

The Future of Genomic Medicine VI

Thursday, March 7 and Friday, March 8, 2013 • Scripps Seaside Forum • La Jolla, California

*Presented in partnership with the
AAAS/Science Translational Medicine*

Science
Translational
Medicine



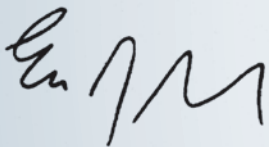
Scripps Translational
Science Institute

Dear Colleague,

In collaboration with AAAS/Science Translational Medicine we invite you to another exciting two-day program on Thursday, March 7 and Friday, March 8, 2013, in beautiful San Diego, California. This year's program will again be held at Scripps Seaside Forum.

The 6th Future of Genomic Medicine conference will provide a comprehensive sweep across the most salient opportunities in genomic medicine to change practice. These include rare and idiopathic diseases, cancer, pharmacogenetics and drug development, infectious disease, the microbiome, sequencing DNA of the unborn and newborn, and related advances that are occurring in the field. We will be also getting into bioethical, bioinformatic and regulatory issues with guidance from influential thought leaders. Our main sessions will be starting off with patient (in the first person) presentations to anchor clinical relevance. The overarching goal of the conference is to spearhead efforts to use genomic knowledge to change medicine and make it far more precise and individualized.

We look forward to your participation and another successful conference.



Eric J. Topol, MD
Course Director

Conference Highlights

- Two-day curriculum.
- Renowned faculty representing the country's leading institutions, chosen for their expertise, as well as teaching skills
- Multiple panel discussion segments with ample question and answer time with faculty.
- Additional networking opportunities.

Educational Objectives

- Demonstrate the unmet needs of medicine today with respect to more targeted, individualized prevention and treatments.
- Discuss the opportunities of the genome, proteome, metabolome discovery to change medical practice as it exists today.
- Assess how changes and advances in technology are rapidly ushering in a whole array of new pathways for individualized medicine of the future.
- Explore specific strategies in cancer, idiopathic and pharmacogenomic futuristic interventions.

Target Audience

- Physicians.
- Health care professionals of all disciplines interested in the future of medicine, especially with respect to individualized therapies.
- Human geneticists.
- Genomic scientists.
- Researchers.

About Scripps

Scripps Translational Science Institute (STSI), a collaborative bridge initiative between Scripps Health and The Scripps Research Institute, is transforming and integrating clinical and basic research by promoting interdisciplinary omics-based translational research efforts, which advance the field of individualized medicine. STSI is supported by the NIH flagship program, Clinical and Translational Science Award (CTSA). Besides Scripps, there are collaborations with the Sanford-Burnham Institute for Medical Research, Children's Hospital of Philadelphia, Genomics Institute of the Novartis Research Foundation, J. Craig Venter Institute, Salk Institute for Biological Studies, San Diego State University and the San Diego Supercomputer Center on the San Diego Mesa. The Institute emphasizes all three dimensions of translation: i) traditional bench-to-bedside, ii) bedside-to-bench and back-to-bedside, and iii) bedside to the community medicine. STSI harnesses the excitement of today's scientific advances to catapult tomorrow's preventions, betterment of health, and the training of future leaders of academic medicine.

For more information on the Scripps Translational Science Institute, visit stsiweb.org.

Scripps Health, a nonprofit health care system based in San Diego, California, includes more than 2,600 affiliated physicians and more than 13,000 employees at five acute-care hospital campuses, home health care services and a network of clinics, physician offices and outpatient centers. Scripps is committed to contributing to the future of medicine through its clinical research trials, graduate medical education and continuing medical education programs.

For more information on Scripps Health, visit scripps.org.

