

CHANGING MEDICINE.
CHANGING LIVES.®

IOWA INSTITUTE OF HUMAN GENETICS

2nd Annual

Precision Genomic Medicine Conference

THURSDAY, MAY 02, 2019

University of Iowa Hospitals and Clinics
Pediatrics Conference Center
2415 JCP (2nd level near Elevator E)
200 Hawkins Dr., Iowa City



 UNIVERSITY OF IOWA
HEALTH CARE
Iowa Institute of Human Genetics

CONFERENCE SCHEDULE

8:30 Registration/Continental Breakfast

9:00 Welcoming Remarks

Patricia Winokur, MD; Richard Smith, MD

9:15 Session 1: Maternal and Fetal Medicine in Precision Medicine

- ◆ Diagnostic whole exome analyses in detected fetal anomalies and stillbirths
Keynote Speaker: *David Goldstein, PhD*
- ◆ Preimplantation genetic diagnosis and case study
Hakan Duran, MD/Rachel Whynott, MD
- ◆ Cell-free DNA screening
Mary-Kayt Jones, MS, CGC
- ◆ Preeclampsia biomarkers
Mark Santillan, MD, PhD
- ◆ Pregnancy outcomes and genetics
Andrea Greiner, MD
- ◆ Ethical considerations in prenatal screening
Anya Prince, JD
- ◆ Panel discussion

11:45 Lunch (provided)

1:15 Session 2: Neurology and Epilepsy

- ◆ Towards precision medicine in neurology
Keynote Speaker: *David Goldstein, PhD*
- ◆ Copy number variation in autism
Ted Abel, PhD
- ◆ MRI biomarkers in myotonic dystrophy type 1 (DM1)
Peg Nopoulos, MD
- ◆ Improved interpretation of genomic testing for developmental disorders using natural language processing-based phenome extraction from the electronic medical record
Ben Darbro, MD, PhD

2:45 Break

3:00 Session 3: Drugs and the Genome

- ◆ Reading a pharmacogenetics report
Colleen Campbell, PhD, MS, CGC
- ◆ Pharmacogenetic screening for pediatric cancer patients
Jason Cleppe, PharmD
- ◆ Pharmacogenetic screening for transplant patients
Tricia Suarez, PharmD
- ◆ Using pharmacogenomics in psychiatric conditions: how can we move forward?
Jordan Schultz, PharmD
- ◆ Drug repositioning
Morgan Sturgeon, Graduate Student

4:40 Summary and adjourn

Anne Kwitek, PhD



Iowa Institute of Human Genetics

SPEAKERS



Keynote Speaker: David Goldstein, PhD
Director, Institute for Genomic Medicine
Professor of Genetics and Development
Columbia University, New York

University of Iowa Health Care & Carver College of Medicine

- ◆ **Ted Abel, PhD**
Director, Iowa Neuroscience Institute; Interim Chair and DEO, Department of Pharmacology; Roy J. Carver Chair in Neuroscience; Professor of Molecular Physiology and Biophysics
- ◆ **Colleen Campbell, PhD, MS, CGC**
Assistant Director, IIHG; Director of Genetic Counseling Operations, UIHC; Clinical Assistant Professor of Internal Medicine
- ◆ **Jason Cleppe, PharmD**
Pediatric Oncology Clinical Pharmacy Specialist
- ◆ **Ben Darbro, MD, PhD**
Director, Shivanand R. Patil Cytogenetics and Molecular Laboratory; Associate Professor of Pediatrics
- ◆ **E. Hakan Duran, MD**
Clinical Associate Professor of Obstetrics and Gynecology; Clinical Research Director, REI Tissue Bank
- ◆ **Andrea Greiner, MD**
Clinical Associate Professor of Obstetrics and Gynecology
- ◆ **Mary-Kayt Jones, MS, CGC**
Associate Genetic Counselor, Obstetrics and Gynecology
- ◆ **Anne Kwitek, PhD**
Associate Director, IIHG; Associate Professor of Pharmacology and Internal Medicine
- ◆ **Peg Nopoulos, MD**
Chair and DEO, Dept. of Psychiatry; Professor of Psychiatry, Neurology, and Pediatrics
- ◆ **Mark Santillan, MD, PhD**
Assistant Professor of Obstetrics and Gynecology
- ◆ **Jordan Schultz, PharmD**
Assistant Professor, Psychiatry; Neurology; Pharmacy Practice and Science
- ◆ **Richard Smith, MD**
Director, IIHG and MORL; Professor of Otolaryngology, Pediatrics, Internal Medicine Molecular Physiology and Biophysics
- ◆ **Morgan Sturgeon, BS**
Graduate Student, Molecular and Cellular Biology Interdisciplinary Graduate Program
- ◆ **Tricia Suarez, PharmD**
Abdominal Solid Organ Transplant Pharmacy Specialist
- ◆ **Rachel Whynott, MD**
Reproductive Endocrinology and Infertility Fellow
- ◆ **Patricia Winokur, MD**
Executive Dean, Carver College of Medicine; Professor of Internal Medicine

