

CANCER METASTASIS THROUGH THE LYMPHOVASCULAR SYSTEM: BIOLOGY & TREATMENT

7TH INTERNATIONAL SYMPOSIUM - APRIL 20-22, 2017
SAN FRANCISCO, USA - HOLIDAY INN GOLDEN GATEWAY



Final Program


Cancer Metastasis



www.cancermetastasis.org

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Welcome!

This is a very exciting time to be involved in cancer research! The 7th iteration of the Symposium brings together international experts in oncology, immune-biology, pharmacology, molecular biology and molecular imaging to discuss preclinical, translational and clinical advances in diagnosing, treating and preventing cancer metastasis as we enter the era of precision medicine. With advancements in cancer care and patient-centered treatment planning, cancer survivors today live longer and enjoy a vastly improved quality of life than thought imaginable.

The organizing committee has worked hard to build a program that follows the journey of cancer metastasis from detection at the molecular level to genomic identification to precision treatment and survival. We sincerely appreciate the efforts everyone has made to be a part of this symposium and look forward to an innovative program. We would like to extend a special thanks to our sponsors and exhibitors, as this meeting would not be possible without their support.

The Symposium is sponsored by the Sentinel Node Oncology Foundation (SNOF), a 501(c)(3) non-profit organization founded in 2003 to advance the care and treatment of patients with solid cancer and to help develop new preventative strategies, diagnostics, and treatments.

Thank you for your participation and we hope you have a wonderful meeting experience.

Sincerely yours,
Symposium Co-Chairs:

Stanley P. L. Leong, MD

President, SNOF
Chief of Cutaneous Oncology
Associate Director of the Melanoma Program
Center for Melanoma Research & Treatment
California Pacific Medical Center & Research Institute

Jonathan S. Zager, MD

Treasurer, SNOF
Professor of Surgery
Cutaneous Oncology and Sarcoma Departments
Director of Regional Therapies and Chair of Graduate
Medical Education
Moffitt Cancer Center

Organizing Committee

STANLEY P.L. LEONG, MD, CO-CHAIR, California Pacific Med. Center, San Francisco, USA

JONATHAN S. ZAGER, MD, CO-CHAIR, Moffitt Cancer Center, Tampa, USA

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DALE HAN, MD, Yale School of Medicine, New Haven, USA

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MOHAMMED KASHANI-SABET, MD, California Pacific Medical Center, San Francisco, USA

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DONALD M. MCDONALD, MD, PHD, University of California, San Francisco, USA

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RICHARD L. WHITE, JR, MD, Carolinas HealthCare System, Charlotte, USA