Program Thursday, March 7, and Friday, March 8, 2013

Thursday, March 07, 2013

- 7:30 a.m. *Registration and Breakfast*
- 8:00 a.m. **Welcome and Opening Remarks**
Eric J. Topol, MD, Director
Scripps Translational Science Institute
- 8:15 a.m. **Patient/Family # 1: Idiopathic Condition**

Morning Session: Sequencing Individuals

- 8:45 a.m. **Panoromics**
Michael Snyder, PhD
- 9:05 a.m. **The NIH Undiagnosed Disease Program**
William A. Gahl, MD, PhD
- 9:25 a.m. **Challenges and Successes in Idiopathic Diseases**
Howard J. Jacob, PhD
- 9:45 a.m. **Finding the Causative Mutation**
Ali Torkamani, PhD
- 10:05 a.m. *Break, View Exhibits and Networking*
- 10:30 a.m. **Controversies in Giving Data Back**
Gholson J. Lyon, MD, PhD
- 10:50 a.m. **What Data to Give Back**
Cinnamon S. Bloss, PhD
- 11:10 a.m. **Respecting Patients**
Misha Angrist, PhD
- 11:30 a.m. **Morning Session Panel Discussion/Q&A**
Morning Session I Speakers and Moderators
- Noon *Lunch, View Exhibits and Networking*

Afternoon Session I: Hot Topics in Genomic Medicine

- 1:15 p.m. **What Causes De Novo Mutations?**
Evan Eichler, PhD
- 1:35 p.m. **Big Data and Genomics**
Eric E. Schadt, PhD
- 1:55 p.m. **Bending the Cost Curve with Genomics**
Katrina Armstrong, MD, MSCE
- 2:15 p.m. **How Genomics Will Change Infectious Disease Diagnosis and Prescription**
George Weinstock, PhD
- 2:35 p.m. **Afternoon Session I Panel Discussion/Q&A**
Afternoon Session I Speakers and Moderators
- 3:00 p.m. *Break, View Exhibits and Networking*

Afternoon Session II: Hot Topics in Genomic Medicine (continued)

- 3:30 p.m. **The Under-Appreciated Epigenome**
Joseph R. Ecker, PhD
- 3:55 p.m. **Intersection of Genomics and Neonates**
Stephen F. Kingsmore, MB, ChB, BAO, DSc, FRCPATH
- 4:20 p.m. **Genomics of the Unborn**
Stephen Quake, DPhil
- 4:45 p.m. **Afternoon Session II Panel Discussion/Q&A**
Afternoon Session II Speakers and Moderators
- 5:15 p.m. *Adjourn*



Thursday Evening Welcome Reception at Scripps Seaside Forum

5:15–7:30 p.m.

Location: 8610 Kennel Way
La Jolla, California 92037

Exhibit and Support Opportunities

For information on exhibit and support opportunities during this and many other Scripps educational conferences, please contact:

Scripps Conference Services & CME

858-652-5400

med.edu@scrippshealth.org

scripps.org/conferenceservices

Friday, March 08, 2013

7:30 a.m. *Registration and Breakfast*

Morning Session: A Revamped Approach to Cancer and New Therapeutics

- 8:00 a.m. **Patient/Family # 2: Genetically Guided Cancer Prescription**
- 8:30 a.m. **What are the Fundamental Challenges?**
Siddhartha Mukherjee, MD, DPhil
- 9:00 a.m. **Sequencing to Guide Therapy**
Elaine R. Mardis, PhD
- 9:20 a.m. **Taking Genomics Into the Daily Practice of Oncology**
Danel D. Von Hoff, MD
- 9:40 a.m. **Beyond Genomic Health**
Randy Scott, PhD
- 10:00 a.m. *Break, View Exhibits and Networking*
- 10:30 a.m. **Toward Precision Medicine**
Susan Desmond Hellman, MD, MPH
- 10:50 a.m. **Drug Development in a New Era**
Elias Zerhouni, MD
- 11:10 a.m. **The Intersection of Genomics and Regulatory Issues**
Janet Woodcock, MD
- 11:30 a.m. **Morning Session Panel Discussion/ Q&A**
Morning Session Speakers and Moderators
- Noon **6th Annual Scripps Genomic Medicine Award Presentation**
Lunch, View Exhibits and Networking

