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THE HISTORY OF PRECISION MEDICINE: WHERE TECHNOLOGY MEETS SCIENCE

1871 – Fredrich Meischer identifies “nuclein”, now known as DNA, in the nucleus of cells
1910 – Albrecht Kossel is awarded the Nobel Prize for his discovery of the four base pairs
1950 – Erwin Chargaff discovers the complimentary base pairing system
1953 – Watson and Crick determine the double-helix structure of DNA
1961 – Codons discovered
1968 – Robert Holley wins Nobel Prize for sequencing first tRNA
1977 – Frederick Sanger develops first DNA sequencing method
1983 – PCR DNA Amplification technique developed by Kary Mullis at Cetus Corporation
1990 – Human Genome Project is launched with goal of 15 years
1993 – Fred Sanger opens the Sanger Center
1995 – First bacterial genome is sequenced
1999 – Chromosome 22 first chromosome fully sequenced, ensemble genome browser launched
2000 – Development of first prenatal diagnostic
2001 – First draft of the human genome released
2002 – Mouse is first mammal to have genome sequenced
2003 – Human genome project completed
2007 – New gene sequencing technology developed, increasing capability 70-fold
2008 – Apple introduces the iPhone
2010 – 1,000 genomes project results published
2012 – ENCODE study publishes 30 papers of results of active sites in genome
2013 – President Obama launches the Precision Medicine Initiative
2015 – US Supreme Court rules that naturally occurring DNA cannot be patented
2016 – Launch of the World Precision Medicine Congress USA in Washington, D.C. in partnership with the FDA

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“THE MORE WE LOOKED AT IT, USING GENETIC BIOMARKERS TO DEVELOP DRUGS FOR SPECIFIC PATIENT POPULATIONS, THE MORE WE REALIZED THAT THIS WAS THE FUTURE.”

Mark Clein  
CO-FOUNDER AND PRESIDENT  
PRECISION FOR MEDICINE GROUP

INDUSTRY LEADERS LEADING THE PRECISION MEDICINE REVOLUTION ARE SPEAKING AT WORLD PRECISION MEDICINE CONGRESS USA 2016
FEATURED KEYNOTE

MAKING PRECISION MEDICINE A REALITY IN OUR LIFETIME – THE FDA’S PLANS TO SUPPORT THE NEW PARADIGM

Dr. Robert Califf
FDA Commissioner

“TO ME, [THE POWER OF] GENETICS AND GENOMICS TO HELP US UNDERSTAND THE MOLECULAR BASIS OF DISEASE IS CRUCIAL FOR BEING ABLE TO TARGET THERAPIES BETTER THAN WE COULD BEFORE.”

“But it goes beyond genetics. If you look at the Precision Medicine Initiative, the emerging use of wearable technology and social media allows us to understand things like patient preferences and continuously record data that we couldn’t monitor before.”
DAY 1
14th November, 2016
1/4

PLENARY KEYNOTE: Precision medicine & healthcare delivery: Making precision medicine a reality in our lifetime through technology
- Unparalleled holistic and comprehensive approach to analyzing a patient’s genomic and proteomic make-up
- Precision treatment and clinical trials
- Importance of connectivity at hospitals and medical centers in pushing precision medicine forward
Gary Palmer, Chief Medical Officer, NantHealth

9:20

KEYNOTE PANEL: Putting a price on precision medicine: Is the dream of the Precision Medicine Initiative a financially feasible finale to the drug pricing wars?
- Is linking drug pricing to performance a realistic solution to the ballooning costs of the interim personalized/genetic medicine approach of using post-prescription pharmacogenomics to determine individual drug efficacy?
- Are payers prepared for a new reimbursement infrastructure, taking genomic diagnostics into account as we drive more towards a pre-emptive model?
- Are current drug distribution models efficient and appropriate for future precision therapies, where efficacy and dosing will be pre-determined?
MODERATOR: Amyam B. Jena, Faculty Research Fellow, National Bureau of Economic Research
Ed Pezalla, Vice President, National Medical Director for Pharmaceutical Policy and Strategy, Arista
David E. Ledbetter, Chief Scientific Officer, Geisinger Health System
Steve Rosen, Senior Director, Diagnostics Strategy, Novartis

10:00

Networking Coffee Break and speed networking

CELL THERAPY
11:00

Gene therapy and precision medicine: an overview
Robert Harit, Founder and CEO, Colgene Cellular Therapeutics

