MOLECULAR DIAGNOSTICS
Engaging the Practice of Bespoke Medicine

FEBRUARY 20-22, 2017 | SAN FRANCISCO, CA
Moscone North Convention Center

SESSION TOPICS INCLUDE:

• Keynote Session: Reimbursement Stories
• “Swimming with the Sharks” Challenge
• Personalized/Precision Medicine: Where Are We and Where Are We Going?
• Liquid Biopsy - The Promise and The Perils
• Looking for Biomarkers in Unusual Places
• Is The Companion Diagnostics Model for Drug Development Working?
• Wrestling with Big Data: Implications For Discovery, Reimbursement, Regulation, and Clinic
• Personalized/Precision Medicine: Where Are We and Where Are We Going?

TRICONFERENCE.COM/MOLECULAR-DIAGNOSTICS
CONFERENCE PROGRAMS

DIAGNOSTICS CHANNEL
Molecular Diagnostics
- Personalized Diagnostics
- Cancer Molecular Markers
- Circulating Tumor Cell and Liquid Biopsy
- Digital Pathology
- Precision Medicine
- PCR & NGS-Based Molecular Diagnostics
- Clinical NGS Diagnostics
- Genomic Sample Prep, Assay Development and Validation
- Molecular Diagnostics for Infectious Disease

CANCER CHANNEL
- Cancer Molecular Markers
- Circulating Tumor Cells and Liquid Biopsy
- Cancer Immunotherapy
- Combination Immunotherapy Design Models

GENOMICS CHANNEL
- Precision Medicine
- PCR & NGS-Based Molecular Diagnostics
- Clinical NGS Diagnostics
- Genomic Sample Prep, Assay Development and Validation

INFORMATICS CHANNEL
- Bioinformatics for Big Data
- Integrated Pharma Informatics

SYMPOSIA
- New Frontiers in CRISPR-Based Gene Editing
- Circulating Cell-Free DNA
- Point-of-Care Diagnostics
- Biomarkers for Cancer Immunotherapy
- Genomic Knowledge Bases, Annotation and Interpretation, Analysis and Visualization
- Microbiome-Based Precision Medicine - NEW Commercialization of Molecular Diagnostics

SUNDAY, FEBRUARY 19
1:00 pm Registration Open at Moscone North Convention Center
2:00 – 5:00 pm Afternoon Short Courses
5:30 – 8:30 pm Dinner Short Courses
8:30 pm Close of Day

MONDAY, FEBRUARY 20
7:00 am Registration Open and Morning Coffee
8:00 – 11:00 am Morning Short Courses
11:50 am – 1:00 pm Conference Programs
1:10 – 2:10 pm Luncheon Presentations or Lunch on Your Own
2:30 – 4:40 pm Conference Programs
5:00 – 6:00 pm Plenary Keynote Session
6:00 – 7:30 pm Grand Opening Reception in the Exhibit Hall with Poster Viewing
7:30 pm Close of Day

TUESDAY, FEBRUARY 21
7:30 am Registration Open and Morning Coffee
8:00 – 9:00 am Plenary Keynote Session
9:00 – 10:05 am Refreshment Break in the Exhibit Hall with Poster Viewing
10:05 am – 12:15 pm Conference Programs
12:25 – 1:25 pm Luncheon Presentations or Lunch on Your Own
1:25 – 2:00 pm Refreshment Break in the Exhibit Hall with Poster Viewing
2:00 – 4:10 pm Conference Programs
4:10 – 5:00 pm Hollywood Oscar Dessert Reception in the Exhibit Hall with Poster Viewing
5:00 – 6:00 pm Breakout Discussions in the Exhibit Hall
6:00 pm Close of Day

WEDNESDAY, FEBRUARY 22
7:00 am Registration Open and Morning Coffee
8:00 – 10:00 am Plenary Keynote Session
10:00 – 10:50 am Refreshment Break & Poster Competition Winners Announced in the Exhibit Hall
10:50 am – 12:30 pm Conference Programs
12:40 – 1:10 pm Luncheon Presentations or Lunch on Your Own
1:10 – 1:50 pm Refreshment Break in the Exhibit Hall with Poster Viewing
1:50 – 5:15 pm Conference Programs
5:15 Close of Conference Programs
5:15 Registration Open at Moscone South Convention Center for Dinner Short Courses
6:00 – 9:00 pm Dinner Short Courses

