Personalized Medicine

Friday, December 6th, 2013
University of Florida Health Science Center
8:30am-4:00pm
We are delighted you could join us for a day full of opportunities! Health care professionals and teachers are once again “Partnering for Tomorrow’s Health” by sharing knowledge and insight to better educate the scientists and health care leaders of the future. Join us for a day of “Personalized Medicine” from the latest research to the clinical applications and all the fun in between.

Mini Medical School is an opportunity for middle and high school teachers to experience some of the many facets of the University of Florida’s College of Medicine, much like a medical or graduate student would. Participants visit clinical and research sites, attend lectures, engage in thought-provoking discussions, share ideas and gain an appreciation for the breadth of knowledge and discovery at the University of Florida.

We hope you will find the day enjoyable and educational. Within the University of Florida’s Health Science Center and UF Health, some of the most talented and gifted researchers and clinicians are housed. We are fortunate to be able to spend time with some of them as a sampling of the fascinating work taking place at the University of Florida.

2013 marks the thirteenth year of Mini Medical School. Your feedback is particularly important in shaping Mini Medical School’s future – the constructive comments received from the evaluations will be a tremendous help in planning for next year. Please complete the evaluation and return it before leaving at the end of the day.

University of Florida Medical Guild

The University of Florida Medical Guild was founded in 1959 as a non-profit volunteer organization. Through the fundraising and volunteer efforts of Guild members, extraordinary support is made possible for the J. Hillis Miller Health Science Center. The funds support scholarships for students in the College of Medicine and for projects throughout the Health Science Center and UF Health – the guild has raised over $20,000 for these awards.

Since the Guild underwrote Mini Medical School IV in 1996, this annual event has attracted participants from school age to retirees. For the past twelve years, Mini Medical School has focused on science educators throughout Florida, as it is through them that students will come to know the opportunities available to them through the study of science.

University of Florida Center for Precollegiate Education and Training

UF CPET is the University of Florida’s “umbrella” for the articulation and transfer of current science, technology, engineering and mathematics (STEM) by linking research faculty and students with K-12 school teachers and students through a variety of campus and statewide programs. For more than half a century, CPET has offered discovery-based learning opportunities for secondary school students and, in more recent years, for teachers. The infrastructure of this University Center allows efficient and effective use of resources to administer programs on campus and throughout Florida. Its programs incorporate bridging activities that include teachers, researchers and industry professionals in preparing and delivering effective STEM education and career opportunities from middle school through graduate school. National and state science education standards govern CPET instructional programs. Activities are designed around National Research Council and Florida criteria for students to learn skills and acquire knowledge, and for developing curricula.

As a Center in Academic Affairs, CPET involves more than 300 UF scientists and engineers annually in its outreach programs. CPET also has an established history of collaborations with local, regional and state schools, and with educational and scientific professional societies. Professional development programs supported by HHMI, NIEHS, NIH, NSF, Woodrow Wilson Foundation and the University of Florida expand the content knowledge, skills, resources, and enthusiasm of in-service teachers. They also forge long-term relationships with researchers that result in converting new expertise into measurably successful new learning modules for students.

Please visit our website at: http://www.cpet.ufl.edu for more information about our programs.
Mini Medical School 2013 was made possible by the following sponsors:
   Center for Precollegiate Education and Training
   UF Medical Guild
   UF Health

We would like to thank:
   Plenary Lecturers – Dr. Julie Johnson and Dr. Kristin Weitzel

   Breakout Session Presenters – Dr. Rhonda Cooper-Dehoff, Dr. Reginald Frye, Dr. Randy Hatton, Dr. Taimour Langaee, Dr. Felix Liu, Dr. Caitrin McDonough, Mr. David Nessl

   Panel Presenters – Ms. Amanda Elsey, Ms. Katie Eddleton, Dr. Kristin Weitzel

   UF Medical Guild Volunteers – Lynda Bucciarelli, Beth Anderson, Christine Gibbs, Marissa Fernan-Taasan

   UF CPET: Mary Jo Koroly (Director), Mike Anthony, Julie Bokor, Houda Darwiche, Nick Daughenbaugh, Harriet Ganious, Cathleen Huynh, Drew Joseph, Yasmin Kamkar, Charles Lawrence, Katie Meese, Christy Rodkin, Bridget Anderson, Charles Goldring

Mini Medical School is coordinated by the UF Center for Precollegiate Education and Training through an award from the University of Florida Medical Guild.