Afternoon Session I: Predicting Susceptibility to Disease

- 1:15 p.m. **The Interplay of Genetic Architecture and Precision of Individual Risk Prediction for Common Disease**
Peter Visscher, PhD
- 1:35 p.m. **Sequencing Undiagnosed Conditions of Childhood**
David B. Goldstein, PhD

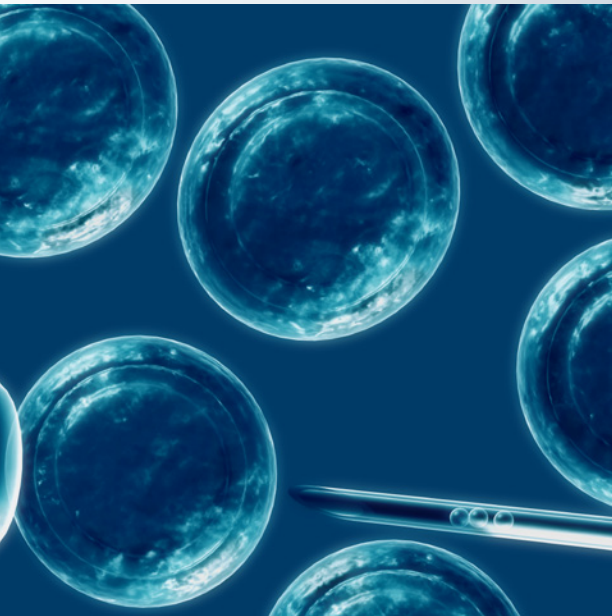
Industry Support

This course is supported, in part, by educational grants from industry, in accordance with ACCME accreditation Standards for Commercial Support. At the time of printing, a complete listing of commercial supporters was not available. Appropriate acknowledgement will be given to all supporters at the time of the educational activity.

- 1:55 p.m. **What We Will Be Able to Do**
George M. Church, PhD
- 2:15 p.m. **How the Microbiome Will Become the Big Player**
Jonathan Eisen, PhD
- 2:35 p.m. **How Does Big Data Change the Scene?**
Atul Butte, MD, PhD
- 2:55 p.m. **Drop Dead Healthy**
A.J. Jacobs
- 3:15 p.m. *Break, View Exhibits and Networking*
- 3:45 p.m. **A Window into Genetics of Aging from a Cohort of 100,00 Individuals**
Neil Risch, PhD
- 4:05 p.m. **How Insurers Can Adapt to Genomic Medicine**
Lonny Reisman, MD
- 4:25 p.m. **Making Sense of Sequence: Extracting Functional Information from Genetic Variation**
Daniel MacArthur, PhD
- 4:45 p.m. **Afternoon Session Panel Discussion/Q&A**
Afternoon Session Speakers and Moderators
- 5:00 p.m. *Adjourn*