MONDAY, FEBRUARY 20 5:00 – 6:00 PM
Plenary Keynote Presentation:
One in a Billion: The Story of Nic Volker and the Dawn of Genomic Medicine
Amylyme Santiago Volker, Founder, Nicholas Volker One In A Billion Foundation
Liz Worthey, Ph.D., Faculty Investigator and Director, Software Development & Informatics, HudsonAlpha Institute for Biotechnology
Kathleen Gallagher, Reporter, Milwaukee Journal Sentinel; Co-Author, One in a Billion: The Story of Nic Volker and the Dawn of Genomic Medicine

TUESDAY, FEBRUARY 21 8:00 – 9:00 AM
Keynote Introduction: Sponsored by <insert Diacarta logo>
Next-Generation Precision Molecular Diagnostics Powered by XNA
Michael J. Powell, Ph.D., CSO, Diacarta
Plenary Keynote Presentation
Michael Karin, Ph.D., Distinguished Professor of Pharmacology, University of California, San Diego School of Medicine

WEDNESDAY, FEBRUARY 22 8:00 – 10:00 AM
Plenary Session Panel: Emerging Technologies and Industry Perspectives
Moderator/Chairperson: Keith F. Batchelder, M.D., CEO and Founder, Genomic Healthcare Strategies
Panelists:
- Christopher Mueller, Ph.D., President & CTO, Lab7 Systems
- Christopher Ianelli, M.D., Ph.D., Founder & CEO, iSpecimen
- Dick Rubin, President, Biocartis
- Russell Garlick, Ph.D., CTO, SeraCare Life Sciences
- Sean Ferree, Ph.D., Vice President, Diagnostic Development, NanoString Technologies
- Fariedh Bischoff, Ph.D., Chief Clinical Development Officer, North America Menarini Silicon Biosystems

Sponsored by
SUNDAY, FEBRUARY 19, 2017 | 2:00 - 5:00 PM

SC1: Translating CTCs for Clinical Use
Joshua M. Lang, M.D., MS, Assistant Professor of Medicine, Carbone Cancer Center, University of Wisconsin
Amado Zurita-Savedra, M.D., Associate Professor, MD Anderson Benjamin Casavant, Ph.D., Vice President, Tasso

SC2: NGS Assay Selection, Validation and Compliance
Eric Duncavage, M.D., Assistant Professor, Pathology & Immunology, Washington University School of Medicine (AMP 2016 Training & Education Committee, Member)
Christina Lockwood, Ph.D., DABCC, FACB, Assistant Professor, Department of Laboratory Medicine; Associate Director, Genetics and Solid Tumor Diagnostics Laboratory, University of Washington (AMP Member)
Shashikant Kulkarni, Ph.D., Professor, Molecular and Human Genetics; Co-Chair, Research, Molecular and Human Genetics, Baylor College of Medicine; CSO, Baylor Miraca Genetics Laboratories; Vice President, Operations, Baylor Miraca Genetics Laboratories (AMP Member)

SC3: Sequencing 101
Ryan Kim, Ph.D., Director, Korean Bioinformatics Center (KOBIC), Korea Research Institute of Bioscience & Biotechnology (KRIBB)

SC4: Coverage and Reimbursement for Advanced Diagnostics
Girish Putcha, M.D., Ph.D., Director, Laboratory Science, Palmetto GBA (MolDX)
Katherine Tyman, Ph.D., Tyman Consulting LLC
Kurt Matthes, Vice President, RCM Reengineering and Service, Revenue Cycle Management, TELCOR, Inc.

SC5: Genomics in Drug Discovery and Development: Pharmaceutical Applications of NGS
Oleg Iartchuk, Genomics and NGS, Ph.D., Novartis Institutes for BioMedical Research, Inc.