Center for Precollegiate Education and Training
UNIVERSITY OF FLORIDA
Celebrating 50 Years of Science Outreach!

334 Yon Hall
PO Box 112010
Gainesville, FL 32611
Phone: 352-392-2310
Fax: 352-392-2344
Email: cpet@cpet.ufl.edu
Web: www.cpet.ufl.edu

Find us on Facebook! http://www.facebook.com/UFCPET

~ 3 ~
Program Agenda – December 6th, 2013

8:30am-9:00am  Registration and Coffee
Location: Clinical Translational Research Building (CTRB) Lobby

9:00am-9:30am  Welcome
Location: 3rd Floor, Clinical Translational Research Building
Ms. Lynda Bucciarelli, President UF Medical Guild
Dr. Houda Darwiche, Post-Doctoral Fellow UF CPET
Dr. Mary Jo Koroly, Director UF CPET and
Research Associate Professor, Biochemistry and Molecular Biology

9:30am-10:15am  Presentation: Personalized Medicine and Pharmacogenomics
Location: 3rd Floor, Clinical Translational Research Building
Dr. Julie Johnson, Pharm.D., BCPS, FCCP
Dean and Distinguished Professor
Dept. of Pharmacotherapy and Translational Research

10:30am-11:10am  Breakout: Session One
Location: various sites.

11:30am-12:10pm  Breakout: Session Two
Location: various sites.

12:15pm-1:15pm  Lunch - Sponsored by UF Health
Location: Clinical Translational Research Building

1:30pm-2:15pm  Presentation: Personalized Medicine: A Prescription for the Future of Education
Location: 3rd Floor, Clinical Translational Research Building
Dr. Kristen Weitzel, Pharm.D., CDE, FAPhA
Clinical Associate Professor
Associate Director, Personalized Medicine Program
Dept. of Pharmacotherapy and Translational Research

2:30pm-3:15pm  Panel Presentation – UF Personalized Medicine Program
Location: 3rd Floor, Clinical Translational Research Building
Ms. Amanda Elsey, MHA, Program Manager PMP
Ms. Katie Eddleton, Research Coordinator, Health Outcomes and Policy
Dr. Kristen Weitzel, Pharm.D., Associate Director PMP

3:30pm Closing remarks/evaluation

~ 4 ~
Breakout Sessions
The following sessions will allow participants to delve deeper into a chosen topic area regarding personalized medicine. The room capacity for each session is 25 people and so attendance will be first come first serve. Sign-up sheets for the breakout sessions will be available upon check-in. When choosing the sessions you will attend, please make a note of the locations in order to efficiently move from room to room. CPET staff will be on-hand to assist you in finding the correct room for your session – enjoy!

Session 1 – 10:30-11:10am

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Session Topic</th>
<th>Room Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Randy Hatton</td>
<td>The Role of a P&amp;T Subcommittee in the Clinical Implementation of Pharmacogenomics</td>
<td>2161N</td>
</tr>
<tr>
<td>Dr. Taimour Langaee</td>
<td>Center for Pharmacogenomics Genotyping Core Lab</td>
<td>3161</td>
</tr>
<tr>
<td>Dr. Felix Liu and Mr. David Nessl</td>
<td>Informatics Implementation for Personalized Medicine Program</td>
<td>2161S</td>
</tr>
</tbody>
</table>

Session 2 – 11:30-12:10pm

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Session Topic</th>
<th>Room Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Rhonda Cooper-Dehoff</td>
<td>Human Subjects Research – Regulatory and Ethical Considerations</td>
<td>3161</td>
</tr>
<tr>
<td>Dr. Reginald Frye</td>
<td>Variability of Drug Responses</td>
<td>2161N</td>
</tr>
<tr>
<td>Dr. Caitrin McDonough</td>
<td>Pharmacogenomics Research: What Happens Before a Test Makes it to the Bedside</td>
<td>2161S</td>
</tr>
</tbody>
</table>
Campus Map

Map Legend

- **CTRB** – Clinical Translational Science Building
- **Parking** – UF Health Visitor Parking Garages
Plenary Lecturers