MARLYS H. WITTE, MD, University of Arizona, Tuscon, USA

Program at a Glance

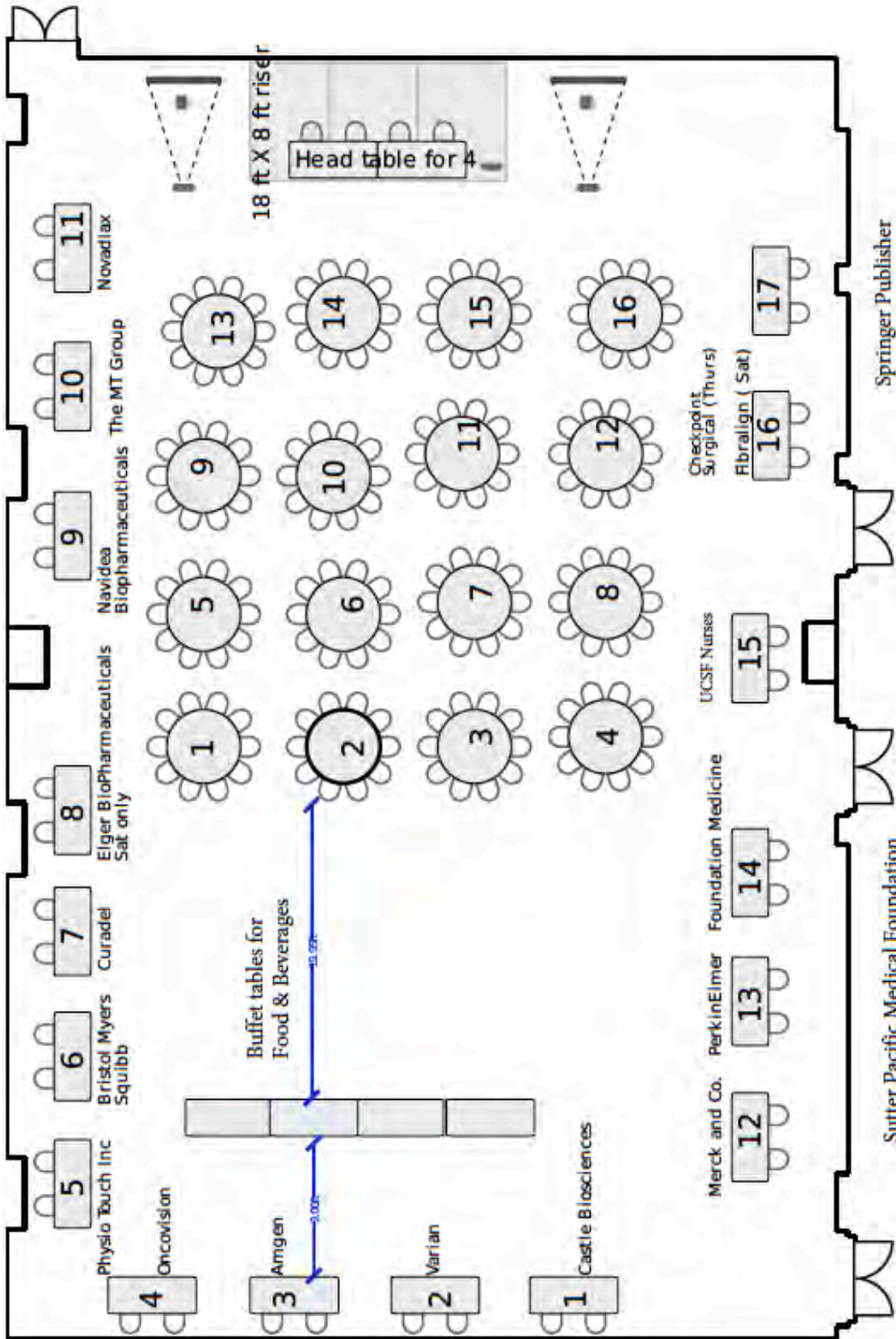
Thursday, April 20, 2017	Friday, April 21, 2017	Saturday, April 22, 2017
<p style="text-align: center;">07:30 - 08:30 Gold Rush Ballroom <i>Industry Breakfast Session</i> <i>Sponsored by</i> Foundation Medicine</p>	<p style="text-align: center;">07:30 - 08:30 Gold Rush Ballroom <i>Industry Breakfast Session</i> <i>Sponsored by Amgen</i></p>	<p style="text-align: center;">07:30 - 08:30 Gold Rush Ballroom <i>Industry Breakfast Session</i> <i>Sponsored by Curadel</i></p>
<p style="text-align: center;">08:35 - 08:45 Emerald Ballroom <i>Opening Remarks & Welcome</i></p>	<p style="text-align: center;">08:35 - 10:35 Emerald Ballroom <i>Henry Ford Health Systems</i> <i>Breast Cancer Metastasis to the</i> <i>Regional Lymph Nodes & Beyond</i> <i>Mini-Symposium</i> <i>CME Session</i></p>	<p style="text-align: center;">08:35 - 10:00 Emerald Ballroom Gold Rush Ballroom <i>CME Session</i> <i>Industry</i> <i>Sponsored</i> <i>Lymphedema</i> <i>Workshop</i></p>
<p style="text-align: center;">08:45 - 09:15 Emerald Ballroom <i>Keynote CME Session</i></p>		
<p style="text-align: center;">09:15 - 10:25 Emerald Ballroom <i>CME Session</i></p>		
<p style="text-align: center;">10:25 - 10:55 Coffee break /Exhibits/Posters Gold Rush Ballroom</p>	<p style="text-align: center;">10:35 - 11:05 Coffee break/Exhibits/Posters Gold Rush Ballroom</p>	<p style="text-align: center;">10:00 - 10:30 Coffee break/Exhibits/Posters Gold Rush Ballroom</p>
<p style="text-align: center;">11:00 - 12:35 Emerald Ballroom <i>CME Session</i></p>	<p style="text-align: center;">11:10 - 12:20 Emerald Ballroom <i>CME</i> <i>Session</i></p>	<p style="text-align: center;">10:35 - 12:20 Emerald Ballroom <i>Lymphedema Session/Patient</i> <i>Summit</i> <i>Mini-Symposium - CME Session</i></p>
<p style="text-align: center;">12:35 - 13:45 Gold Rush Ballroom <i>Industry Lunch Session</i> <i>Sponsored by Castle Biosciences</i></p>	<p style="text-align: center;">12:20 - 13:30 Crystal Ballroom <i>Industry Lunch Session</i> <i>Sponsored by Bristol-Myers Squibb</i></p>	<p style="text-align: center;">12:20 - 13:30 Gold Rush Ballroom Oregon Ballroom <i>Varian Sponsored</i> <i>Eiger</i> <i>Lunch Session</i> <i>Sponsored</i> <i>for LE Session</i></p>
<p style="text-align: center;">13:50 - 15:10 Emerald Ballroom <i>CME Session</i></p>	<p style="text-align: center;">13:35 - 15:05 Emerald Ballroom <i>CME Session</i></p>	<p style="text-align: center;">13:35 - 15:05 Emerald Ballroom <i>CME Session</i></p>

Program at a Glance *continued*

Thursday, April 20, 2017	Friday, April 21, 2017	Saturday, April 22, 2017						
<p style="text-align: center;">15:10 - 15:40 Coffee break /Exhibits/Posters Gold Rush Ballroom</p>	<p style="text-align: center;">15:05 - 15:35 Emerald Ballroom <i>Keynote CME Session</i></p>	<p style="text-align: center;">15:05 - 16:05 Emerald Ballroom <i>Trainee & Young Investigator</i> <i>Oral Abstract Presentations</i> <i>and Awards</i></p>						
<p style="text-align: center;">15:45 - 16:15 Emerald Ballroom <i>Keynote CME Session</i></p>	<p style="text-align: center;">15:35 - 16:05 Coffee break /Exhibits/Posters Gold Rush Ballroom</p>	<p style="text-align: center;">16:05 - 16:15 Emerald Ballroom <i>Closing Remarks</i> <i>Stanley, P.L. Leong, MD</i></p>						
<p style="text-align: center;">16:15 - 17:50 Emerald Ballroom <i>CME Session</i></p>	<p style="text-align: center;">16:10 - 17:20 Emerald Ballroom <i>Non-CME Session</i> <i>Town Hall</i></p>							
<p style="text-align: center;">17:50 - 19:30 Gold Rush Ballroom <i>Poster Session</i> <i>Poster Reception</i> <i>Exhibits</i> <i>Networking</i></p> <p style="text-align: center;"><i>Poster Presenters will be present at their posters to discuss their research.</i></p> <p style="text-align: center;"><i>Posters will remain up until Saturday.</i> <i>Non-CME</i></p>	<p style="text-align: center;">17:20 - 17:50 Emerald Ballroom <i>Non-CME Session</i></p>							
	<p style="text-align: center;">17:50 - 18:20 Emerald Ballroom <i>Non-CME Session</i></p>							
	<p style="text-align: center;">18:20 - 18:40 Emerald Ballroom <i>Non-CME Session</i></p>							
	<p style="text-align: center;">18:40 - 19:15 - Rapid Fire Oral Sessions</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 33%;">Oregon Ballroom</td> <td style="text-align: center; width: 33%;">Emerald Ballroom</td> <td style="text-align: center; width: 33%;">Gold Rush Ballroom</td> </tr> <tr> <td style="text-align: center;"><i>Micro-environment</i></td> <td style="text-align: center;"><i>Cancer Met & Treatment</i></td> <td style="text-align: center;"><i>Late-Breaking</i></td> </tr> </table>	Oregon Ballroom	Emerald Ballroom	Gold Rush Ballroom	<i>Micro-environment</i>	<i>Cancer Met & Treatment</i>	<i>Late-Breaking</i>	
	Oregon Ballroom	Emerald Ballroom	Gold Rush Ballroom					
<i>Micro-environment</i>	<i>Cancer Met & Treatment</i>	<i>Late-Breaking</i>						
<p style="text-align: center;">19:30 - 22:30 Crystal Ballroom <i>Gala Dinner in the Crystal Ballroom</i></p>								