SC6: Method Validation According to CLSI Guidelines
Shuguang Huang, Ph.D., CSO, St4ward LLC

SC7: Emerging Single Cell Analysis Techniques
Peter Sims, Ph.D., Assistant Professor, Systems Biology, Columbia University Medical Center

MONDAY, FEBRUARY 20, 2017 | 8:00 - 11:00 AM

SC12: Portable Sequencing
Kamlesh Patel, Ph.D., Manager, Advanced Systems Engineering & Deployment, Sandia National Labs
Michael S. Bartsch, Ph.D., Research Engineer, Biotechnology and Bioengineering, Sandia National Laboratories
Raga Krishnakumar, Ph.D., Bioinformatics, Sandia National Laboratories
SC13: Humanized Mouse Models for Pre-Clinical Assessment of Cancer Immunotherapy
Michael Brehm, Ph.D., Associate Professor, The Robert and Sandra Glass Term Chair in Diabetes, Diabetes Center of Excellence, Program in Molecular Medicine, University of Massachusetts Medical School
Barbara Joyce-Shaikh, Associate Principal Scientist, Merck Research Laboratories

SC14: Development of Bioassays for Checkpoint Immunotherapy
Mei Cong, Ph.D., Director, R&D Custom Assay Services, Promega

SC15: Digital PCR: Applications And Advances
Rebecca Sanders, Ph.D., Researcher, Molecular Biology, LGI

SC17: Commercialization Boot Camp: Manual for Success in Molecular Diagnostics
Harry Glorkian, Healthcare Consultant
Stan Skrzypczak, Vice President, Corporate Development and Reimbursement, Guardant Health, Inc.

SC18: From idea to Industry: A History of CAR T-Cells to Where We Are Today, and the Challenges of Commercialization
Ronald P. Dudek, President, Living Pharma, Inc.
Yeong (Christopher) Choi, Ph.D., Assistant Professor, Oncology; Member, Center for Immunotherapy; Director, cGMP Therapeutic Cell Production Facility, Roswell Park Cancer Institute
Cenk Sumen, Ph.D., Senior Manager, Business Development, PCT, a Caladrius company

SC19: Next-Generation Sequencing as a Diagnostics Platform
Karl V. Voelkerding, M.D., Professor of Pathology, University of Utah School of Medicine
Tina Hambuch, Ph.D., FACMG, Medical Director, Sandia National Laboratories
Eric Konnick, M.D., MS, FACP, Acting Assistant Professor, Associate Director, Genetics and Solid Tumor Laboratory Department of Laboratory Medicine University of Washington

SC20: Translating Preclinical Data in the Rational Design of Cancer Combination Therapies
Arijit Chakravarty, Ph.D., CEO, Fractal Therapeutics

SC21: Best Practices in Personalized and Translational Medicine
Andrew J. Mills, Senior Director, Sponsor Solutions, FIRECREST, ICON plc
Mark Evans, Associate Director, Technology Innovation & Bioinformatics, SOMA (US) LLC
Tom Plasterer, Ph.D., US Cross-Science Director, R&D Information, AstraZeneca

SC22: NGS for Infectious Disease Diagnostics
Scott Federman, Bioinformatics Programmer, University of California, San Francisco
Charles Chiu, M.D., Ph.D., Associate Professor, Laboratory Medicine and Medicine/Infectious Diseases, University of California, San Francisco

SC23: NIPT: What's Next in Technology Development
Peter Benn, Ph.D., Professor, Genetics and Genome Sciences, University of Connecticut Health Center

SC24: Flow Cytometry and Phenotypic Cell Analysis in Immuno-Oncology
Nathan Standifer, Ph.D., Scientist II, Clinical Pharmacology and DMPK, MedImmune
Mark Edinger, Scientific Advisor, Flow Cytometry, Q Squared
Yoav Peretz, Ph.D., Scientific Director, Capture Biosciences, Inc. (Formerly ImmuneCarta Services Inc.)
The roles of clinical validity and clinical utility in determining the medical usefulness of a molecular pathology testing procedure have been the subject of intensifying discussions. Qualitative criteria for clinical validity have historically been the standard for insurance coverage determinations. The variety and increasing complexity of molecular testing methodologies, especially Gene Expression Signatures and Next-Generation Sequencing (NGS) tests, are factors payers cite as reasons for comprehensive scrutiny of validity, outcomes and cost effectiveness. The practice of medicine is determined by the multidisciplinary healthcare team within a hospital/institution and represents the real battle ground where specific and individualized decisions are made involving all aspects of patient care. Often there is a disconnect between the advancing edge of the practice of individualized/personalized medicine and reimbursement policies. Examples highlighting these gaps and challenges will be presented. We will additionally explore solutions that focus on the best possible patient care under such limited reimbursement conditions and make the case for appropriate reimbursement in molecular genetic and oncology testing.