GENE THERAPY
11:00

Gene therapy and precision medicine: an overview
Michael Linden, Head of Gene Therapy, Pfizer

GENOMICS
11:00

Genomics as the enabling force in precision medicine
Brad Perkins, Chief Medical Officer, Human Longevity Inc

PERSONALIZED HEALTHCARE
11:00

3D printing as an enabling technology in non-genomic precision medicine: what will it take to get there?
Jonathan Morris, Assistant Professor of Neurology, Mayo Clinic

11:20

BIOPROCESSING AND MANUFACTURING

Methods and technologies for analytical development: cell counting
Carl Simon, BioMood, Biocomplexes and Biomaterials, National Institutes of Standards and Technology

APPLYING GENOME ENGINEERING
11:40

TALEN Gene editing enabling "off the shelf" CAR-T
Andre Choulika, Chairman and CEO, Collectix

GENOMICS
11:40

Outcome prediction using a blood test – a pulmonary fibrosis case study
Naftali Kaminsky, Professor of Medicine, The Yale School of Medicine

CLINICAL IMPACT OF GENOMICS
11:40

Rare disease diagnostics in newborns using whole genome sequencing
Benjamin Solomon, Chief, Division of Medical Genetics, Inova Healthcare Translational Medicine Institute

NEWBORN AND PRENATAL DX
11:40

Personalized to precision – moving from anonymized data to actionable individual results for implementing pharmacogenomics markers in the clinic
Murray Brilliant, Director, Center for Human Genetics, Marshfield Clinic

12:20

Networkung Lunch

PLENARY KEYNOTE: Precision medicine & healthcare delivery: Making precision medicine a reality in our lifetime through technology
- Unparalleled holistic and comprehensive approach to analyzing a patient’s genomic and proteomic make-up
- Precision treatment and clinical trials
- Importance of connectivity at hospitals and medical centers in pushing precision medicine forward
Gary Palmer, Chief Medical Officer, NantHealth

12:00

BIOPROCESSING AND MANUFACTURING

Cell standardisation strategies to ensure consistency in precision medicine development and delivery
David Brindley, Director, CASMI (UK)

APPLYING GENOME ENGINEERING
12:00

CRISPR gene editing technology for targeted development in Oncology
Jason Moffatt, Professor, University of Toronto

CLINICAL IMPACT OF GENOMICS
12:00

Practicing better clinical trials to achieve better medicine: targeting the 55% of patients with actionable variables pointing to a specific trial instead of a drug
Mark Gardner, Chief Executive Officer, OmniSeq

NEWBORN AND PRENATAL DX
12:00

Next generation counseling for prenatal precision medicine
Meghan Carey, Executive Director, National Society of Genetic Counselors

14:00

Networking Lunch
### Day 1

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>2:40</td>
<td><strong>Fund Raising to Partnering to Adoption and Commercial Success</strong></td>
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<tr>
<td>3:00</td>
<td><strong>The promise and realities of regenerative medicines</strong></td>
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<tr>
<td>3:20</td>
<td><strong>Putting the patient first through AI analytics in combination therapy development</strong></td>
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<td>3:40</td>
<td><strong>Networking Coffee Break</strong></td>
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<tr>
<td>4:10</td>
<td><strong>Extracellular Drug Conjugates: a small molecule/antibody combination approach as an alternative to ADC technology in immunotherapy</strong></td>
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<td><strong>Cell and gene therapy delivery – utilizing iPSC-derived tissues as a simple solution for precision therapies</strong></td>
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<td>4:50</td>
<td><strong>Enhancing autologous cell therapies for the precision era</strong></td>
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<tr>
<td>5:10</td>
<td><strong>NCI-MATCH program: updates on the nation-wide trials and planning for the future</strong></td>
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<tr>
<td>5:30</td>
<td><strong>End of Conference and Networking Cocktails</strong></td>
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**Commercialization**

- **3:00** The promise and realities of regenerative medicines
- **3:20** Novel gene expression technologies as an alternative gene therapy driver in precision medicine

**Alternative Gene Therapies**

- **2:40** Fund Raising to Partnering to Adoption and Commercial Success
- **3:00** FOX-007 as a precision gene therapy for Recessive Dystrophic Epidermolysis Bullosa
- **3:20** Putting the patient first through AI analytics in combination therapy development