Julie Johnson, Pharm.D., FCCP, BCPS
Director, Personalized Medicine Program
Dean and Distinguished Professor
College of Pharmacy
Department of Pharmacotherapy and Translational Research
http://ptr.pharmacy.ufl.edu/about/faculty/julie-a-johnson-pharm-d-fccp-bcps/
Dr. Johnson received her Pharm.D. from the University of Texas at Austin and the UT Health Science Center at San Antonio. Upon graduation she completed a post-doctoral fellowship in cardiovascular pharmacology/pharmacokinetics at the Ohio State University. Dr. Johnson's research programs focus on inter-patient variability in drug response, particularly cardiovascular drug pharmacogenomics, and the influence of race/ethnicity on drug response and pharmacogenomics. The majority of her research centers around the pharmacogenomics of antihypertensive drugs, and drugs use to prevent clot formation. Her research has been continuously funded by the National Institutes of Health or the American Heart Association since 1990. She leads one of the groups funded by the NIH Pharmacogenomics Research Network, with a project focused on pharmacogenomics of antihypertensive drugs.

Kristin Weitzel, Pharm.D., CDE, FAPhA
Clinical Associate Professor
Associate Director, Personalized Medicine Program
College of Pharmacy
Department of Pharmacotherapy and Translational Research
http://ptr.pharmacy.ufl.edu/about/faculty/kristin-weitzel-pharm-d-cde-fapha/
Dr. Weitzel received her Pharm.D. from the University of Florida College of Pharmacy. After graduation, she completed a Community Pharmacy Residency at the Virginia Commonwealth University, Medical College of Virginia School of Pharmacy. Following her postgraduate training, Dr. Weitzel accepted an appointment as Clinical Assistant Professor at Mercer University School of Pharmacy in Georgia while also working as a Clinical Pharmacist at the Eckerd Patient Care Centers. In July of 2000, Dr. Weitzel began her affiliation at the University of Florida serving as a Clinical Assistant Professor in Gainesville and later as Adjunct Clinical Associate Professor while maintaining a practice as Outpatient Pharmacy Manager for the St. Vincent’s Health System in Orange Park, Florida. Dr. Weitzel has also served as Assistant Editor and later as Director of Editorial Projects at the Therapeutic Research Center. She became Director of Experiential Education in 2011 and began her current appointment as Associate Director of the Personalized Program in July 2013. Dr. Weitzel’s research interests include technology implementation in community pharmacy practice and preceptor training programs and personalized medicine.

Breakout Session Leaders

Rhonda Cooper-Dehoff, Pharm.D., MS, FAHA, FACC
Clinical Associate Professor
Associate Director, Personalized Medicine Program
College of Pharmacy
Department of Pharmacotherapy and Translational Research
http://cardiology.medicine.ufl.edu/about-us/meet-the-team/cooper-dehoff/
Dr. Cooper-Dehoff is Associate Director of the Center for Pharmacogenomics and Associate Professor in the Department of Pharmacotherapy and Translational Research and the Department of Pharmaceutics, College of Pharmacy, and in the Division of Cardiovascular Medicine, College of Medicine, at the University of Florida. Cooper-Dehoff's research interests include hypertension, metabolic syndrome and diabetes, and she is the principal investigator for the NIH-funded Career Development Award (K23) entitled "Metabolic Effects of Antihypertensive Drugs." She was also an investigator of the International Verapamil Trandolapril Study (INVEST) which evaluated hypertension treatments in elderly coronary artery disease patients, and is a co-investigator on two NIH grants evaluating pharmacogenetic associations in hypertension.
Dr. Reginald Frye, Pharm.D., Ph.D., FCCP
Professor and Chair
College of Pharmacy
Department of Pharmacotherapy and Translational Research
http://pharmacy.ufl.edu/faculty/reginald-frye/
Dr. Frye is a Professor and Chair for the Department of Pharmacotherapy and Translational Research College of Pharmacy. He received a B.S. in Biology from Oglethorpe University, a Pharm.D. from Mercer University School of Pharmacy, and a Ph.D. in Clinical Pharmaceutical Sciences from the University of Pittsburgh School of Pharmacy. After completing graduate work, Dr. Frye remained on faculty at the University of Pittsburgh from 1995 until 2003, being promoted to Associate Professor with tenure in 2002. He joined the faculty at the University of Florida in July 2003 and in July 2012, he was promoted to Professor.

