palm Room</i>	Short Talks Chair: •David Franklin, PhD, Tulane University School of Medicine
10:15 am - 10:45 am <i>Palm Room</i>	S-19 - Mapping Curriculum across Disciplines and Time Easy Generic ad hoc Databases •Sage Arbor, PhD, Marian University Osteopathic Medical School
10:45 am - 11:15 am <i>Palm Room</i>	S-20 - SoftChalk as an Interactive Learning Alternative to Traditional Lectures •Steven Ellis, PhD, University of Louisville School of Medicine •Catherine Colb, MS, University of Louisville School of Medicine
11:15 am - 11:45 am <i>Palm Room</i>	S-21 - All Lectures Complete...But the Course is Not! •Martha Faner, PhD, Michigan State University College of Osteopathic Medicine
11:45 am - 12:15 pm <i>Palm Room</i>	S-22 - Curating Content through iBook Development •Renee LeClair, PhD, Virginia Tech Carilion School of Medicine •Andrew Binks, PhD Virginia Tech Carilion School of Medicine
12:15 pm - 12:30 pm <i>Palm Room</i>	ABE Closing Remarks & Adjournment

SESSION ABSTRACTS

S-01 THE MASTER ADAPTIVE LEARNER AS A MODEL FOR LEARNING AND TEACHING

Larry Gruppen
University of Michigan Medical School, Ann Arbor, MI

SUMMARY: Learner centered education seeks to foster learners who can take full advantage of learning opportunities, identify and pursue their own learning, and adapt to dynamic learning environments. Such learners are self-regulated and less dependent on the vagaries of idiosyncratic curricula and faculty teaching. The Master Adaptive Learner model (Cutrer, et al. *Acad. Med.* 2016) provides a comprehensive model of such learners and the phases of learning that characterize them. It is, however, a model and the reality of modern medical education is