**Metabolomics**

- **3:00** The promise and realities of regenerative medicines
- **3:20** Patient selection approaches and actionable data using complex data from biomarker samples
- **4:10** Extracellular Drug Conjugates: a small molecule/antibody combination approach as an alternative to ADC technology in immunotherapy
- **4:30** Cell and gene therapy delivery – utilizing iPSC-derived tissues as a simple solution for precision therapies

**Companion Diagnostics**

- **2:40** Driving precision medicine forward through a joint metabolomics, genomics and microbiome analysis approach
- **3:00** Putting the patient first through AI analytics in combination therapy development
- **3:20** Patient selection approaches and actionable data using complex data from biomarker samples
- **4:10** Extracellular Drug Conjugates: a small molecule/antibody combination approach as an alternative to ADC technology in immunotherapy
- **4:30** Cell and gene therapy delivery – utilizing iPSC-derived tissues as a simple solution for precision therapies

**Novel Tools and Technologies for Regenerative Therapies**

- **2:40** Fund Raising to Partnering to Adoption and Commercial Success
- **3:00** FOX-007 as a precision gene therapy for Recessive Dystrophic Epidermolysis Bullosa
- **3:20** Putting the patient first through AI analytics in combination therapy development
- **3:40** Networking Coffee Break
- **4:10** Extracellular Drug Conjugates: a small molecule/antibody combination approach as an alternative to ADC technology in immunotherapy
- **4:30** Cell and gene therapy delivery – utilizing iPSC-derived tissues as a simple solution for precision therapies

**Data Analysis**

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**Physician-Pharma Interaction**

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PLENARY KEYNOTE: Biomarker driven patient stratification is bending the curve away from traditional Phase I, II and III trials and accelerating commercial launch

- Biomarker driven patient stratification is bending the curve away from traditional Phase I, II and III studies– leading to accelerated approvals based on fewer patients, earlier
- Understanding the scientific, logistical and practical changes in design and execution of clinical trials for precision medicine
- Demonstrating value to payers and hospital systems and the healthcare system implications of every disease becoming a rare disease

Chad Clark, President, Precision for Medicine

PLENARY KEYNOTE: Precision approvals: How biomarkers are blurring the lines in clinical development, progression, and treatment

- Partnerships for co-development of an HIT infrastructure: advantages over in-house development
- Integrating natural histories into EHRs for more accurate diagnoses
- Enabling the integration of drug-related genetic findings into clinical practice

10:30

Networking Coffee Break and speed networking

9:30

Networking Coffee Break and speed networking

9:00

PLenary: Precision medicine & healthcare delivery: Making precision medicine a reality in our lifetime through technology:

- Multi-sector partnerships to foster growth and innovation
- Building and regulating tools for detecting patients’ genomic patterns relevant to disease development, progression, and treatment
- Crowd-sourced, cloud-based informatics platform designed to advance the science and collaboration

Dr. Robert Califf, Commissioner, US FDA

10:30

Engineered autologous T-Cell Therapy
Charles Nicolette, CEO, Argo Therapeutics

11:00

Immunosequencing for a new class of immune diagnostics
Jianda Yuan, Director, Translational Immunology-Immunotherapy, Merck

11:30

Using small molecule epigenetic agents to induce immunotherapy and trigger tumor response
Stephen Baylin, Deputy Director, The Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins

1:30

Studying environmental contributions to human disease via epigenetics & genomics
Jan Scincinski, PhD and Chief Scientific Officer, EpigenRx

2:00

Novel Epigenetic therapies targeting angiogenesis, modifying metastasis by regulating epigenome
Kurtis Bachman, Head of Computational and Systems Biology, Janssen

2:30

Aetna: Vice President, National Medical Director for Pharmaceutical Policy and Strategy, Aetna

Michelle Penny, Director Computational Biology and Genomics, Southern Research Institute

3:30

Networking Coffee Break

15th November, 2016

1/3

Healthcare CIO-focused Roundtables

Genomic profiling moving into routine clinical care
Jeremy Segal, Director, Division of Genomic Pathology, University of Chicago

Cost of goods sold in Cell and Gene therapies: overcoming low ROI through rare disease designation?
Elizabeth Ottiggen, Project Manager, Rare Diseases, NIH

Contributing genetic results to public databases for use in clinical development
Vanessa Ranget-Miller, VP Genetic Services, Patient Crossroads

3:00

PANEL: Rare Diseases

- Is precision medicine the end of orphan drugs? How the orphan drug industry has impacted precision medicine
- Precision vs personalized: what’s the difference in a clinical setting?

