

Teaching Biochemistry to Students of Medicine, Dentistry & Pharmacy

**April 30 – May 4, 2011
Ocean Creek Resort
Myrtle Beach, SC**

**Sponsored by
the Association of Biochemistry Course Directors (ABCD) and
the Association of Medical & Graduate Departments of Biochemistry
(AMGDB)**

Organizing Committee:

Peter Ronner, Chair ABCD, Thomas Jefferson University
Richard Sabina, Vice-Chair ABCD, Oakland University William Beaumont School of Medicine
Michael Lea, Secretary ABCD, UMDNJ – New Jersey Medical School
Edward McKee, Treasurer ABCD, Indiana University School of Medicine, South Bend
David Franklin, Webmaster ABCD, Tulane University
Denise Ferrier, Drexel University College of Medicine
Tracy B. Fulton, University of California, San Francisco
Selina Noramly, University of Virginia School of Medicine

**Web-site:
abcd.wildapricot.org**

Program Overview

Saturday	Sunday	Monday	Tuesday	Wednesday
	6:30 - 7:45 am Breakfast	6:30 - 7:45 am Breakfast	6:30 - 7:45 am Breakfast	6:30 - 7:45 am Breakfast
	8:00 am - 12:00 noon Plenary Session I: Student-Centered Teaching (TBL, PBL, Simulation)	8:00 am - 12:00 noon Plenary Session II: Assessment and Remediation	8:00 am - 12:00 noon ABCD Business Meeting and Plenary Session III New Curricula (Integrated curricula, Basic science in years 3+4, MCATs)	8:00 - 10:30 am Plenary Session V Continuing Education (Emerging or controversial topics)
	12:00 noon - 1 pm Lunch	12:00 noon - 1 pm Lunch	12:00 noon - 1 pm Lunch	11:00 am Check-Out
	1:00 - 3:00 pm Working sessions (5) to create student objectives / competencies in biochemistry	1:00 - 2:30 pm Workshops (2): Simulation (repeat), Resource Exchange	1:00 - 3:00 pm Plenary Session IV: Nutrition	
3:00 pm Registration opens	3:00 - 5:00 pm Poster session (including videos, websites, etc.)	Free time	3:15 - 5:15 pm Working sessions (5) to create student objectives / competencies in biochemistry	
5:30-7:00 pm Welcome Reception	6:00 - 7:00 pm Dinner	Dinner on your own		
7:00-10:00 pm Welcome Dinner and Opening Session (incl. TBL)	7:30 - 9:00 pm Workshops: Simulation, Item Writing		7:00-10:00 pm Farewell Dinner Topics for the next ABCD meeting	

Detailed Agenda

Saturday, April 30

3:00 - 8:00 pm **Registration Desk Open** Creekside Foyer
Staff: **Sheilah Jewart**

5:30 - 7:00 pm **Welcome Reception** Creekside Patio

7:00 - 10:00 pm **Welcome Dinner** Creekside Room

Opening Session:

7:45 - 7:55 pm **Welcome & Overview: Peter Ronner**, Ph.D., Department of Biochemistry and Molecular Biology, Thomas Jefferson University, Philadelphia, PA, and Chair of the Association of Biochemistry Course Directors

7:55 - 8:00 pm **Report from the International Association of Medical Science Educators (IAMSE) - Michael Lea**, Ph.D., Department of Biochemistry and Molecular Biology, University of Medicine and Dentistry of New Jersey, New Jersey Medical School, Newark, NJ

8:00 - 8:05 pm **Report from the Team-Based Learning Collaborative - Edward McKee**, Ph.D., Indiana University School of Medicine, South Bend, IN

8:05 - 8:10 pm **Report on the American Association of Colleges of Pharmacy (AACP) - James Stoll**, Ph.D., Department of Biomedical Sciences, Texas Tech School of Pharmacy, Amarillo, TX