Gold Rush Ballroom

Exhibits and Industry Sponsored Sessions



Visit the Exhibitors



The MT Group

Funding Statement

This activity is supported by educational grants from **Eli Lilly** and **Pfizer**.

Media Partners

Metastasis Research Society (MRS) Media Partner

Annals of Surgical Oncology Editor-in-Chief: Charles M. Balch Media Partner

Clinical and Experimental Metastasis Official Journal of the Metastasis Research Society Media Partner

Annals of Translational Medicine Official Journal of the Society for Translational Medicine (STM) Media Partner

Association of Northern California Oncologists Media Partner

General Information

Conference Homepage & Virtual Meeting

www.cancermetastasis.org (or use QR Code to the right):



Meeting App and USB Drive with Interactive Program & Abstracts

To access the self-contained interactive agenda and abstracts on the **Clearbridge BioMedics** sponsored USB drive, please open the **index.html** file. You can also access the Mobile App through this link: <http://coms.events/metastasis7/en/> (or scan the QR Code to the right):



Registration Desk Hours – Emerald Ballroom Foyer

For registration and general information.

Wednesday: 06:30 – 21:30 Exhibitor Setup

Friday: 07:00 – 19:50

Thursday: 06:30 – 17:50

Saturday: 07:00 – 16:15

Exhibition & Posters in the Gold Rush Ballroom

The Exhibits and Posters are located in the Gold Rush Ballroom on the Lower Lobby Level. Most industry sponsored breakfast and lunch sessions will also take place in the Gold Rush Ballroom. The Exhibits & Poster room will be open through the conference. Breakfast will be served from 7:00 – 8:00 AM and coffee breaks will also be in the Exhibit Area as well as a Poster Session Reception on Thursday. Lunches are reserved only for participants of the Industry Sponsored lunch sessions.

Badges

Participants are asked to wear their name badges at all functions during the conference.

Coffee Breaks

Coffee will be served in the Gold Rush Ballroom during the designated coffee breaks. Afternoon breaks will also include snacks, waters and soda.

Poster Session Reception

A Poster reception will take place on Thursday from 17:50 - 19:30.

Poster Sessions

Authors are requested to put up their posters from 8:30 – 10:30 on Thursday, and keep them up until 14:00 on Saturday. The posters will be available for browsing throughout the day on Thursday and Friday, and until 14:00 on Saturday. Presenters are required to stand by their posters during the designated poster session on Thursday from 17:50 - 19:30. Posters can be fixed with push pins that will be attached to the poster board. The size of your poster should be 1 square meter (39.37 inches X 39.37 inches).

Oral Presentations and Invited Speaker Presentations

The program lists the specific sessions including day and time of presentations, presentation numbers and session chairs. Presentations should be provided to the technicians in your session room on a USB flash drive. The technician will pre-load your talk onto a central computer to avoid delays between presentations. You need to be in the session room approximately 30 minutes prior to the session, so that loading of talks can be completed prior to the first presentations.

Speaker Ready Room

The Executive Conference Room located behind the Registration desk near the Emerald Ballroom is the designated Speaker Ready Room". It will be open during the registration hours so that you may prepare or preview your material prior to your oral presentation. If you are scheduled to speak in the morning, we ask you to check your presentation the afternoon before. For afternoon presentations, please check at least two hours prior to the beginning of your session.

Parking

There is a parking garage at the hotel for a cost of \$40 per day (rate subject to change). There are additional parking garages close to the hotel. Within 1 & 1/2 blocks from the hotel, there are 2 parking garages which offer \$15-16 full day valet garage parking (rates subject to change). To find one, please go to:

<http://sanfrancisco.bestparking.com>

Public Transportation

SFMTA makes it simple for visitors to get around the city with ease. A Visitor Passport can be purchased for 1, 3, or 7 consecutive days of unlimited rides on Muni, Muni Metro, historic streetcars, **and cable cars** (not including the BART). Single ride Cable Car tickets are also available.

VISITOR PASSPORT	price
Single Ride Cable Car Ticket	\$7.00
1-Day Visitor Passport	\$21.00
3-Day Visitor Passport	\$32.00

These Muni Visitor Passports are not valid on BART, other transit systems, tour buses, or for transportation to or from San Francisco International Airport (SFO). Passports are available at a number of sales locations throughout the City or can be purchased upon arrival at the SF International Airport Information Booth (Baggage Claims).

By Cable Car The famous California Street Cable Car Line, which is the least crowded and easiest to board, stops at California Street & Van Ness Avenue – just one block from the hotel providing easy access to Fisherman's Wharf, Union Square, Embarcadero, Financial District and Chinatown.