Friday Evening Closing Reception at Scripps Seaside Forum

5–6 p.m.
Location: 8610 Kennel Way
La Jolla, California 92037



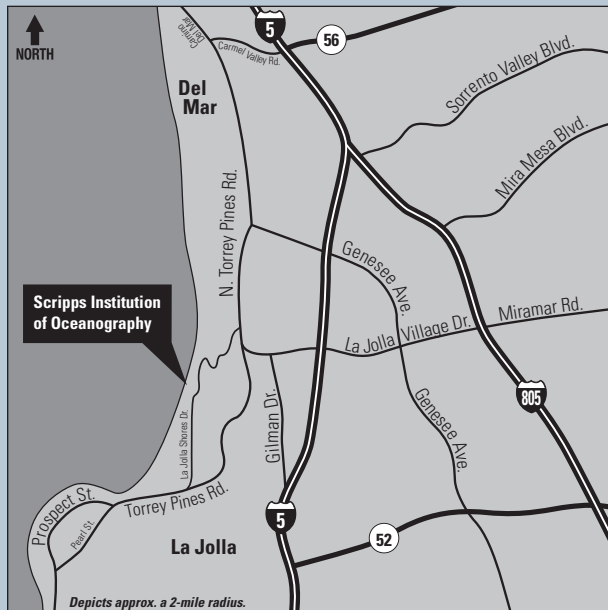
Conference Location

Scripps Seaside Forum

Robert Paine Scripps Forum for Science,
Society and the Environment

Samuel H. Scripps Auditorium

8610 Kennel Way
La Jolla, California 92037



Directions:

- From Interstate 5, head west on La Jolla Village Drive towards Birch Aquarium
- Make a left on Expedition Way
- Make a right on Downwind Way at the stop sign before the aquarium
- This road curves to the left so follow it to the end
- Make a left on La Jolla Shores Drive
- Make a right on El Paseo Grande
- Scripps Seaside Forum will be on your right

Parking and Transportation:

- **IMPORTANT! You CAN NOT** park in the lots outside of Scripps Seaside Forum. You will be ticketed.
- Directional parking signs will be displayed and additional information regarding available parking will be given upon registration.
- Parking is available in the underground parking lot at La Jolla Shores Hotel (\$5/day \$14/overnight) and at Kellogg Park (free). *Please see the front desk at the hotel and mention you are attending the Scripps Genomic Medicine Conference in order to obtain a parking pass to receive the discounted rate.*
- Street parking is also available.
- There will be a looping shuttle on Thursday, March 7 and Friday, March 8 between Estancia Hotel, La Jolla Shores Hotel, Kellogg Park and Scripps Seaside Forum.
- Handicap parking is available in the lots outside of the forum. These spots are marked and appropriate signage must be displayed.
- You may also park and walk to/from La Jolla Shores Hotel and Kellogg Park to Scripps Seaside Forum (approx. 15 min.).
- **UCSD Employees/Faculty/Students** are encouraged to park in a UCSD parking lot and take the SIO shuttle to/from Scripps Seaside Forum.

Recommended Lodging

Estancia La Jolla Hotel & Spa

9700 N. Torrey Pines Road
La Jolla, California 92037

Located only one mile from the conference venue, this beautiful hotel is situated adjacent to the Salk Institute for Biological Studies, the University of California San Diego (UCSD), the village of La Jolla, beaches, shopping, and San Diego's world-class attractions.

Make your reservations early! A specially priced block of rooms is being held until **February 18, 2013**. After that time, reservations will be accepted on a space and rate availability basis only. Be sure to request the Scripps reduced rate of only \$189 per night plus tax. This low rate also includes:

- Discounted parking \$8/day and \$15/overnight
- Complimentary guestroom internet service
- 10% Spa Discount, Monday – Friday for conference attendees

Reservations:

Online: estancialajolla.com (Enter code: **FOGMVI** when making your reservation online in order to receive the reduced rate)

Phone: 877-437-8262 (Reference **"Scripps Genomic Medicine Conference"** when making your reservation in order to receive the reduced rate)

La Jolla Shores Hotel

8110 Camino Del Oro
La Jolla, California 92037

Located only steps from the conference venue, La Jolla Shores Hotel is one of the select few hotels in San Diego situated directly on the beach.

Make your reservations early! A specially priced block of rooms is being held until **February 20, 2013**. After that time, reservations will be accepted on a space and rate availability basis only. Be sure to request the Scripps reduced rate of only \$160 per night plus tax for the Garden View Hotel room, \$175 per night plus tax for the Coast View room or \$185 per night plus tax for the Beach Front room. This low rate also includes:

- Discounted parking: \$5/day and \$14/overnight
- Complimentary guestroom internet service

Reservations:

Online: ljschoreshotel.com (Please enter group code **FOGMVI** when you "click here for special rates.")