8:10 - 8:15 pm **The Course Directors' Group in the Association of Professors of Human and Medical Genetics, APHMG - Darrel Waggoner**, M.D., Departments of Human Genetics and Pediatrics, University of Chicago, Chicago, IL, and **Katherine Hyland**, Ph.D., Department of Biochemistry & Biophysics, University of California, San Francisco, CA

8:15 - 8:20 pm **Resources on the ABCD Website - David Franklin**, Ph.D., Department of Biochemistry, Tulane University, New Orleans, LA, and Webmaster of the Association of Biochemistry Course Directors

8:20 - 8:30 pm **Defining Objectives and Competencies in Biochemistry - Peter Ronner**, Ph.D., Department of Biochemistry and Molecular Biology, Thomas Jefferson University, Philadelphia, PA

- 8:30 - 8:45 pm **The Process of Developing Competencies in Genetics.**
Darrel Waggoner, M.D., Departments of Human Genetics and Pediatrics, University of Chicago, Chicago, IL, and **Katherine Hyland**, Ph.D., Department of Biochemistry & Biophysics, University of California, San Francisco, CA
- 8:45 - 9:00 pm **Guidelines on Writing Learning Objectives - Tracy B. Fulton**, Ph.D., Department of Biochemistry & Biophysics, University of California, San Francisco, CA
- 9:00 - 10:00 pm **Hot Peppers TBL: Active-Learning "Ice Breaker"...Biochemistry-Style**
Richard Sabina, Ph.D., Oakland University, William Beaumont School of Medicine, Rochester, MI, and **Edward McKee**, Ph.D., Indiana University School of Medicine, South Bend, IN

Note:

Applications for those interested in serving on the Executive Committee are due Monday at 1:00 pm (to Edward McKee, the current treasurer of ABCD; if you cannot find Ed, Sheilah Jewart can probably also help you). Officer assignments will be determined at a meeting of the Executive Committee on Tuesday evening.

Sunday, May 1

6:30 - 7:45 am	Buffet Breakfast	Creekside Room
8:00 am - 12:00 pm	Plenary Session I: Student-Centered Teaching Moderators: Richard Sabina , Ph.D., Oakland University, William Beaumont School of Medicine, Rochester, MI, and Edward McKee , Ph.D., Indiana University School of Medicine, South Bend, IN	Water Oaks
8:00 - 8:45 am	Concept Mapping in Team Based Learning - Kathryn Thompson , Ph.D., R.D., and Renee LeClair , Ph.D., Department of Biochemistry and Nutrition, University of New England, College of Osteopathic Medicine, Biddeford, ME	
8:50 - 9:35 am	Problem-based Learning - A Small Group, Student-Centered Learning Technique for Integrating Basic and Clinical Sciences - W. Marshall Anderson , Ph.D., Indiana University School of Medicine – Northwest, Gary, IN	
9:40 - 10:00 am	Within a Lecture-Based Course Environment, a Novel 3-Quiz Paradigm can Promote Student-Centered, Problem-Oriented, Team- Based, Multi-Disciplinary Learning that is Well-Accepted by Both Faculty and Students – Steven C. King , Ph.D., Department of Integrative Biosciences, Oregon Health & Science University School of Dentistry, Portland, OR	
10:00 - 10:20 am	Break	
10:20 - 11:05 am	Applications and Tools for Integrating Biochemistry Courses into Medical Simulation - David Pederson , Ph.D., Director Medical Simulation, Ross University School of Medicine, Commonwealth of Dominica, West Indies	
11:10 - 11:30 am	Use of Simulation Center Patients in PBL during the 1st-Year of Medical School - Mary Wimmer , Ph.D., Department of Biochemistry, West Virginia University School of Medicine, Morgantown, WV	
11:35 - 11:55 am	Enhancing Problem-Based Learning by Inclusion of a Simulation Lab Experience - Ralph Keil , Ph.D., Department of Biochemistry & Molecular Biology, Penn State Hershey Medical Center, Hershey, PA	
12:00 - 1:00 pm	Luncheon	Water Oaks Patio