Dr. Pratt will provide an overview of AMP's published framework for evidence needed for clinical utility. She will compare and contrast the successes and challenges with the lack of or limited coverage decisions from the Medicare Administrative Contractors (MACs) in the case of germline pharmacogenetics, such as CYP2D6.

Dr. Chandra will review PathGroup’s experience with certain payers in garnering appropriate reimbursement. In addition, she will review how to demonstrate clinical utility through illustrative examples highlighting diagnostic, prognostic, and/or therapeutic utility across hematologic and solid tumor malignancies.

The story of cancer therapy has been gradually evolving with the continuing identification of subpopulations, therapeutic targets and driver and resistance mutations. In this context, the roles of clinical validity and clinical utility in determining the medical usefulness of a molecular pathology testing procedure have been the subject of intensifying discussions. Qualitative criteria for clinical validity have historically been the standard for insurance coverage determinations. The variety and increasing complexity of molecular testing methodologies, especially Gene Expression Signatures and Next-Generation Sequencing (NGS) tests, are factors payers cite as reasons for comprehensive scrutiny of validity, outcomes and cost effectiveness. The practice of medicine is determined by the multidisciplinary healthcare team within a hospital/institution and represents the real battle ground where specific and individualized decisions are made involving all aspects of patient care. Often there is a disconnect between the advancing edge of the practice of personalized medicine and reimbursement policies. Examples highlighting these gaps and challenges will be presented. We will additionally explore solutions that focus on the best possible patient care under such limited reimbursement conditions and make the case for appropriate reimbursement in molecular genetic and oncology testing.
targeting constitutively activated mutant or overexpressed oncoproteins will be discussed as evidence that this approach will remain important in Oncology for the foreseeable future.

10:55 The Investor’s Guide to Companion Dx: Conflicting Interests, Minimal Financial Returns, and Limited Barriers to Entry
Jonathan Groberg, MBA, Executive Director, UBS Investment Research

The hope in the clinical Dx world had been that companion Dx tests would finally solve many of the challenges that have plagued the novel molecular testing market. Instead, it has often appeared to accentuate these challenges and shine a light on the difficulties of investing in such tests: namely conflicting interests with biopharma partners, minimal returns on investment, and typically limited barriers to competitive entry. Is there a better approach?

11:10 PANEL DISCUSSION

11:45 Reaching the Pinnacle: A Unique Cancer Diagnostic Tool thatHarnesses the Power of RNA
Jon Armstrong, CSO, Cofactor Genomics

Cofactor’s Pinnacle assay generates a unique molecular profile for clinical cancer samples. Pinnacle provides quantitative insight for patient stratification and clinical studies by measuring the RNA expression across 318 prominent cancer genes and identifying fusions in 283 critical cancer-associated genes.

12:15 pm Session Break

12:25 Luncheon Presentation I: Lowering the Barriers for the Practical Implementation of High Precision Medicine
Rudi Pauwels, Ph.D., Founder & CEO, Biocartis

12:55 Luncheon Presentation II (Sponsorship Opportunity Available)

1:25 Refreshment Break in the Exhibit Hall with Poster Viewing
LIQUID BIOPSY - THE PROMISE AND THE PERILS

2:00 Chairperson’s Remarks
Girish Putcha, M.D., Ph.D., Director, Laboratory Science, Palmetto GBA (MolDX)

• Given the current state of the art, what are appropriate clinical applications for liquid biopsy-based tests and why? How are these different for circulating tumor DNA (ctDNA)-based versus circulating tumor cell-based approaches?
• What will liquid biopsy-based test developers need to prove to various stakeholders for such tests to gain widespread adoption, regulatory approval, and payer coverage and reimbursement for these different clinical applications; for example, for selection of targeted therapies, screening for cancer, minimal residual disease monitoring, etc?