Phone: 866-392-8762 (Please reference **"Scripps Genomic Medicine Conference"** when making your reservation)

La Jolla, California

La Jolla is known throughout the world for its beautiful beaches and year-round temperate weather. Nestled on the northern edge of San Diego, it is unique in that it maintains its quaint village atmosphere within a sophisticated cosmopolitan environment. A broad spectrum of cultural and recreational activities is also available in the metropolitan San Diego area, including the nationally acclaimed San Diego Zoo, Wild Animal Park, Sea World, the San Diego Opera, the Old Globe Theater, and the Museum of Contemporary Art, San Diego in La Jolla.

lajolla.com

sandiego.org

The Future of Genomic Medicine VI

Conference Fees

Space is limited, so register early!

Included: Registration includes the online learning module, course tuition, course materials, breakfasts, breaks, lunches and the welcome and closing reception.

Not Included: Travel costs, lodging, parking and dinners.

Upon registration you will receive information on how to access the online learning module. The objective of this module is to become familiar with the common terms, tools and current research being done in the area of genomic medicine.

Please note, this course does not offer Continuing Medical Education (CME) credits.

Main Conference		Pre-registration through Feb. 20, 2012	On-site after Feb. 21, 2013
Registration Fee		\$150	\$175*
Students, Residents and Fellows (Please enclose proof of status when registering)		waved	\$25*
On-site Registration Please note, pre-registration will be accepted through February 21, 2013. After this date, registration will only be accepted on-site and will incur an additional \$25 fee.			
Yes	Thursday Evening Welcome Reception I would like to attend the Welcome Reception (cost included in my registration)		
Yes	Friday Evening Closing Reception I would like to attend the Closing Reception (cost included in my registration)		
Do you give permission to publish your name and e-mail address to be distributed at the conference?		Yes	No

Please print clearly. By completing this registration form and returning it to Scripps you are acknowledging compliance with all attendance policies. Should we have any conference communications or updates please provide your direct contact information.

FIRST NAME, MI, LAST NAME		DEGREE (MD, DO, PhD, RN, etc)	
HOSPITAL/AFFILIATION/COMPANY		SPECIALTY	
DIRECT MAILING ADDRESS			
CITY		STATE	ZIP
DIRECT TELEPHONE		FAX	
EMAIL ADDRESS			
ASSISTANT NAME		ASSISTANT DIRECT TELEPHONE	
ASSISTANT EMAIL ADDRESS			

Please indicate any special needs (including dietary restrictions.)

Special requests will be considered and accommodated in full compliance with the Americans with Disabilities Act (ADA)

Office Use Only:	Date Received	Amount	Check No./Approval CD	Confirmation Sent	Initials
------------------	---------------	--------	-----------------------	-------------------	----------

Payment Method

___ CHECK Please make payable to: Scripps (in US Dollars only)

___ Visa ___ Mastercard ___ AMEX ___ Discover If paying by credit card, please complete the information below.

CREDIT CARD NUMBER	SECURITY CODE	EXPIRATION DATE
NAME ON CARD		
BILLING ADDRESS IF DIFFERENT FROM ABOVE		

AUTHORIZED SIGNATURE

DATE

Three Easy Ways To Register

Online: scripps.org/conferenceservices

Fax: 858-652-5565

Mail: Scripps Conference Services & CME
Genomic Medicine Conference
11025 North Torrey Pines Road
Suite 200, Maildrop: SCRC200
La Jolla, California 92037

Questions?

Contact: Scripps Conference Services & CME

Phone: 858-652-5400

Email: med.edu@scrippshealth.org

Attendance Policies

Registration Confirmation

A confirmation letter will be emailed or mailed to you upon receipt of the conference registration form and payment. If you have not received it within two weeks, please contact the Scripps Conference Services & CME office.