1:00 - 3:00 pm	Working Sessions to create student objectives and competencies in biochemistry (5 concurrent sessions):	
	DNA Replication, Transcription, and Translation Water Oaks 1 Moderator: Michael Lieberman , Ph.D., Department of Molecular Genetics, Biochemistry & Microbiology, University of Cincinnati, Cincinnati, OH	
	Fundamentals, Proteins, and Enzymes Water Oaks 2 Moderator: Edward McKee , Ph.D., Indiana University School of Medicine, South Bend, IN	
	Blood Water Oaks 3 Moderator: Peter Ronner , Ph.D., Department of Biochemistry and Molecular Biology, Thomas Jefferson University, Philadelphia, PA	
	Carbohydrate Metabolism Library Moderator: Tracy B. Fulton , Ph.D., Department of Biochemistry & Biophysics, University of California San Francisco, San Francisco, CA	
	Overarching Competencies Creekside Room Moderator: Janet Lindsley , Ph.D., Department of Biochemistry, University of Utah School of Medicine, Salt Lake City, UT	
3:00 - 5:00 pm	Poster / Video / Website Presentations Water Oaks Organizer: Michael Lea , Ph.D., Department of Biochemistry and Molecular Biology, University of Medicine and Dentistry of New Jersey, New Jersey Medical School, Newark, NJ	
6:00 - 7:00 pm	Dinner Creekside Room	
7:30 - 9:00 pm	Workshop sessions (2 concurrent sessions): <u>Workshop 1</u> Water Oaks 1 Simulation - David Pederson , Ph.D., Director of Simulation, Integrated Medical Education, Ross University, School of Medicine, Dominica Moderator: David Franklin , Ph.D., Department of Biochemistry, Tulane University, New Orleans, LA	

Workshop 2
Item Writing

Water Oaks 2

Moderator:

Edward McKee, Ph.D., Indiana University School of Medicine, South Bend, IN

Participants:

Janet Lindsley, Ph.D., Department of Biochemistry, University of Utah School of Medicine, Salt Lake City, UT

Edward McKee, Ph.D., Department of Biochemistry and Molecular Biology, Indiana University School of Medicine, South Bend, IN

Eric Niederhoffer, Ph.D., Department of Biochemistry and Molecular Biology, Southern Illinois University School of Medicine, Carbondale, IL

Clive Slaughter, Ph.D., Department of Biochemistry, Medical College of Georgia, University of Georgia, Athens, GA.

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Monday, May 2

6:30 - 7:45 am	Buffet Breakfast	Creekside Room
8:00 - 12:00 noon	Plenary Session II: Student Assessment and Remediation	Water Oaks
	Moderators: Tracy B. Fulton , Ph.D., Department of Biochemistry & Biophysics, University of California San Francisco, San Francisco, CA, and David Franklin , Ph.D., Department of Biochemistry, Tulane University, New Orleans, LA	
8:00 - 8:30 am	Predicting At-Risk Students Using a Diagnostic Proficiency Examination - Neil Osherooff , PhD., Department of Biochemistry, Vanderbilt University School of Medicine, Nashville, TN	
8:40 - 9:10 am	Just in Time Teaching (JiTT) to Teach Apolipoproteins and Cholesterol-Based Diseases - David Franklin , Ph.D., Department of Biochemistry, Tulane University, New Orleans, LA	
9:20 - 10:05 am	NBME Comprehensive Basic Sciences Self-Assessment Exam - Agata Butler , Ph.D., Vice President, Medical Education and Health Profession Services, National Board of Medical Examiners, Philadelphia, PA	
10:05 - 10:20 am	Break	
10:20 - 10:50 am	Remediation in an Integrated Curriculum - Tracy B. Fulton , Ph.D., Department of Biochemistry & Biophysics, University of California San Francisco, San Francisco, CA	
11:00 - 11:45 am	Activating Self-Regulated Learning in Medical Education: The Educator's Role - Ryan Brydges , Ph.D., Department of Medicine, University of Toronto, & The Wilson Centre, Toronto, Ontario, Canada	
12:00 - 1:00 pm	Luncheon	Water Oaks Patio
	One table will be reserved for those who want to discuss further collaboration between geneticists (APHMG) and biochemists (ABCD)	
1:00 pm	Applications for those interested in serving on the Executive Committee are due (to Edward McKee, the current treasurer of ABCD; if you cannot find Ed, Sheilah Jewart can probably also help you). Officer assignments will be determined at a meeting of the Executive Committee.	
Any time	Sign up to Share Taxis to Airport Sheilah Jewart, Amazing Occasions	Water Oaks Foyer