Handicap Accessibility

The hotel facilities are fully handicap accessible. We are happy to provide any assistance you may need during your visit to the conference.

Industry Sponsored Sessions

Industry Sponsored Non-CME Breakfast Sessions Thursday, Friday & Saturday from 7:30 – 8:30 AM in the Gold Rush Ballroom

Thursday: The value of Comprehensive Genomic Profiling, including immunotherapy & liquid biopsy options, Allison Welsh, PhD. Moderators: Kevin Kim, MD/Mohammed Kashani-Sabet, MD, sponsored by **Foundation Medicine, Inc.**

Friday: Clinical Considerations for Treatment in Advanced Melanoma.
Speaker: Jonathan Zager, MD, sponsored by **Amgen**

Saturday: Novel Technology for SLN Imaging, Non-CME Breakfast Session. Co-Chairs: John V. Frangioni, MD, PhD & Alessandro Testori, MD, sponsored by **Curadel, LLC**

Industry Sponsored Non-CME Lunch Sessions Thursday, Friday & Saturday

Thursday – Gold Rush Ballroom, 12:45 – 13:45: Prognostic Biomarkers in Malignant Melanoma. Moderator: Jonathan Zager, MD, sponsored by **Castle Biosciences, Inc.**

Friday – Crystal Ballroom, 12:30 – 13:30: Dual Immune Checkpoint Inhibition for the First Line Treatment of BRAF Wild Type and BRAF Mutant Metastatic Melanoma. Speaker: Steven J. O'Day, MD, sponsored by **Bristol-Myers Squibb**

Saturday – Gold Rush Ballroom, 12:30 – 13:30:
For **Full Symposium registrants:** Technological Evolution of Radiotherapy & Total Cancer Care Towards Value-Based Healthcare. Session Chair/Speaker: Baldassare Stea, MD, PhD, sponsored by **Varian Medical Systems**

Saturday – Oregon Ballroom, 12:30 – 13:30:
For **Patient Summit-Lymphedema Session registrants:** Update on Lymphedema: Current Clinical Trials at Stanford. Speaker: Stanley G. Rockson, MD, sponsored by **Eiger BioPharmaceuticals, Inc.**

WiFi

Complimentary WiFi is available in the guest rooms, lobby and restaurant for hotel guests.

Symposium Manager

Joan Oefner

Rhema Association Management

Email: joefner@cancermetastasis.org

Final Program

Thursday, April 20, 2017

07:30 - 08:30	Session 1: The value of Comprehensive Genomic Profiling, including Immunotherapy & Liquid Biopsy Options, Sponsored by Foundation Medicine, Inc. Gold Rush Ballroom - Chair/s: Kevin Kim, Mohammed Kashani-Sabet – Non-CME
07:30	01-01 The value of Comprehensive Genomic Profiling, including immunotherapy & liquid biopsy options, Allison Welsh
08:35 - 08:45	Session 2: Opening Remarks – Mayor’s Welcome & Dr. Warren Browner, CEO of the California Pacific Medical Center Emerald Ballroom - Chair/s: Stanley P.L. Leong, Jonathan S. Zager
08:35	02-01 Welcome to Cancer Metastasis through the Lymphovascular System: Biology & Treatment, 7th International Symposium, Warren Browner
08:45 - 09:15	Session 3: Clinical Utility of Sentinel Lymph Nodes, Charles M. Balch, MD, Donald Morton Surgical Oncology Memorial Lecture - KEYNOTE Emerald Ballroom - Chair/s: Stanley P.L. Leong
08:45	03-01 Clinical utility of sentinel lymph nodes, Charles Balch
09:15 - 10:25	Session 4: Tumor Microenvironment in Cancer Initiation and Progression Emerald Ballroom - Chair/s: Athena Aktipis, Stanley P.L. Leong
09:15	04-01 Interactions between cancer and stromal cells: selection of the fittest clones to metastasize, Stanley Leong
09:35	04-02 Social evolution and natural selection in cancer progression, Athena Aktipis
09:55	04-03 Classifying the evolution and ecology of tumors, Carlo Maley
10:35 - 10:50	Coffee Break - Visit the Exhibit & Posters – Networking – Gold Rush Ballroom
11:00 - 12:35	Session 5: Tumor Growth and Metastatic Spread Emerald Ballroom - Chair/s: Donald M. McDonald, Marlys Hearst Witte
11:00	05-01 Cancer metastasis and the lymphatic system, Marlys Witte
11:20	05-02 Oncolytic virus mpJX-594 induces widespread cell death in pancreatic neuroendocrine tumors, Donald McDonald
11:40	05-03 Angiogenesis & lymphangiogenesis in cancer metastasis: concordant or independent, Michael Dellinger