1:30

PANELISTS:
- Ed Pezzella, Vice President, National Medical Director for Pharmaceutical Policy and Strategy, Aetna
- Sam Johnson, Director, Health Policy and Interprofessional Affairs, American College of Clinical Pharmacy (formerly of Kaiser Permanente)
- Jit Patel, Director, JDRF and Systems Biology, Janssen
- Michelle Penny, Director Computational Biology and Genomics, Southern Research Institute
- Michael Murray, Director, Genetics, Biogen
- Michelle Penny, Director, Computational Biology and Genomics, Biogen
- Nathan Price, Managing Director, JDRF and Systems Biology, Janssen
5:10 End of Conference

4:10 PrecisionFDA SHOWCASE

This portion of the event is for companies who have been involved with the PrecisionFDA initiative to showcase their work to an industry audience through short, 10-minute segments, and highlight the findings of the PrecisionFDA competitions. Check back soon for more information!

Register now at www.terrapinn.com/attendprecision

FEATURED KEYNOTE

PRECISION MEDICINE & HEALTHCARE DELIVERY: MAKING PRECISION MEDICINE AREALITY IN OUR LIFETIME THROUGH TECHNOLOGY

Gary Palmer
CMO
NANTHEALTH

NOVEL HOLISTIC AND COMPREHENSIVE APPROACHES TO ANALYZING A PATIENT’S GENOMIC AND PROTEOMIC MAKE-UP ARE STRESSING THE IMPORTANCE OF CONNECTIVITY AT HOSPITALS AND MEDICAL CENTERS IN PUSHING PRECISION MEDICINE FORWARD
WHAT IS PRECISION MEDICINE?

COMING FROM PHARMA & BIOTECH...

TOPIC: Cell and gene therapy delivery – utilizing iPSC-derived tissues as a simple solution for precision therapies
• Cell transfer to stem cells achieving clinical dose efficiently
• Helping to address the manufacturing gap using early preventative planning
• Understanding the regulatory framework for translational technologies

Eric David
SVP, Research and Development
ORGANOVO

TOPIC: Gene therapy and precision medicine: an overview
• Combining genomic disease knowledge and viral vectors for novel therapies
• AAV Gene therapy for hemophilia and blood disorders
• The issue of cost and ROI – can the precision medicine push overcome the pitfalls of Gene Therapy commercialization?

Michael Linden
Head of Gene Therapy
PFIZER

TOPIC: Methods and technologies for analytical development: cell counting
• Inability to reliably characterize cells as possibly industry’s greatest challenge
• Issue addressed with systematic approaches for assessing sources of uncertainty and improving confidence in key measurements
• Applying these strategies will help to establish qualified assays for cell characterization which help streamline regulatory approval and enable more efficient development

Andre Choulika
Chairman and CEO
CELLECTIS

TOPIC: The "strategic healthcare system": evaluating strategies for companion diagnostics in clinical development
• Mass spectrometry for biomarker discovery in metabolomics – driving from translational to clinical developments
• Discussing the “cutoff” of companion diagnostics and regulatory incentives for the combined approach
• Developing a more strategic approach to clinical trial design using metabolomics and statistics

Amir Handzel
Head of Statistics
ASTRAZENECA

TOPIC: The cancer precision medicine - What we know, what we think we know, and what we really need to know
• Insights into patient selection strategies
• What is the testing implementation on the pathway to approval and the pathway post-approval?
• Best practices when partnering with health authorities
• What are some of the issues for resolution in the cost model?

Richard Buller
Vice President and Head, Clinical Development
PFIZER ONCOLOGY

TOPIC: Cancer precision medicine: an overview
• How autologous cell therapies have laid the groundwork for precision medicine
• Moving forward – working towards manufacturing to scale and standardization
• What the coming new drug pricing infrastructure means for cell therapy producers

Robert Hariri
Founder and CEO
CELGENE CELLULAR THERAPEUTIC

TOPIC: Cell therapy and precision medicine: an overview
• Using deep learning AI to understand patient needs at the point of treatment
• restoring efficacy of immunotherapy treatments in oncology with radical oxygen and nitrogen based epigenetic drugs
- Acquired resistance to chemotherapy results in early disease progression and lower survival
- ROS-mediated epigenetic changes block the promise of not only restoring efficacy to immunotherapy treatments
- Rdr2-021 mediated reactivation in the context of an ongoing Phase 2 clinical trial in metastatic colorectal cancer