2:05 Optimizing Cancer Treatment with Liquid Biopsies: The Example of Plasma EGFR Mutation Testing in NSCLC
Walter H. Koch, Ph.D., Vice President, Global Research, Roche Molecular Systems

The FDA recently granted the first liquid biopsy approval to the Roche cobas® EGFR Mutation Test v2 as a companion diagnostic for the non-small cell lung cancer therapy Tarceva®. Exploratory studies show that beyond therapy selection such tests may become important in monitoring therapy response, disease progression and resistance. There is further promise that liquid biopsy approaches will one day allow minimal residual disease monitoring, and early detection of cancer.

2:20 Regulation of Liquid Biopsies
Pamela Bradley, Ph.D., Staff Fellow, FDA

2:35 How Payers Are Considering Liquid Biopsy
Bryan Loy, M.D., MBA, Vice President, Oncology, Laboratory, and Personalized Medicine, Health Guidance Organization, Humana

Liquid biopsy based tests have the potential to provide a wide variety of clinical applications such as accurate diagnosis, prognosis, drug selection, or monitoring for disease recurrence. Payer interests include that these tests results are reliable, properly applied and are in fact valuable relative to existing alternatives.

2:50 PANEL DISCUSSION

3:40 Enabling Sequencing Technologies to Reach Their Full Potential
Brian Burke, Ph.D., Director, Business Development, Horizon Discovery

We’re close to something fantastic, the advancement in sequencing technologies (ie. liquid biopsies) is surpassing expectations and the promise of precision medicine is close to being fulfilled. We explore how reference materials help lower barriers so that every lab is able to achieve that gold-standard assay and deliver everything, every time.

4:10 Dessert Reception in the Exhibit Hall with Poster Viewing

5:00 Breakout Discussions in the Exhibit Hall (see website for details)
6:00 Close of Day

WEDNESDAY, FEBRUARY 22

7:00 am Registration Open

7:00 Breakfast Presentation (Sponsorship Opportunity Available) or Morning Coffee

8:00 Plenary Keynote Session (please see page 2 for details)

10:00 Refreshment Break and Poster Competition Winner Announced in the Exhibit Hall

10:50 SWIMMING WITH THE SHARKS

Companies seeking venture funding will pitch their company’s value proposition to a panel of judges and the top place winner will receive recognition as the “2017 Tri-Con Most Promising Company.”

Moderator: Alan B. Carter, CEO, Wobblebase, Inc
Panel of Judges:
Stan Rose, Ph.D., CEO, Transplant Genomics
Mark S. Boguski, M.D., Ph.D., Founder & CMO, Precision Medicine Network, Inc.
Harry Gronikian, Healthcare Consultant
Chris Heid, Treasurer and Board Member, Berkeley Angel Network

Jenny Cooke, Ph.D., Managing Director, 5 Prime Ventures
Selection and Coaching Committee
Alan B. Carter, CEO, Wobblebase, Inc
Chris Heid, Treasurer and Board Member, Berkeley Angel Network

11:45 Reaching the Pinnacle: A Unique Cancer Diagnostic Tool that Harnesses the Power of RNA

12:15 pm Session Break

12:25 Luncheon Presentation I: Lowering the Barriers for the Practical Implementation of High Precision Medicine

12:55 Luncheon Presentation II (Sponsorship Opportunity Available)

1:25 Refreshment Break in the Exhibit Hall with Poster Viewing

LOOKING FOR BIOMARKERS IN UNUSUAL PLACES

1:50 Chairperson’s Remarks
Karsten Schmidt, Ph.D., CTQ, Trovagene

2:00 Cell-Free DNA Investigation in Urine for Cancer Detection
David Berz, M.D., Ph.D., MPH, Assistant Professor, Department of Cellular Therapeutics, City of Hope Beckman Research Institute

2:30 Cell-Free DNA as an Analyte in Transplantation, Autoimmune Disease and Trauma
Dana W. Y. Tsui, Ph.D., Assistant Attending Geneticist; Member, Center for Molecular Oncology, Memorial Sloan Kettering Cancer Center

The analysis of cell-free DNA offers tremendous opportunity for molecular diagnostics. This talk will give a general overview of its applications across different clinical scenarios, focusing on its utility in monitoring organ transplantation, and its characteristics as an analyte in autoimmune disease, such as systemic lupus erythematosus, and its potential as a prognostic marker for trauma patients.