1:00 - 2:30 pm

Workshop Sessions:

Workshop 1

Water Oaks 1

Simulation - David Pederson, Ph.D., Director of Simulation, Integrated Medical Education, Ross University, School of Medicine, Dominica
Moderator: **Edward McKee**, Ph.D., Indiana University School of Medicine, South Bend, IN

Workshop 2

Water Oaks 2

Resource Exchange – Denise Ferrier, Ph.D., Department of Biochemistry and Molecular Biology, Drexel University College of Medicine, Philadelphia, PA

Primary Presentations:

Faculty Development for Biochemists and Beyond - Tracy B. Fulton, Ph.D., Department of Biochemistry & Biophysics, University of California San Francisco, San Francisco, CA

Jigsaw: Cooperative Learning in the Pre-Clinical Years at RWJMS - Emine Abali, Ph.D., Department of Medicine and Pharmacology, Robert Wood Johnson Medical School - University of Medicine and Dentistry of New Jersey, New Brunswick, NJ

Peer-Facilitated Break-Out Discussions in Biochemistry - Gemma Geslani, Ph.D., Department of Basic and Pharmaceutical Sciences, St. Louis College of Pharmacy, St. Louis, MO

Independent Explorations in Biochemistry - Denise Ferrier, Ph.D., Department of Biochemistry and Molecular Biology, Drexel University College of Medicine, Philadelphia, PA

Vitamin Jeopardy in a First-Year Medical School Curriculum - David Franklin, Ph.D., Department of Biochemistry, Tulane University, New Orleans, LA

Required Case Studies for the Study of Medical Nutrition – John Swaney, Ph.D., Department of Biochemistry and Molecular Biology, Drexel University College of Medicine, Philadelphia, PA

Free time (some ideas for things to do are listed on pages 18-19)
For intrepid souls, there is a special session, see page 17.

Dinner on Your Own (some restaurants are listed on pages 19-20)

3:00 - 4:00 pm

Special voluntary session: Team-Based Learning in Biochemistry, Successes, Resources, and Problems

Moderators: **Edward McKee**, Ph.D., Indiana University School of Medicine, South Bend, IN and **Richard Sabina**, Ph.D., Oakland University, William Beaumont School of Medicine, Rochester, MI

Panelists:

Janet Lindsley, Ph.D., Department of Biochemistry, University of Utah School of Medicine, Salt Lake City, UT

Kathy Thompson, Ph.D., R.D., Department of Biochemistry and Nutrition, University of New England, College of Osteopathic Medicine, Biddeford, ME

David Franklin, Ph.D., Department of Biochemistry, Tulane University, New Orleans, LA

Casey Bassett, Ph.D., Department of Cellular and Molecular Biology, Lincoln Memorial University-DeBusk College of Osteopathic Medicine, Harrogate, TN

Ralph Keil, Ph.D., Department of Biochemistry and Molecular Biology, Penn State Hershey Medical Center, Hershey, PA