Attendee Cancellation, Substitution, Refund

The course tuition is refundable, minus a \$50 processing fee, if your cancellation is received in writing no later than February 21, 2013. Attendee substitutions are allowed, but notification must be made in writing by February 21, 2013. After this date, under no circumstances will refunds, credits, or substitutions be granted. No refunds or credits will be given to "no shows."

Guest Attendance Policy

All conference activities (including educational sessions, meal functions, exhibit hall, etc.) are exclusively reserved for conference attendees. Non-registered guests (including children, family members, colleagues, etc.) are not allowed in the conference areas. Badges provided at registration are required for entrance into all functions and will be strictly enforced.

Scripps Conference Modification or Cancellation

Scripps reserves the right to modify the course's schedule or program as necessary. Scripps also reserves the right to cancel this conference, in which case a full refund of the registration fee will be provided. We are unable to refund any travel costs (flight, hotel, etc.) in the case of Scripps cancellation.

Recording and Photography Clause

Scripps reserves exclusive rights to record (audio and video) and/or photograph all conference proceedings for use in marketing materials, presentations and course content sales.

Faculty 2013

Course Director

Eric J. Topol, MD

Director, Scripps Translational Science Institute
Chief Academic Officer, Scripps Health
Professor of Genomics, The Scripps Research Institute
La Jolla, California

Planning Committee

Cinnamon S. Bloss, PhD

Director of Social Sciences and Bioethics
Assistant Professor, Scripps Translational Science Institute
Scripps Health & The Scripps Research Institute
La Jolla, California

Nicholas J. Schork, PhD

Director of Research, Scripps Genomic Medicine
Scripps Health
Director of Biostatistics and Bioinformatics
The Scripps Translational Science Institute
Professor, Department of Molecular and Experimental
Medicine, The Scripps Research Institute
La Jolla, California

Ali Torkamani, PhD

Director of Drug Discovery
The Scripps Translational Science Institute
Assistant Professor of Molecular and Experimental
Medicine, The Scripps Research Institute
La Jolla, California

Conference Faculty

Misha Angrist, PhD

Assistant Professor of the Practice
Duke Institute for Genome Sciences & Policy
Duke University
Durham, North Carolina

Katrina Armstrong, MD, MSCE

Professor of Medicine
University of Pennsylvania School of Medicine
Philadelphia, Pennsylvania

Atul Butte, MD, PhD

Chief and Associate Professor of Systems Medicine
Department of Pediatrics
Stanford School of Medicine
Stanford, California

George M. Church, PhD

Professor of Genetics
Harvard Medical School
Director of Center for Computational Genetics
Boston, Massachusetts

Joseph R. Ecker, PhD

Professor, Genomic Analysis Laboratory
Salk International Council Chair in Genetics
Howard Hughes Medical Institute
The Salk Institute for Biological Studies
La Jolla, California

Evan Eichler, PhD

Investigator of the Howard Hughes Medical Institute
Professor of Genome Sciences
University of Washington
Seattle, Washington

Jonathan Eisen, PhD

Professor
UC Davis Genome Center
Department of Evolution and Ecology
Department of Microbiology and Immunology
University of California, Davis
Davis, California

William A. Gahl, MD, PhD

Clinical Director
National Human Genome Research Institute
Senior Investigator, Medical Genetics Branch
National Human Genome Research Institute
Bethesda, Maryland

David B. Goldstein, PhD

Director, Center for Human Genome Variation
The Richard and Pat Johnson Distinguished
University Professor
Duke Center for Human Genomic Variation
Durham, North Carolina

Susan Desmond Hellman, MD, MPH

Chancellor
University of California, San Francisco
San Francisco, California

Howard J. Jacob, PhD

Director, Human and Molecular Genetics Center
Warren P. Knowles Chair of Genetics
Professor, Department of Physiology & Pediatrics
Medical College of Wisconsin
Vice Chair of Research, Department of Pediatrics
Children's Hospital of Wisconsin
Milwaukee, Wisconsin