3:00 Central and Peripheral Biomarkers of Neurodegenerative Diseases
Mark Fraser, Senior Vice President, Research Programs, Michael J. Fox Foundation for Parkinson’s Research

Clinical trial success of novel disease-modifying drugs in neurodegenerative diseases is dependent upon the existence of reliable objective biomarkers that assist with patient selection, stratification, and data interpretation. Significant investments have been made in developing imaging, biochemical, and digital biomarkers for Parkinson’s disease. This talk will survey the current landscape of biomarkers for Parkinson’s and Alzheimer’s disease and emphasize the challenges and opportunities in neurodegenerative diseases.

3:30 Session Break

3:40 Enabling Sequencing Technologies to Reach Their Full Potential
Brian Burke, Ph.D., Director, Business Development, Horizon Discovery

We’re close to something fantastic, the advancement in sequencing technologies (ie. liquid biopsies) is surpassing expectations and the promise of precision medicine is close to being fulfilled. We explore how reference materials help lower barriers so that every lab is able to achieve that gold-standard assay and deliver everything, every time.

4:10 Dessert Reception in the Exhibit Hall with Poster Viewing

5:00 Breakout Discussions in the Exhibit Hall (see website for details)
6:00 Close of Day

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Evaluate Pigmented Skin Lesions to improve clinical outcomes and advance clinical knowledge. Documented electronic health data into an impactful digital health initiative to directly classify algorithms to better screen for cancer. Our work translates routinely digital samples of pigmented skin lesions at scale with mobile health technology. Diagnosis of skin cancer. We first leverage medical students in the clinics to capture common pigmented lesions for risk of melanoma. In this talk, I will describe our approach to develop a learning health system focused on precision screening and source resources will be presented.

4:15 From Bits to Bedside: Developing a Learning Digital Health System to Evaluate Pigmented Skin Lesions
Dexter Hadley, M.D., Ph.D., Assistant Professor, Pediatrics, Institute for Computational Health Sciences, University of California, San Francisco
Melanoma accounts for less than one percent of skin cancer cases but the vast majority of skin cancer deaths. Early screening and diagnosis significantly improves patient outcomes, yet no systematic framework exists for clinical evaluation of common pigmented lesions for risk of melanoma. In this talk, I will describe our approach to develop a learning health system focused on precision screening and diagnosis of skin cancer. We first leverage medical students in the clinics to capture digital samples of pigmented skin lesions at scale with mobile health technology. We then leverage this clinical big data to train state-of-the-art deep learning image classification algorithms to better screen for cancer. Our work translates routinely documented electronic health data into an impactful digital health initiative to directly improve clinical outcomes and advance clinical knowledge.

4:30 PANEL DISCUSSION

5:15 Close of Conference Program

WRESTLING WITH BIG DATA: IMPLICATIONS FOR DISCOVERY, REIMBURSEMENT, REGULATION, AND CLINIC

3:40 Chairperson’s Remarks
Andrew C. Fish, J.D., Executive Director, AdvaMedDx

3:45 Big Data – The Devil's in the Details
Elaine K. Jeter, M.D., J1 MolDx Medical Director, Palmetto GBA
Linking effective therapies and expanded trial designations are the expected benefit of the ever-expanding capabilities of genomic biomarker and gene expression identification. More and more data is being generated every day. Keeping that data valuable will require we maintain a critical focus on the quality and comparative values of the data, especially in the area of genomics and more specifically outcomes. Other questions will arise around where the data is collected, how it is curated, and who has access. As a Medicare payer, we support the concept of data collection aggregation if that data can be effectively mined to create ever improving treatment protocols and more importantly improved outcomes.

4:00 Efficiently Leveraging Commercial and Open Source Bioinformatics Tools for Clinical Interventions and Research Discoveries from Very Large Datasets
Ben Busby, Ph.D., Genomics Outreach Coordinator, NCBI, NLM/NIH
In precision medicine, it is often the case that efficacy does not depend on the appropriate computational intervention, but on the morphology of the data that informs the problem. For example, different strategies should be employed when calling short variants in stable versus unstable regions of the human genome, or when looking for pathogenic effectors in well-characterized versus newly discovered bacterial or viral pathogens. Pragmatic solutions from existing commercial and open source resources will be presented.