Randy Hatton, Pharm.D., FCCP, BCPS
Director, Drug Information and Pharmacy Resource Center
Clinical Professor
College of Pharmacy
http://jobs.uhealth.org/allied-health/pharmacy/residency-program/preceptor-information/drug-information/
Dr. Hatton received his B.S. from St. Louis College of Pharmacy in 1977. After practicing as a hospital pharmacist specializing in nutritional support for three years, he completed his Pharm.D. at the University of Florida in 1982. He completed a fellowship in clinical pharmacology and pharmacokinetics at Shands and the University of Florida. In 2001, he was elected as a fellow of the American College of Clinical Pharmacy. Before going into drug information practice, Randy did research and development for pharmacy computer programs and practiced as a clinical specialist in internal medicine. For the last 25 years, Randy has practiced in the Drug Information Center, served as secretary of the Pharmacy and Therapeutics Committee, coordinated the Adverse Drug Reaction Program and edited and authored much of the Pharmacy/P&T Committee newsletter, which is published 10 times per year. Randy has broad research interests, has authored more than 90 articles and presents to local and national pharmacy organizations. Current interests include computerized drug information resources, adverse reactions, medication error prevention, factors influencing prescribing, drug interactions and evaluation of clinical services.

Taimour Langaee, MSPH, Ph.D.
Research Associate Professor and Graduate Coordinator
College of Pharmacy
Department of Pharmacotherapy and Translational Research
http://ptr.pharmacy.ufl.edu/about/faculty/taimour-langaee-msph-ph-d/
Dr. Langaee is a Research Associate Professor in the Department of Pharmacotherapy and Translational Research at the University of Florida (UF) College of Pharmacy and Director of the UF Center for Pharmacogenomics Genotyping Core Laboratory. Before joining the UF faculty in 2002, Dr. Langaee completed three years of post-doctoral fellowship in Immunology and Molecular Biology, and Microbiology and Molecular Genetics working on developing HIV vaccine at the College of Medicine University of Montreal and High Density DNA chips for Pseudomonas aeruginosa at the College of Medicine University of Florida. Dr. Langaee’s research interests are focused on pharmacogenetics (genetic-based variability in drug response) in cardiovascular and auto-immune diseases; pharmacogenomics of anticoagulants (Warfarin); Pharmacogenetics of Dichloroacetate(DCA); Clinical, Genetics and Microbial Interactions in Inflammatory Bowel Disease (IBD); Microbial resistance to antibiotics.

~ 8 ~
Felix Liu, Ph.D.
Associate Director, Data Warehousing and Clinically Integrated Networks
UF Health
Research Assistant Professor
Department of Pathology, Immunology and Laboratory Medicine
felix.liu@ufl.edu
Dr. Liu graduated from Tulane University with a PhD degree in Computational Chemistry. He conducted research in the area of structure-dynamics-function relationships of carbohydrates and proteins using NMR Spectroscopy and Molecular Modeling before moving into IT industry. He then joined the Ohio State University Medical Center and served as the manager of Research Informatics in the Data Warehouse group. He joined UF in November of 2011 as the Associate Director of Research IT at the AHC IT, and Director of the Clinical and Translational Science Information Technology program at the CTSI. Currently Dr. Liu holds the position of Associate Director of Clinically Integrated Network at UF Health Shands Hospital. Dr. Liu’s research interests are in secondary use of clinical and operational data, particularly in quality, clinical, and translational research.

Caitrin McDonough, Ph.D.
Research Assistant Professor
College of Pharmacy
Department of Pharmacotherapy and Translational Research
http://ptr.pharmacy.ufl.edu/about/faculty/caitrin-w-mcdonough-ph-d/
Dr. McDonough received a B.S. in Biochemistry (with a minor in chemistry) from the University of Iowa and then earned a Ph.D in Molecular Medicine and Translational Science from Wake Forest University School of Medicine. Dr. McDonough’s dissertation work focused on the Genetics of Type 2 Diabetic End-Stage Renal Disease in African Americans. After completing graduate studies, she joined the department as a Post-Doctoral Associate in Cardiovascular Pharmacogenomics under the direction of Dr. Julie Johnson. Dr. McDonough is an investigator in the Center for Pharmacogenomics and plays a central role in the development of genetics education programming for the UF&Shands Personalized Medicine Program; she also teaches Genetic Medicine concepts to pharmacy students in the Personalized Medicine course.