Jan Sciscianski
CEO, BERG LLC

TOPIC: Novel Epigenetic therapies targeting angiogenesis, modifying metastasis by regulating epigenome
• Epigenetics can answer the question of stem cell efficacy and lineage changes
• Epigenetic memory and retained programming as both a marker and tool
• Cancer stem cell biology and epigenetic biomarkers in oncology

Kurtis Bachman
Head of Computational and Systems Biology
JANSSEN

TOPIC: FCX-007 as a precision gene therapy for Recessive Dystrophic Epidermolysis Bullosa
• Addressing the underlying cause of RDEB by providing a functional Type VII collagen to affected areas
• Fibroblast genetically modified to express functional COL7
• Dermal fibroblasts are collected from the patient, autologous therapy

Mike West
CEO, BIOTIME INC. and Board Member
LIFEMAP SOLUTIONS

TOPIC: Sourcing and qualification for precision cell therapies
• Cellular starting materials and approaches for sourcing
• Specific challenges in starting material qualification for patient-specific products
• Off-the-shelf allogeneic products (multipotent or patient-specific products)

Jeffrey Reid
Executive Director, Head of Gene Therapeutics
REGENERON

TOPIC: Targeting inhibitor of pump in B-cell lymphomas overexpression in cancer cells to our advantage
• Using well-conserved sodium protein pump alternative to ADC technology in immunotherapy
• Extracellular Drug Conjugates: a small molecule/antibody combination approach as an alternative to ADC technology in immunotherapy
• Using well-conserved sodium protein pump overexpression in cancer cells to our advantage
• Targeting inhibitor of pump in B-cell lymphomas

James Prudent
President and CEO
CENTROSE THERAPEUTICS

TOPIC: Using sequencing and proteomics to progress interplay with cell therapy
• Vaccine and antibody components, and how they medicine therapy paradigm
• Combination therapy: Cell therapy as one piece in the puzzle to achieving precision medicine

Rahul Aras
CEO, JUVENTAS THERAPEUTICS

TOPIC: Unification of companion diagnostic development for speedier research
• Identifying drugs through HTS and lead identification using sequencing technologies
• Bridging diagnostic and therapeutic development during preclinical and clinical research
• Biomarker driven therapeutic – implementing metabolomics in the drug pipeline for disease identification

Prausn Mishra
Pre-Emptive Medicine at GENENTECH ROCHE

TOPIC: Using deep learning AI to understand patient needs at the point of treatment
• Restoring efficacy of immunotherapy treatments in oncology with radical oxygen and nitrogen based epigenetic drugs

Jeffrey Reid
Executive Director, Head of Gene Therapeutics
REGENERON

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Michael Linden
Head of Gene Therapy
PFIZER
WHAT IS PRECISION MEDICINE?

ANSWER 2: PUTTING THE PATIENT FIRST

Pharma and the top provider systems in the world will be showcasing how they are driving forward expanding treatment methods and growing their HIT infrastructure to match the growing genomics data boom.

COMING FROM HEALTHCARE PROVIDERS & PATIENT ORGANIZATIONS...

Jonathan Morris
Assistant Professor of Neurology
MAYO CLINIC

TOPIC: 3D printing as an enabling technology in non-genomic precision medicine: what will it take to get there?
- Perfecting imaging – how can we develop protocols for 3D printing and enhance segmentation tools towards patient specific tumors and wounds?
- How to improve software through intuitive anatomic knowledge?
- Faster, more reliable 3D printers using better materials as a catalyst for precision healthcare

Adam Resnick
Head of Precision Medicine Group
CHILDREN’S HOSPITAL OF PHILADELPHIA

TOPIC: Empowering limited data access communities: lessons from pediatric medicine
- Building an infrastructure around specimens and special patient communities
- Integration between stakeholders in consumer and commercial space
- Standardization of SOPs and organization of data availability

Murray Brilliant
Director, Division of Genomic Pathology
UNIVERSITY OF CHICAGO MEDICINE INSTITUTE TRANSLATIONAL RESEARCH

TOPIC: Personalized to precision – moving from anonymized data to actionable individual results for implementing pharmacogenomics markers in the clinic
- Identifying "actionable genes" to reduce contraindicated drug assignments
- Placing pharmacogenomics markers within EHRs to prevent interference with the clinical workflow
- Reducing the hindrance to preventative care of patients changing healthcare providers using HER interoperability