University of Iowa College of Law

- ◆ **Anya Prince, JD**
Associate Professor of Law

GENERAL INFORMATION

Precision Genomic Medicine utilizes an individual's genome profile as a tool in managing patient health care. This rapidly growing field holds great promise in evolving medicine toward tailored treatments through integrative medicine, science, and technology, but it requires an underlying broad knowledge base by both the health care provider and the patient.

This educational event will provide health care professionals an introduction to the current areas of study, cases where Precision Genomic Medicine (PGM) is already employed in clinical practice, appraise what PGM can - and cannot - do, and possible benefits and challenges surrounding its implementation in standard practice. With the knowledge base gained from this conference, the health care provider should be able to decide if genomic information should be considered in their patient's treatment.

Educational Objectives

Upon completion of this program learner should be able to:

- ◆ Describe clinical uses of genomic information for diagnosing and treating patient conditions
- ◆ When appropriate, integrate patients' genomic information when predicting the best treatments for their patients' conditions
- ◆ Explain the concepts of PGM to their patients when applicable

Continuing Medical Education Credit

The University of Iowa Carver College of Medicine designates this live activity for a maximum of 5.75 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The University of Iowa Roy J. and Lucille A. Carver College of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

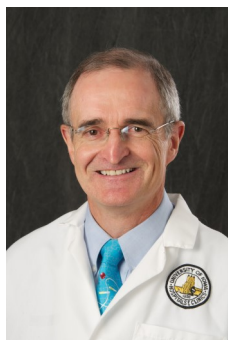
Determination of educational content for this program and the selection of speakers are responsibilities of the program director and planning committee. Firms providing financial support did not have input in these areas. Individuals with disabilities are encouraged to attend all University of Iowa-sponsored events. If you are a person with a disability who requires an accommodation in order to participate in this program, please contact the Iowa Institute of Human Genetics (IIHG) at 319-335-3688.

Everyone in a position to control the content of this educational activity will disclose to the CE provider and to attendees all relevant financial relationships with any commercial interest. They will also disclose if any pharmaceuticals or medical procedures and devices discussed are investigational or unapproved for use by the U.S. Food and Drug Administration (FDA).

Planning Committee:



Anne Kwitek, PhD



Richard Smith, MD



Colleen Campbell, PhD, MS, CGC

Contact Us:

Iowa Institute of Human Genetics

431 Newton Road, 117 EMRB

Iowa City, IA 52242-1078

Email: iihg@uiowa.edu

Phone: 319-335-3688

www.medicine.uiowa.edu/humangenetics

Disclosure Policies:

The University of Iowa prohibits discrimination in employment, educational programs, and activities on the basis of race, creed, color, religion, national origin, age, sex, pregnancy, disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, associational preferences, or any other classification that deprives the person of consideration as an individual. The university also affirms its commitment to providing equal opportunities and equal access to university facilities. For additional information on nondiscrimination policies, contact the Director, Office of Equal Opportunity and Diversity, the University of Iowa, 202 Jessup Hall, Iowa City, IA, 52242-1316, 319-335-0705 (voice), 319-335-0697 (TDD), diversity@uiowa.edu.

Individuals with disabilities are encouraged to attend all University of Iowa-sponsored events. If you are a person with a disability who requires an accommodation in order to participate in this program, please contact the Iowa Institute of Human Genetics in advance at 319-335-3688.