4:15 From Bits to Bedside: Developing a Learning Digital Health System to Evaluate Pigmented Skin Lesions
Dexter Hadley, M.D., Ph.D., Assistant Professor, Pediatrics, Institute for Computational Health Sciences, University of California, San Francisco
Melanoma accounts for less than one percent of skin cancer cases but the vast majority of skin cancer deaths. Early screening and diagnosis significantly improves patient outcomes, yet no systematic framework exists for clinical evaluation of common pigmented lesions for risk of melanoma. In this talk, I will describe our approach to develop a learning health system focused on precision screening and diagnosis of skin cancer. We first leverage medical students in the clinics to capture digital samples of pigmented skin lesions at scale with mobile health technology. We then leverage this clinical big data to train state-of-the-art deep learning image classification algorithms to better screen for cancer. Our work translates routinely documented electronic health data into an impactful digital health initiative to directly improve clinical outcomes and advance clinical knowledge.

4:30 PANEL DISCUSSION

5:15 Close of Conference Program

THE MOSCONNE SOUTH S CONVENTION CENTER

POST CONFERENCE SHORT COURSES

WEDNESDAY, FEBRUARY 22, 2017
6:00 - 9:00 PM | DINNER SHORT COURSES

SC25: Technologies, Applications and Commercialization of Point-of-Care Diagnostics
Holger Becker, Ph.D., Founder & CSO, microfluidic ChipShop GmbH

SC26: Detection and Characterization of Circulating Biomarkers
Catherine Alix-Panabières, Ph.D., Director, Laboratory of Rare Human Circulating Cells (LCCRH), Cellular and Tissular Biopathology of Cancers, University Medical Center of Montpellier
Klaus Pantel, M.D., Professor and Founding Director, Institute of Tumor Biology, University Medical Center Hamburg-Eppendorf, University of Hamburg

SC27: A Primer to Gene Editing: Tools and Applications
Fuguo Jiang, Ph.D., Damon Runyon Research Fellow, Laboratory of Dr. Jennifer Doudna, Department of Molecular and Cell Biology, University of California, Berkeley
Michael Bassik, Ph.D., Assistant Professor, Department of Genetics, Stanford University
Krishanu Saha, Ph.D., Assistant Professor, Department of Biomedical Engineering, & Wisconsin Institute for Discovery, University of Wisconsin-Madison

SC28: Genomics in the Service of Cancer Immunotherapy - Connecting DNA Repair, Mutational Processes and Genotoxic Therapy to Successful Cancer Immunotherapy
Zoltan Szallasi, Ph.D., M.D., Senior Research Scientist, Children's Hospital Informatics Program, Children's Hospital Boston, Harvard Medical School; Assistant Professor, Pediatrics, Harvard Medical School; Assistant Professor, Pediatrics, Boston Children's Hospital

SPONSOR, EXHIBIT & LEAD GENERATION OPPORTUNITIES

Comprehensive sponsorship packages allow you to achieve your objectives before, during, and long after the event. Signing on earlier will allow you to maximize exposure to hard-to-reach decision-makers.

Podium Presentations — Available within Main Agenda!
Showcase your solutions to a guaranteed, targeted audience through a 15- or 30-minute presentation during a specific conference program, breakfast, lunch, or separate from the main agenda within a pre-conference workshop. Package includes exhibit space, on-site branding, and access to cooperative marketing efforts by CHI. For the luncheon option, lunches are delivered to attendees who are already seated in the main session room. Presentations will sell out quickly, so sign on early to secure your talk!

One-on-One Meetings
Select your top prospects from the pre-conference registration list. CHI will reach out to your prospects and arrange the meeting for you. A minimum number of meetings will be guaranteed, depending on your marketing objectives and needs. A very limited number of these packages will be sold.

Plenary Keynote Introduction Sponsorship
This will allow you to introduce your company and the Keynote Presentations given by Pharma and Biotech thought-leaders during the Molecular Med Tri-Con in front of 1,000+ qualified delegates.