David Pearce
President of Research
SANFORD HEALTH

TOPIC: Integrating natural histories into EHRs for more accurate diagnosis
- Implementation of newborn screening at the state level to develop natural histories
- Importance of interoperability for EHR usage in genomics
- Impact of natural history screenings for Sudden cardiac death gene therapy clinical studies

Nathan Price
Professor and Associate Director
INSTITUTE FOR SYSTEMS BIOLOGY

TOPIC: Wellness as the cornerstone to precision medicine: wearable devices and data mining for early disease detection
- Understanding the interface between genomic sequencing and wearable devices for individual patient wellness
- Identification of actionable genes through data-mining for early diseases
- Using the patient-physician relationship as a vehicle for delivery of wellness information

Naftali Kaminski
Professor of Medicine
YALE UNIVERSITY SCHOOL OF MEDICINE

TOPIC: Outcome prediction using a blood test – a pulmonary fitness case study
- Solving the issue of early transplantation through utilization of modeling effects on referrals
- Distinguishing patient drug response through genotyping and metabolic identification
- Precision medicine isn't just genetics - Identifying innate immune markers for biomarker development and target discovery

Clay Clish
Head of Genomics
BROAD INSTITUTE

TOPIC: Genomics as the enabling force in precision medicine – attacking meaning to the sequence
- How machine learning capabilities are transforming the precision medicine landscape
- Predicting photograph-quality images from the genome
- Attaching real meaning to the genome sequence through unique bioinformatics platform integrating pharma, healthcare and reimbursement

Andres Hourtado-Lorenzo
Director of Translational Medicine
CROWN’S AND COLITIS FOUNDATION

TOPIC: Using small molecule epigenetic agents to induce bioreversibility for immunoimmunotherapy and trigger tumor responses
- Clinical data - triggering interferon response and immune response to begin tumor destruction
- DNA-hypomethylation agents and acetylation inhibitors as genome-altering agents for oncology
- Understanding the abnormalities of chromatin and methylation assembly that may account for the appearance of epigenetic abnormalities during tumor development, and how they mediate the transcriptional repression

Stephen Baylin
Deputy Director
THE SIDNEY KIMMEL COMPREHENSIVE CANCER CENTER, JOHNS HOPKINS

TOPIC: How can patient organizations generate valuable data – and use it to help push for precision care for their disease?
- Supporting patients and caregivers while educating physicians on the role that patient groups can undertake
- Identification of genetic risk factors for a new, seemingly random complication from disease and surgery
- Developing a registry for SCAD patients and family members, including genomic data

Katherine Leon
President
SCAD ALLIANCE

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Claudia Rizzini
Managing Director, Precision Medicine
BRIGHAM WOMEN’S HOSPITAL

TOPIC: Pulmonary Disease – Precision medicine outside of oncology: developing the infrastructure for patient history-based studies
- Genomic sequencing is becoming faster, cheaper, more accurate, and more available in a variety of contexts
- One major use-case for genomic sequencing is the ability to diagnose rare diseases which are common in aggregate, short-circuiting long, difficult, and expensive diagnostic workflows.
- In addition to providing answers, diagnosis through genomics may also impact medical care for patients both immediately and in the long-term.

Benjamin Solomon
Chief, Division of Medical Genetics
INOVA HEALTHCARE TRANSLATING MEDICAL INSTITUTE

TOPIC: Rare disease diagnostics in newborns using whole genome sequencing
- Coupling diagnostics with genetic counseling
- Tests to evaluate the health of both mother and baby even during the first trimester
- High resolution 4-D transvaginal probe that helps physicians view and detect fetal abnormalities earlier than ever

Brad Perkins
Chief Medical Officer
HUMAN LONGEVITY INC.

TOPIC: Putting the patient first – the vision of Precision Medicine from the Patient Perspective
- Understanding the disruptive forces behind rare disease research as the precursor behind precision medicine
- Emphasizing the role of patient groups and natural histories as a catalyst for precision therapies
- What is the future for rare diseases, and rare disease patient groups? How will they play into the new paradigm?

Patricia Welnit
CEO
RARE DISEASE UNITED FOUNDATION

TOPIC: Investing wisely in the right tools to entice patients to engage with healthcare providers
- Emphasizing the role of patient groups and natural histories as a catalyst for precision therapies
- What is the future for rare diseases, and rare disease patient groups? How will they play into the new paradigm?