Tuesday, May 3

- 6:30 - 7:45 am **Buffet Breakfast** Creekside Room
- 8:00 - 8:30 am **Business & Organizational Meeting** Water Oaks
Election of new members of the Executive Committee (applications due by Monday at 1 pm)
Collaboration with Association of Professors of Human and Medical Genetics (APHMG)
Moderator: **Edward McKee**, Ph.D., Indiana University School of Medicine, South Bend, IN
- 8:30 am - 12:00 pm **Plenary Session III: New Curricula** Water Oaks
Moderators: **Denise Ferrier**, Ph.D., Department of Biochemistry and Molecular Biology, Drexel University College of Medicine, Philadelphia, PA, and **Tracy B. Fulton**, Ph.D., Department of Biochemistry & Biophysics, University of California San Francisco, San Francisco, CA
- 8:30 am - 9:30 am **Integrated Curricula:**
- 8:30 am - 8:45 am **Molecular Foundations of Medicine: An Interdisciplinary Biochemistry-Based Course - Neil Osheroff**, Ph.D., Department of Biochemistry, Vanderbilt University School of Medicine, Nashville, TN
- 8:50 am - 9:05 am **Biochemistry in an Integrated M1/M2 Organ-System Curriculum - Richard Sabina**, Ph.D., Oakland University, William Beaumont School of Medicine, Rochester, MI
- 9:10 am - 9:25 am **Teaching Biochemistry in an Integrated First Year Medical School Curriculum - Clive Slaughter**, Ph.D., Department of Biochemistry, Medical College of Georgia, University of Georgia, Athens, GA.
- 9:30 am - 9:45 am **Break**
- 9:45 am - 10:45 am **Basic Science in Years 3 and 4:**
- 9:45 am - 9:55 am **Using Clinical Case Conferences as a Means of Delivering Basic Science Content in the Clerkship Years - Steve Ellis**, Ph.D., Department of Biochemistry and Molecular Biology, University of Louisville, Louisville, KY
- 10:00 am - 10:10 am **Is this an integration or a differentiation problem? - Chin-To Fong**, M.D., Department of Biochemistry and Biophysics, University of Rochester, Rochester, NY

- 10:15 am - 10:25 am **Integration of a Basic Science Assessment into a Clinical Performance Exam - Katherine Hyland**, Ph.D., Department of Biochemistry & Biophysics, University of California, San Francisco, CA
- 10:30 am - 10:40 am **Integration of Genetics and Basic Science into the 3rd and 4th Years of Medical School Utilizing Clinical Cases - Darrel Waggoner**, M.D., Departments of Human Genetics and Pediatrics, University of Chicago, Chicago, IL
- 10:45 am - 10:50 am Change over
- 10:50 am -12:00 pm **The MR5 and Changes to the MCAT: Implications for Teaching Biochemistry in Medical School - Malak Kotb**, Ph.D., Department of Molecular Genetics, Biochemistry & Microbiology, College of Medicine, University of Cincinnati, OH; and Representative of the AMGDB
- 12:00 - 1:00 pm **Luncheon** Water Oaks Patio
- 1:00 - 3:00 pm **Plenary Session IV: Nutrition** Water Oaks
Moderators: **Selina Noramly**, Ph.D., Department of Biochemistry and Molecular Genetics, University of Virginia School of Medicine, Charlottesville, VA, and **Denise Ferrier**, Ph.D., Department of Biochemistry and Molecular Biology, Drexel University College of Medicine, Philadelphia, PA
- 1:00 - 1:10 pm **Experimental Biology Meeting Summary - Martin Kohlmeier**, M.D., Department of Nutrition, University of North Carolina, Chapel Hill, NC
- 1:10 - 2:10 pm **Using online resources for nutrition education - Martin Kohlmeier**, M.D., Department of Nutrition, University of North Carolina, Chapel Hill, NC
- Participants:**
- Alan Diekman**, Ph.D., Department of Biochemistry and Molecular Biology, University of Arkansas for Medical Science, Little Rock, AR
- Janet Lindsley**, Ph.D., Department of Biochemistry, University of Utah School of Medicine, Salt Lake City, UT
- Clive Slaughter**, Ph.D., Department of Biochemistry, Medical College of Georgia, University of Georgia, Athens, GA.
- 2:10 - 3:00 pm **A nutrition exercise in the medical school curriculum - Chin-To Fong**, M.D., Department of Biochemistry and Biophysics, University of Rochester, Rochester, NY
- 3:00 - 3:15 pm **Break**