12:00	05-04 Molecular biomarkers for cancer: proteins, genes and exosomes , <u>Mohammed Kashani-Sabet</u>
12:45 - 13:45	Session 6: Prognostic Biomarkers in Malignant Melanoma, Sponsored by Castle Biosciences Gold Rush Ballroom - Chair/s: Jonathan S. Zager - Non-CME
12:45	06-01 Tissue Based Biomarkers of Prognosis in Malignant Melanoma , <u>Jane Messina</u>
13:05	06-02 Surgical management implications of prognostic biomarkers in melanoma , <u>Eddy Hsueh</u>
13:25	06-03 Prognostic Biomarkers in the Era of Melanoma Immunotherapy , <u>Jason Luke</u>
13:50 - 15:10	Session 7: Biomarkers for Cancer Metastasis Emerald Ballroom - Chair/s: Dave S.B. Hoon, Isaac P. Witz
13:50	07-01 Genomics for cancer metastasis , <u>Marcus Bosenberg</u>
14:10	07-02 Utility of Circulating Cell-Free DNA In Assessing Cutaneous Melanoma Progression , <u>Dave Hoon</u>
14:30	07-03 Tumor associated and microenvironmental drivers of melanoma brain metastasis , <u>Isaac P. Witz</u>
15:20 - 15:35	Coffee Break - Visit the Exhibit & Posters – Networking – Gold Rush Ballroom
15:45 - 16:15	Session 8: Super Resolution Microscopy to study Molecules within a Cell, Nobel Laureate W.E. Moerner, PhD - KEYNOTE Emerald Ballroom - Chair/s: Stanley P.L. Leong
15:45	08-01 Super-resolution microscopy to study molecules within a cell , <u>William Moerner</u>
16:15 - 17:50	Session 9: Sentinel Lymph Node: Incubator or Marker for Cancer Metastasis? Emerald Ballroom - Chair/s: Dale Han, Douglas S. Reintgen
16:15	09-01 Sentinel lymph nodes represent an incubator for metastasis , <u>Mark Faries</u>
16:35	09-02 Sentinel lymph nodes represent a marker for metastasis , <u>Dale Han</u>
16:55	09-03 Nodal staging, survival and the need for CLND with the SLN procedure , <u>Douglas Reintgen</u>
17:15	09-04 Role of Sentinel Lymph Node Staging in Melanoma Clinical Trials , <u>Corrado Caracò</u>

17:50 - 19:30	Session 10: Poster Session, Poster Reception, Visit the Exhibits, Networking Gold Rush Ballroom - Chair/s: Dale Han, Richard White - Non-CME
	10-01 Substance p (sp) increases early onset adhesion of leukaemia (Jurkat) and oral squamous cell carcinoma cell lines (OSCC) to endothelial cells (EC) via adhesion molecules: implication for metastasis <u>Moustafa Elhousiny</u> , anura Ariyawardana, Kate Miller, Alan Nimmo
	10-02 Beyond Breslow thickness: Do other clinicopathologic factors predict for sentinel node metastasis in patients with melanoma? <u>Timothy Murtha</u> , Gang Han, Daniel Thomas, Dale Han
	10-03 Withdrawn
	10-04 Identification of Semaphorin 7a as a driver of lymphovascular dissemination in breast cancer patients <u>Traci Lyons</u>
	10-05 Ablation of Phospholipase D1 & D2 Suppresses Pulmonary Metastasis in MMTV-PyMT Driven Breast Cancer <u>Eric Roth</u> , Julie-Ann Cavallo, Michael Frohman
	10-06 Novel mechanisms of APE/Ref-1 in metastasis and potential as prognostic biomarker , <u>SUN YANG</u>
	10-07 The effect of human skin lymph on tumor cell proliferation <u>Marzanna Zaleska</u> , Waldemar Olszewski
	10-08 New experimental tumor vaccine- immunization with NaCl mummified CC531 cells evokes host reaction against live tumor cells , <u>Waldemar Olszewski</u> , Marzanna Zaleska
	10-09 Minimally Invasive Groin Dissection: Clinical Series comparing Video Endoscopic and Robotic Inguinal Lymphadenectomy in Melanoma , <u>Jiashou Xu</u> , Ajay Upadhyay, Steven Stanten, Giovanni Begossi
	10-10 Guided Lymphangiogenesis for the Treatment of Lymphedema. Pilot Study Results , <u>Michael Pauksho</u>
	10-11 High-resolution 3D fluorescence microscopy of immune checkpoints in melanoma tissue sections , <u>Colin Comerici</u> , Mehdi Nosrati, Mohammed Kashani-Sabet, Stanley Leong, W. E. Moerner
	10-12 Is every thick melanoma equal? <u>Meng-Ting Peng</u> , John Wen-Cheng Chang
	10-13 Number of Removed Sentinel Lymph Nodes Does Not Differ between Tc-99m Sulfur Colloid and Tc-99m Tilmanocept in Breast Cancer , <u>Jonathan Unkart</u> , James Proudfoot, Anne Wallace
	10-14 Endocardial metastasis from hepatocellular carcinoma to the right atrium , <u>Mayank Patel</u> , Natasha Rai, Kim Lam, Vikas Mehta, Malek Massad, Pam Khosla

	10-15 Optimizing physiological and mechanical function of the local lymphatic system promotes fluid homeostasis and mitigates protracted changes to the solid phase in secondary lymphedema Julia Osborne
	10-16 Interaction of macrophages with apoptotic cancer cells inhibits EMT, migration and invasion of cancer epithelial cells Jihee Kang , Yong-Bae Kim, Young-Ho Ahn, Jin-Hwa Lee
	10-17 Treatment of regional and distant metastasis of women breast cancer with lymphotropic subcutaneous injections of CMF as a first-line chemotherapy Nadezhda Gariaeva , Igor Zavgorodnii, Konstantin Garyaev
	10-18 Modelization of the procoagulant properties of cancer cells and the alterations of the effectiveness of the anticoagulant agents. Aur�lie Rousseau , Patrick Van Dreden
	10-19 Withdrawn
Friday, April 21, 2017	
07:30 - 08:30	Session 11: Clinical Considerations for Treatment in Advanced Melanoma, Sponsored by Amgen Gold Rush Ballroom - Non-CME
07:30	11-01 Clinical Considerations for Treatment in Advanced Melanoma , Jonathan Zager
08:35 - 10:35	Session 12: Henry Ford Health System Breast Cancer Metastasis to the Regional Lymph Nodes and Beyond - Mini-Symposium Emerald Ballroom - Chair/s: S. David Nathanson, Barbara Pockaj
08:35	12-01 Introduction , S. David Nathanson
08:45	12-02 Biology and treatment of metastatic breast cancer based on positive clinical trials , Hope Rugo
09:05	12-03 Lymph Nodes as Distribution Hubs for Systemic Metastasis of Breast Cancer , Markus Brown
09:25	12-04 What have we learned from the breast cancer sentinel node clinical trials? , David Krag
09:45	12-05 Targeted Axillary Dissection (TAD) for Breast Cancer: Less is More , Henry Kuerer
10:05	12-06 Molecular heterogeneity of breast cancer in different racial groups , Lisa Newman
10:35 - 11:05	Coffee Break - Visit the Exhibit & Posters – Networking – Gold Rush Ballroom