Neal Ganguly
Chief Information Officer
JFK HEALTH SYSTEM

TOPIC: Integrated ambulatory and hospital EHR systems: Small health system perspective
- Partnerships for co-development of an HIT infrastructure: advances over in-house development

Rasu Shretha
Chief Information Officer
UPMC

TOPIC: How can patient organizations generate valuable data – and use it to help push for precision care for their disease?
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Jeremy Segal
Director, Division of Genomic Pathology
UNIVERSITY OF CHICAGO

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HUMAN LONGEVITY INC.

TOPIC: Putting the patient first – the vision of Precision Medicine from the Patient Perspective
- Understanding the disruptive forces behind rare disease research as the precursor behind precision medicine
- Emphasizing the role of patient groups and natural histories as a catalyst for precision therapies
- What is the future for rare diseases, and rare disease patient groups? How will they play into the new paradigm?

Katherine Leon
President
SCAD ALLIANCE

TOPIC: How can patient organizations generate valuable data – and use it to help push for precision care for their disease?
- Supporting patients and caregivers while educating physicians on the role that patient groups can undertake
- Identification of genetic risk factors for a new, seemingly random complication from disease and surgery
- Developing a registry for SCAD patients and family members, including genomic data

Claudia Rizzini
Managing Director, Precision Medicine
BRIGHAM WOMEN’S HOSPITAL

TOPIC: Pulmonary Disease – Precision medicine outside of oncology: developing the infrastructure for patient history-based studies
- Genomic sequencing is becoming faster, cheaper, more accurate, and more available in a variety of contexts
- One major use-case for genomic sequencing is the ability to diagnose rare diseases which are common in aggregate, short-circuiting long, difficult, and expensive diagnostic workflows.
- In addition to providing answers, diagnosis through genomics may also impact medical care for patients both immediately and in the long-term.
PARTICIPATING ORGANIZATIONS

PDO

FDA

precisionFDA

The Children's Hospital of Philadelphia

organovo

Pfizer

cellectis

Genentech

MAYO CLINIC

NIST

National Institute of Standards and Technology

U.S. Department of Commerce

AstraZeneca

Marshfield Clinic Research Foundation

NantKwest

NAN THEALTH

Pfizer Oncology

Human Longevity

Sanford Health

Institute for Systems Biology

Yale University School of Medicine

Celgene

FIBROCELL

SANFORD HEALTH

Juventas

Merck

BIO TIME

Broad Institutes

Crohn's and Colitis Foundation

Regeneron

InovaHealth Systems

Patient Crossroads

Provista Clinical Solutions

Saint-Gobain Healthcare

JFK Health

UPMC

U.S. Stem Cell

Toft Group

Riverwood

REASONS TO ATTEND

1. Hear from FDA Commissioner Robert Califf in a historical keynote on Precision Medicine and the FDA's future plans to help drive the industry.

2. Join the most comprehensive agenda on commercial and scientific challenges in Cell and Gene Therapies, as outlined from pharmaceutical giants like Celgene and Merck, as we drive next-generation therapeutics towards the new precision paradigm.

3. See brand new prenatal and newborn diagnostics technology being implemented in healthcare clinics, such as Inova Health Systems, and how early genomic testing will change how we do medicine.

4. Learn how pharma and healthcare providers are implementing technological advances into their clinical and research workflow from the CIOs of UPMC, Riverwood Healthcare and JFK Health System.

5. Where big pharma meets big healthcare: Be a part of the largest gathering in North America of pharma and providers towards moving precision medicine forward, bridging the gap between genomic information and R&D.

6. Witness groundbreaking high-level talks on the implementation of the PMI in the private sector, from speakers like Prasun Mishra, Precision Medicine Lead at Genentech Roche and Jeff Reid, Director of Genomics, Regeneron.

7. Sit down with Jeremy Segal, Director of Genomics at University of Chicago, as he discusses moving genomic profiling into routine clinical care.

8. Rare Diseases: See how the evolving precision medicine paradigm is changing the face of the Orphan Drug industry and rare diseases, from the perspective of payers, patients and pharma.

9. Putting the patient first: A wide array of perspectives from patient groups actively compiling natural histories of their diseases, including the Crohn's and Colitis Foundation, and the Rare Disease United Foundation.

10. Meet, discuss research, and do business with hundreds of other industry leaders using the Jublia Networking System, where you can search not just by name and title, but by the content of their work.

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REGISTER YOUR PLACE TODAY

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