Invitation-Only VIP Dinner/Hospitality Suite
Sponsors will select their top prospects from the conference pre-registration list for an evening of networking at the hotel or at a choice local venue. CHI will extend invitations and deliver prospects, helping you to make the most out of this invaluable opportunity. Evening will be customized according to sponsor's objectives. (i.e.: Purely social, Focus group, Reception style, Pinted dinner with specific conversation focus

Additional branding & promotional opportunities include:

- Mobile App
- Hotel Room Keys
- Footprint Trails
- Staircase Ads
- Conference Tote Bags

- Literature Distribution (Tote Bag Insert or Chair Drop)
- Badge Lanyards
- Padfolios
- Program Guide Advertisement

Looking for additional ways to drive leads to your sales team?
CHI's Lead Generation Programs will help you obtain more targeted, quality leads throughout the year. We will mine our database of 800,000+ life science professionals to your specific needs. We guarantee a minimum of 100 leads per program!

Opportunities include:

- Live Webinars
- White Papers

- Market Surveys
- Podcasts and More!

CONTACT:

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781-972-5483 | jstroup@healthtech.com

Companies L-Z
Joe Vacca, MS, Associate Director, Business Development
781-972-5431 | jvacca@healthtech.com
TRI-CON ALL ACCESS PACKAGE - BEST VALUE! (FEBRUARY 19-24)

Includes: 2 Short Courses, 1 Conference Program, and 1 Symposium

| Registration after January 13th and Onsite | Commercial | $3399 | Academic, Government, Hospital-affiliated | $2299 |

STANDARD PRICING - A LA CARTE OPTIONS

SHORT COURSES (FEBRUARY 19-22)

- 1 Short Course: $799 (Commercial), $479 (Academic, Government, Hospital-affiliated)
- 2 Short Courses: $1079 (Commercial), $850 (Academic, Government, Hospital-affiliated)

Sunday, February 19
2:00 – 5:30 PM & 5:30 – 8:30 PM

Monday, February 20
8:00 – 11:00 AM

Wednesday, February 22
6:00 – 9:00 PM

CONFERENCE PROGRAMS (FEBRUARY 20-22)

Advance Registration until January 6th
Registrations after January 6th and Onsite

<table>
<thead>
<tr>
<th>Conference Program</th>
<th>Commercial</th>
<th>$2499</th>
<th>Academic, Government, Hospital-affiliated</th>
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DIAGNOSTICS CHANNEL

- (P1) Molecular Diagnostics
- (P2) Personalized Diagnostics
- (P3) Cancer Molecular Markers
- (P4) Circulating Tumor Cells and Liquid Biopsy
- (P5) Digital Pathology
- (P6) Precision Medicine
- (P7) PCR & NGS-Based Molecular Diagnostics
- (P8) Clinical NGS Diagnostics
- (P9) Genomic Sample Prep, Assay Development and Validation
- (P10) Molecular Diagnostics for Infectious Disease

GENOMICS CHANNEL

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CANCER CHANNEL

- (P3) Cancer Molecular Markers
- (P4) Circulating Tumor Cells and Liquid Biopsy
- (P11) Cancer Immunotherapy
- (P12) Combination Immunotherapy Design Models

INFORMATICS CHANNEL

- (P13) Bioinformatics for Big Data
- (P14) Integrated Pharma Informatics

SYMPOSIA (FEBRUARY 23-24)

| Symposia Pricing | Commercial | $1599 | Academic, Government, Hospital-affiliated | $1129 |

- (S1) New Frontiers in CRISPR-Based Gene Editing
- (S2) Circulating Cell-Free DNA
- (S3) Point-of-Care Diagnostics
- (S4) Biomarkers for Cancer Immunotherapy
- (S5) Genomic Knowledge Bases, Annotation and Interpretation
- (S6) Microbiome-Based Precision Medicine - NEW
- (S7) Commercialization of Molecular Diagnostics

ADDITIONAL REGISTRATION DETAILS

Each registration includes all conference sessions, posters and exhibits, food functions, and access to the conference proceedings link.

Handicapped Equal Access: In accordance with the ADA, Cambridge Healthtech Institute is pleased to arrange special accommodations for attendees with special needs. All requests for such assistance must be submitted in writing to CHI at least 30 days prior to the start of the meeting.

To view our Substitutions/Cancellations Policy, go to www.healthtech.com/regdetails. Video and audio recording of any kind is prohibited onsite at all CHI events.

TRICONFERENCE.COM

FOR ADDITIONAL INFO.

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