3:15 - 5:15 pm

Working Sessions to create student objectives and competencies in biochemistry (5 concurrent sessions):

Lipid metabolism

Water Oaks 1

Moderator: **Michael Lea**, Ph.D., Department of Biochemistry and Molecular Biology, University of Medicine and Dentistry of New Jersey - New Jersey Medical School, Newark, NJ

Signaling, hormones, and diabetes

Water Oaks 2

Moderator: **Gwynneth Offner**, Ph.D., Department of Medicine, Boston University School of Medicine, Boston, MA

Protein and amino acid metabolism

Water Oaks 3

Moderator: **David Franklin**, Ph.D., Department of Biochemistry, Tulane University, New Orleans, LA

Nucleotide metabolism

Library

Moderator: **Richard Sabina**, Ph.D., Oakland University, William Beaumont School of Medicine, Rochester, MI

Nutrition

Creekside Room

Moderator: **Selina Noramly**, Ph.D., Department of Biochemistry and Molecular Genetics, University of Virginia School of Medicine, Charlottesville, VA

5:30 - 6:30 pm

Closed-door meeting of outgoing and incoming planning committee members

Library

7:00 - 10:00 pm

Farewell Dinner

Creekside Room

Richard Sabina, Ph.D., Oakland University, William Beaumont School of Medicine, Rochester, MI; Chair, Association of Biochemistry Course Directors

Peter Ronner, Ph.D., Department of Biochemistry and Molecular Biology, Thomas Jefferson University, Philadelphia; Outgoing Chair, Association of Biochemistry Course Directors

Vote on overarching competencies in biochemistry

Discussion and vote on topics for the next ABCD meeting - Elected Planning Committee for 2013

Wednesday, May 4

- 6:30 - 7:45 am **Buffet Breakfast** Creekside Room
- Sign up to Share Taxis to Airport** Water Oaks Foyer
 Sheilah Jewart, Amazing Occasions
 (Sign-up is available starting Monday, May 2)
- 8:00 - 10:30 am **Plenary Session V: Continuing Education** Water Oaks
Moderators: **Tracy B. Fulton**, Ph.D., Department of Biochemistry & Biophysics, University of California San Francisco, San Francisco, CA, and **David Franklin**, Ph.D., Department of Biochemistry, Tulane University, New Orleans, LA
- 8:05 - 8:20 am **Phosphofruktokinase-1 Regulation: Too Much of a Good Theme? – Eric Niederhoffer**, Ph.D., Department of Biochemistry and Molecular Biology, Southern Illinois University, Carbondale, IL
- 8:30 - 8:45 am **Serotonin as a Growth Factor: It's Not Just a Neurotransmitter Anymore! - Bradford Jameson**, Ph.D., Department of Biochemistry and Molecular Biology, Drexel University College of Medicine, Philadelphia, PA
- 8:55 – 9:10 am **De Novo Fatty Acid Synthesis in Overfed Humans - James Shoemaker**, M.D., Ph.D., Edward A. Doisy Department of Biochemistry and Molecular Biology, Metabolic Screening Lab, Saint Louis University School of Medicine, St. Louis, MO
- 9:20 – 9:35 am **Connecting B₁₂ and Folate Deficiency to Neurological Changes - Michael Lieberman**, Ph.D., Department of Molecular Genetics, Biochemistry and Microbiology, University of Cincinnati, Cincinnati, OH
- 9:45 – 10:00 am **CETP Inhibition: Novel Therapy or Lurking Danger? - Michael King**, Ph.D., Indiana University School of Medicine, Terre Haute, IN
- 11:00 am **Check out / Departures**
(11:00 am is the official deadline to check out of your room at the Ocean Creek Resort)
Wait in the Water Oaks Foyer to share taxis to the airport.