11:10 - 12:20	Session 13: Novel Frontiers in Detecting Cancer Metastasis Emerald Ballroom - Chair/s: Stanley P.L. Leong , Mohammed Kashani-Sabet
11:10	13-01 Navigating the immunological microenvironment, <i>in situ</i> , to uncover the hidden clues of cancer immunology, Edward Stack
11:30	13-02 Cancer Neoantigens: Targets for Immunotherapy, Mojca Skoberne
11:50	13-03 Novel platform for miRNA profiling directly from biofluids using FirePlex® Technology, Daniel Pregibon
12:30 - 13:30	Session 14: Checkpoint Inhibitors for Cancer Metastasis, Sponsored by Bristol-Myers Squibb Crystal Ballroom - Non-CME
12:30	14-01 Dual Immune Checkpoint Inhibition for the First Line Treatment of BRAF Wild Type and BRAF Mutant Metastatic Melanoma. Steven O'Day
13:35 - 15:05	Session 15: Advances in Cancer Treatment Emerald Ballroom - Chair/s: Kevin Kim, John K. Chan
13:35	15-01 Treatment of intransit metastatic melanoma, Jonathan Zager
13:55	15-02 Latest development in targeted therapy in solid tumors, Kevin Kim
14:15	15-03 Extended survival time correlates to immunological changes in circulating lymphocytes of patients with pancreatic cancer after NK cell-enriched cell therapy: A retrospective study. Akihiro Shimosaka , Junichi Masuyama
14:35	15-04 Novel treatment for metastatic gynecological cancer based on new biology, John Chan
15:05 - 15:35	Session 16: Molecular Imaging of Cancer Metastasis, Sanjiv Sam Gambhir, MD, PhD – KEYNOTE Emerald Ballroom - Chair/s: Stanley P.L. Leong
15:05	16-01 Molecular imaging of cancer metastasis, Sanjiv Gambhir
15:45 - 16:00	Coffee Break - Visit the Exhibit & Posters – Networking – Gold Rush Ballroom
16:10 - 17:20	Session 17: Translating the Promise of Academic Research into Reality: Industry - Regulatory - Academic -Foundation Town Hall Meeting Emerald Ballroom - Chair/s: John V. Frangioni - Non-CME
16:10	17-01 Industry Perspective: David R. Parkinson, MD, President & CEO, Essa Pharmaceuticals, Inc., Vancouver, Canada, David Parkinson
16:20	17-02 Academic Perspective: Sanjiv (Sam) Gambhir, MD, PhD, Stanford University, Stanford, USA Sanjiv Gambhir
16:30	17-03 Technology Licensing Perspective: Mona Wan, MS, MBA, Office of Technology Licensing, Stanford University, Stanford, USA, Mona Wan

16:40	17-04 Regulatory Perspective: Libero (Louis) Marzella, MD, PhD, Director of the Division of Medical Imaging Products (DMIP) at the Food and Drug Administration (FDA), Louis Marzella
17:20 - 17:50	Session 18: RealTime Personalized Molecular Medicine For Monitoring CTC In Melanoma Patients Receiving CheckPoint Inhibitors, Sponsored by Clearbridge BioMedics Emerald Ballroom - Chair/s: Dave S.B. Hoon - Non-CME
17:20	18-01 RealTime Personalized Molecular Medicine For Monitoring CTC In Melanoma Patients Receiving CheckPoint Inhibitors, Dave Hoon
17:50 - 18:20	Session 19: Immuno-Oncology: A CRO's Perspective, Jai Balkissoon, MD, - KEYNOTE Emerald Ballroom – Chair/s: Stanley P.L. Leong - Non-CME
17:50	19-01 Immuno-Oncology: A CRO's perspective, Jai Balkissoon
18:20 - 18:40	Session 20: The Laboratory Testing to Complement Immuno-Oncology Therapy for Melanoma, Thomas Moss, MD Emerald Ballroom - Chair/s: Stanley P.L. Leong - Non-CME - Non-CME
18:20	20-01 The Laboratory Testing to Complement Immuno-Oncology Therapy for Melanoma, Thomas Moss
18:40 - 19:15	Session 21: Rapid Fire Abstract Session: Tumor Microenvironment and Cancer Progression Oregon Ballroom - Chair/s: Barbara Pockaj, Isaac P. Witz - Non-CME
18:40	21-01 TGF-β1-induced EMT promotes dendritic cell properties and lymphatic dissemination of cancer cells, Jonas Fuxe, Mei-Fong Pang, Nikolina Giotopoulou, Mikael Karlsson, Anna-Maria Georgoudaki
18:45	21-02 miR-93 regulates epithelial-to-mesenchymal transition process in metastatic colorectal cancer by targeting EphA4, Sheng Gao, Bo Jiang, Haiyi Liu, Liming Wu, Zhe Yang, Junpeng Shen, Shu-Sen Zheng, Wenqi Bai
18:50	21-03 Human lymphatic extracellular vesicles: early modulators of regional lymph node metastasis, Rachel Maus, James Jakub MD, Trace Christensen, Wendy Nevala MS, Svetomir Markovic MD, PhD
18:55	21-04 The prognostic significance of molecular sentinel lymph node staging by one-step nucleic acid amplification (OSNA) in patients with colon cancer - A multicenter cohort study Benjamin Weixler , Ragna van der Linden, Dimitri Rapits, Leonora Boogerd, Alexander Vahrmeijer, Cornelis van de Velde, Koop Bosscha, Markus Zuber
19:00	21-05 Tertiary lymphoid structures: a unique intratumoral immune response in liposarcoma with a potential role in the development of high grade disease, William Tseng, Susan Groshen, Sophia Hernandez, Eric Jung, Shefali Chopra
19:05	21-06 CYR61 – NOTCH INTERACTION DURING EPITHELIAL-TO-MESENCHYMAL-TRANSITION, MIGRATION AND INVASION OF BREAST CANCER CELLS Mustafa Ilhan, Cansu Kucukkose, Ozden Yalcin-Ozuysal