David Nessl, PMP, MBA
Chief Technology Officer
UF PathLabs
Department of Pathology, Immunology and Laboratory Medicine
David.nessl@ufl.edu
Mr Nessl is currently the Chief Technology Officer of the UF Department of Pathology and UF PathLabs where he focuses on translating research technology into clinical use and on optimizing the PathLabs business to be profitable. He is also the Informatics project manager for the successful Personalized Medicine Program at UF. David has been a consultant to organizations including the DoD and been brought in on a management team to rescue a quarter-billion dollar software development project at a Fortune 50 company. He’s also an adjunct professor in the Tapia School of Business at Saint Leo University where he teaches business strategy and startups.
Panel Discussion Participants

Amanda Elsey, MS
Program Manager
UF Personalized Medicine Program
aelsey@cop.ufl.edu
Amanda Elsey joined the College of Pharmacy as the manager of the Clinical and Translational Science Institute-led UF Health Personalized Medicine Program in August 2011. In June 2012 the University of Florida (UF) and UF Health Shands hospital launched a Personalized Medicine Program (PMP). The pilot implementation was CYP2C19 testing for patients undergoing a diagnostic cardiac catheterization to enable genotype-guided clopidogrel therapy. The UF Health PMP is currently focused on pharmacogenetic examples, but has built the program for wider translation of pharmacogenomics and genetics findings into clinical practice, positioning UF as a leader in genetic-guided care. Amanda’s responsibilities include the planning, development, organization, coordination and management of all activities of the Personalized Medicine Program. She facilitates all the key elements of the program and communicates regularly with faculty leaders to ensure the success of the program. Amanda brings in a background in clinical research coordination, health administration, exercise science and patient services. She holds a master’s degree in health administration from the University of North Florida and bachelor’s degrees from UF in fitness and wellness.

Katie Eddleton, MPH
Project Manager, Health IMPACTS for Florida
College of Medicine
Department of Health Outcomes and Policy
keddleton@ufl.edu
Katie Eddleton is the Lead Coordinator for the Implementation Science Program (ISP) of the Clinical and Translational Science Institute at the University of Florida’s College of Medicine. She is also the Project Manager of Health IMPACTS for Florida, a practice-based research network of primary care practices in a large geographic area of north and central Florida. Ms. Eddleton directed the three-year development of novel data collection software that allowed in-clinic data collection that was summarized and presented to the treating provider in real time. Ms. Eddleton began her professional career in 2006 with the University of Florida as a Research Coordinator with the Institute of Child Health Policy working on Medicaid and SCHIP program evaluation for the States of Florida and Texas. In 2008 she began working on research projects primarily related to children and adolescents’ health, cancer survivorship, and clinical interventions in primary care settings. Ms. Eddleton received a Bachelor of Arts in Anthropology from the University of Florida in 2001 and a Master of Public Health from the University of South Florida in 2005.

Kristin Weitzel, Pharm.D., CDE, FAPhA
Clinical Associate Professor
Associate Director, Personalized Medicine Program
College of Pharmacy
Department of Pharmacotherapy and Translational Research
http://ptr.pharmacy.ufl.edu/about/faculty/kristin-weitzel-pharm-d-cde-fapha/
Dr. Weitzel received her Pharm.D. from the University of Florida College of Pharmacy. After graduation, she completed a Community Pharmacy Residency at the Virginia Commonwealth University, Medical College of Virginia School of Pharmacy. Following her postgraduate training, Dr. Weitzel accepted an appointment as Clinical Assistant Professor at Mercer University School of Pharmacy in Georgia while also working as a Clinical Pharmacist at the Eckerd Patient Care Centers. In July of 2000, Dr. Weitzel began her affiliation at the University of Florida serving as a Clinical Assistant Professor in Gainesville and later as Adjunct Clinical Associate Professor while maintaining a practice as Outpatient Pharmacy Manager for the St. Vincent’s Health System in Orange Park, Florida. Dr. Weitzel has also served as Assistant Editor and later as Director of Editorial Projects at the Therapeutic Research Center. She became Director of Experiential Education in 2011 and began her current appointment as Associate Director of the Personalized Program in July 2013. Dr. Weitzel’s research interests include technology implementation in community pharmacy practice and preceptor training programs and personalized medicine.
Resources

The CPET website has several resources available for both teachers and students. A special page has been created with resources specific to Personalized Medicine, which can be accessed via the following URL (http://www.cpet.ufl.edu/teachers/mms/resources/). You can also reach the website by scanning the following QR code using your smartphone or tablet. If you do not already have a code reader on your device, a free app can be downloaded from the app store as per your provider (please ask Houda if you have any questions about this).