A.J. Jacobs

Author of "Drop Dead Healthy"
Editor-at-Large
Esquire Magazine

Stephen F. Kingsmore, MB, ChB, BAO, DSc, FRCPath

Director, Center for Pediatric Genomic Medicine
Children's Mercy Center for Pediatric Genomic Medicine
Kansas City, Missouri

Gholson J. Lyon, MD, PhD

Assistant Professor in Human Genetics
Cold Spring Harbor Laboratory
Research Scientist
Utah Foundation for Biomedical Research
Philadelphia, Pennsylvania

Daniel MacArthur, PhD

Assistant Professor
Analytic and Translational Genetics Unit
Massachusetts General Hospital
Boston, Massachusetts

Elaine R. Mardis, PhD

Professor, Genetics and Molecular Microbiology
Co-Director of The Genome Institute
Washington University School of Medicine at
Washington University Medical Center
St. Louis, Missouri

Siddhartha Mukherjee, MD, DPhil

Assistant Professor of Medicine, Columbia University
Physician, Columbia University Medical Center
Author, "The Emperor of All Maladies: A Biography of
Cancer" (2011 Pulitzer Prize for Non-Fiction)
New York, New York

Stephen Quake, DPhil

Professor of Bioengineering
Co-Chair, Department of Bioengineering
Investigator, Howard Hughes Medical Institute
Stanford, California

Lonny Reisman, MD

Senior Vice President
Chief Medical officer
aetna
Hartford, Connecticut

Eric E. Schadt, PhD

Jean C. and James W. Crystal Professor of Genomics
Professor and Chairman, Department of Genetics and
Genomic Sciences
Director, Institute for Genomics and Multiscale Biology
Mount Sinai School of Medicine
New York, New York

Neil Risch, PhD

Professor, Division of Biostatistics
Director, Institute for Human Genetics
University of California, San Francisco
San Francisco, California

Randy Scott, PhD

Chief Executive Officer
InVita™ Corporation
Redwood City, California

Michael Snyder, PhD

Stanford B. Ascherman Professor and Chair of Genetics
Director, Stanford Center for Genomics and
Personalized Medicine
Stanford, California

Peter Visscher, PhD

Professor of Quantitative Genetics
University of Queensland
Brisbane, Queensland
Australia

Daniel D. Von Hoff, MD

Physician-in-Chief, Distinguished Professor
Translational Genomics Research Institute (TGen)
Professor of Medicine, Mayo Clinic and
Chief Scientific Officer
Scottsdale Healthcare and US Oncology
Phoenix, Arizona

George Weinstock, PhD

Professor, Department of Genetics
Professor, Department of Microbiology
Associate Director, The Genome Institute
Washington University
St. Louis, Missouri

Janet Woodcock, MD

Director, Center for Drug Evaluation and Research
U.S. Food and Drug Administration
Silver Spring, Maryland

Elias Zehrouni, MD

Sanofi
President, Global R&D
Paris, France





Conference Services & CME
11025 North Torrey Pines Road, Suite 200
La Jolla, CA 92037

The Future of Genomic Medicine VI

Thursday, March 7 and Friday, March 8, 2013
Scripps Seaside Forum—Scripps Institution of Oceanography
Robert Paine Scripps Forum for Science, Society and the Environment
Samuel H. Scripps Auditorium
La Jolla, California

Presented in partnership with the AAAS/Science Translational Medicine



The Future of Genomic Medicine VI

Thursday, March 7 and Friday, March 8, 2013
Scripps Seaside Forum • La Jolla, California

www.facebook.com/ScrippsCME

www.twitter.com/scrippshealth

www.youtube.com/scrippshealth



Scripps Conference Services & CME

858-652-5400

www.scripps.org/conferenceservices