19:10	21-07 Exploring the oncolytic potential of tanapoxvirus for melanoma virotherapy , <u>Tiantian Zhang</u>
18:40 - 19:20	Session 22: Rapid Fire Abstract Session: Cancer Metastasis & Treatment Emerald Ballroom - Chair/s: Mark B. Faries, Richard L. White - Non-CME
18:40	22-01 A genome-wide query of somatic copy number alterations to predict lymph node metastases and survival in patients with muscle invasive bladder cancer , <u>Karla Lindquist</u> , Thomas Sanford, Terence Friedlander, Pamela Paris, Sima Porten
18:45	22-02 Recurrence risk in patients with melanoma of the external ear: An investigation of surgical approach and sentinel lymph node status , <u>Amanda Truong</u> , John Hyingstrom, Robert Andtbacka, R. Dirk Noyes, Melissa Wright, John Snyder, Kenneth Grossmann, Douglas Grossman, Tawnya Bowles
18:50	22-03 PET/CT at the time of diagnosis in patients with melanoma metastatic to sentinel lymph nodes rarely identifies systemic disease. <u>Edward Miranda</u> , Beata Jaron, Mohammed Kashani-Sabet, Stanley Leong
18:55	22-04 Conditional survival in melanoma in the sentinel lymph node era: Meaningful prognostic information for patients and physicians <u>Lauren Kerivan</u> , Michael Reintgen, Steve Shivers, Eric Reintgen, Douglas Reintgen
19:00	22-05 Survival of melanoma patients is significantly compromised when the non-sentinel lymph node compartment is found to contain micrometastasis following completion lymph node dissection for patients with a positive sentinel lymph node biopsy. <u>Andrei Rios-Cantu</u> , Ying Lu, Servando Cardona-Huerta, Victor Melendez-Elizondo, Michael Chen, Alejandra Gutierrez-Rangel, Stanley Leong
19:05	22-06 Overall survival and outcome of melanoma patients with brain metastasis after the FDA approval of checkpoint inhibitors and BRAF and MEK inhibitors , <u>Elham Vosoughi</u> , Jee Min Lee, James R. Miller, Mehdi Nosrati, David Minor, Roy Abendroth, John W. Lee, Brian T. Andrews, Lewis Z. Leng, Max Wu, Mohammed Kashani-Sabet, Kevin B. Kim
19:10	22-07 Utility and feasibility of sentinel lymph node inking for accurate localization of nodal metastases , <u>Alexandra Gangi</u> , Jeffrey Francis, Jane Messina, John Hassani, Caitlin Porubsky, Jiannong Li, Jose Pimiento, Ann Chen, Vernon Sondak, Amod Sarnaik, Jonathan Zager
19:15	22-08 The Performance of Tc-99m Tilmanocept Allows for Flexible Scheduling and Use in a Variety of Clinical Settings for Sentinel Lymph Node Biopsy in Breast Cancer , <u>Jonathan Unkart</u> , Anne Wallace
19:20	22-09 Sentinella portable gamma camera detects additional sentinel lymph nodes in melanoma patients <u>Stanley Leong</u> , Max Wu, Ying Lu, Donald Torre, Anna von Bakonyi, Ari Wight, James Newsom, William Luckett, Mohammed Kashani-Sabet

18:40 - 19:15	Session 23: Late Breaking Rapid Fire Oral Abstract Presentations Gold Rush Ballroom - Chair/s: Jonathan S. Zager, Dale Han - Non-CME	
18:40	23-01 Thromboembolic Risk in Patients with Newly Diagnosed Multiple Myeloma Is Associated with Biomarkers of Hypercoagulability Fotiou Despina, Flora Zagouri, <u>Aurélie Rousseau</u> , Patrick Vandreden, Evangelos Terpos, Meletios Dimopoulos, Grigorios Gerotziakas	
18:45	23-02 Development in ambulatory patients with lung adenocarcinoma on chemotherapy of A clinicobiological Risk Assessment Model for VTE. The ROADMAP study. Grigorios Gerotziakas, <u>Aurélie Rousseau</u> , Ilias Evmorfiadis, Patrick Vandreden, Paraskevi Boura, Andriani Charpidou, Ioannis Giozos, Konstantinos Syrigos	
18:50	23-03 The Futility of Brain MRI for Melanoma Patients with a Positive Sentinel Lymph Node Biopsy. <u>Edward Miranda</u> , Beata Jaron, Stanley Leong	
18:55	23-04 Use of SLN biopsy for DCIS in patients undergoing mastectomy: who is at risk for upstaging? <u>Ahmed Mohsen</u> , Heidi Kosiorek, Bhavika Patel, Matthew Covington, Anamika Basu, Richard Gray, Nabil Wasif, Chee-Chee Stucky, Ann McCullough, Idris Tolgay Ocal, Barbara Pockaj	
19:00	23-05 Melanoma lymphatic drainage patterns identified by tilmanocept <u>Daniel M Balkin</u> , Frederick Wang, Emily M Balkin, Cristina O'donoghue, Caitlin Porubsky, Jaime L Montilla-Soler, Vernon K Sondak, Mohammed Kashani-Sabet, Jonathan S Zager, Stanley P L Leong	
19:05	23-06 Recurrences in patients with a primary melanoma having a negative sentinel lymph node biopsy, <u>KM Mahuron</u> , S Cardona-Huerta, SR Thummala, JE Cleaver, M Kashani-Sabet, SP Leong	
	23-07 Withdrawn	
19:10	23-08 Long term outcomes of treating stage-II lymphedema patients with free lymph node transfer (LNT), <u>Dimitrios Dionyssiou</u> , Efterpi Demiri, Antonios Tsimponis, Olga Christina Goula, Georgia Tatsidou, Georgios Arsos	
19:30 - 22:30	Gala Dinner in the Crystal Ballroom	Crystal Ballroom

Saturday, April 22, 2017

07:30 - 08:30	Session 24: Novel Technology for Sentinel Lymph Node Imaging, Sponsored by Curadel, LLC Gold Rush Ballroom - Chair/s: John V. Frangioni and Alessandro Testori - Non-CME	
07:30	24-01 Strategies for Successful SLN Mapping in the Clinic using NIR Fluorescence, <u>John Frangioni</u>	
07:50	24-02 Lymphatic imaging with light and sound, <u>Russell Witte</u>	

08:10	24-03 Enhanced Intraoperative Detection of Sentinel Lymph Nodes , Alessandro Testori , Alessandro Testori
08:30 - 10:00	Session 25: PhysioTouch negative pressure treatment supports lymphedema and cancer survivor rehabilitation workshop, Sponsored by PhysioTouch Gold Rush Ballroom - Chair/s: Mike J. Bernas, Saskia R.J. Thiadens - Non-CME
08:30	25-01 PhysioTouch negative pressure treatment supports lymphedema and cancer survivor rehabilitation , Kalle Palomäki
08:35 - 10:00	Session 26: Advances in Treatment for Gastrointestinal & Genitourinary Cancer based on Sentinel Lymph Node Biology Emerald Ballroom - Chair/s: Sukamal Saha, Timothy G. Wilson
08:35	26-01 Pathologic Evaluation of Sentinel Lymph Nodes in Gastrointestinal Cancers , David Wiese
08:50	26-02 Personalized treatment of upper gastrointestinal cancer based on SLN status , Hiroya Takeuchi
09:10	26-03 Selection for adjuvant chemotherapy for lower gastrointestinal cancers by SLN status , Sukamal Saha
09:30	26-04 SLN detection for prostate and bladder cancer using robot-assisted surgery , Timothy Wilson
10:10 - 10:25	Coffee Break - Visit the Exhibit & Posters – Networking – Gold Rush Ballroom
10:35 - 12:20	Session 27: PATIENT SUMMIT - Lymphedema Following Cancer Therapy: Treatment Controversies Emerald Ballroom- Chair/s: Mike J. Bernas, Saskia R.J. Thiadens
10:35	27-01 Introduction of Lymphedema , Saskia Thiadens
10:45	27-02 Cancer-related lymphedema and incidence , Paula Stewart
11:00	27-03 Imaging techniques for the lymphatic system , Michael Bernas
11:15	27-04 Genetics of breast cancer related lymphedema , Betty Smoot
11:30	27-05 Treatment and advocacy of cancer related LE , Saskia Thiadens
11:45	27-06 Surgical treatments for lymphedema , Jay Granzow
12:30 - 13:30	Session 28: Update on Lymphedema: Current Clinical Trials at Stanford, Sponsored by EigerBioPharmaceuticals Oregon Ballroom - Chair/s: Mike J. Bernas, Saskia R.J. Thiadens - Non-CME
12:20	28-01 Update on Lymphedema: Current Clinical Trials at Stanford , Stanley Rockson

12:30 - 13:30	Session 29: Technological Evolution of Radiotherapy & Total Cancer Care Towards Value-Based Healthcare, Sponsored by Varian Medical Systems Gold Rush Ballroom – Chair & Speaker: Baldassarre Stea - Non-CME
12:30	29-01 Technology Evolution for Value-Based Healthcare , <u>Baldassarre Stea</u>
13:35 - 15:05	Session 30: Radiotherapy of Cancer Emerald Ballroom - Chair/s: Baldassarre Stea, Roy E. Abendroth
13:35	30-01 New Frontiers in Cancer Therapy: Combining Radiotherapy with Immunotherapy to Treat Cancer , <u>Baldassarre Stea</u>
13:55	30-02 Radiotherapy of cancer: adjuvant approach , <u>Roy Abendroth</u>
14:15	30-03 Radiotherapy for oligometastatic cancer , <u>Charles Hsu</u>
14:35	30-04 New Frontiers in Treatment of Lung Cancer , <u>Charles Hsu</u>
15:05 - 16:05	Session 31: Trainee & Young Investigator Awardee Oral Presentations Emerald Ballroom - Chair/s: Richard L. White, Jr., Barbara Pockaj - Non-CME
15:05	1 st Place Trainee: 31-01 Intravital imaging of lymph node metastasis reveals its ability to contribute to distant metastasis <u>Ethel Pereira</u> , Dmitry Kedrin, Giorgio Seano, Olivia Gautier, Dennis Jones, Eelco Meijer, Shan-Min Chin, Shuji Kitahara, Jonathan Chang, Elizabeth Beech, Han-Sin Jeong, Michael Carroll, Alphonse Taghian, Timothy Padera
15:15	2 nd Place Trainee: 31-02 Nanoparticle to treat established lymph node metastasis and primary tumor , <u>Isaac Adjei</u> , Vinod Labhasetwar
15:25	3 rd Place Trainee: 31-03 Cutaneous Immune Factors and Regression of In-Transit/Lymphatic Melanoma After Intralesional Injection of Bacille Calmette-Guerin , <u>Maris Jones</u> , Junbao Yang, Leland Foshag, Peter Sieling, Delphine Lee, Mark Faries
15:35	1 st Place Young Investigator: 31-04 Epigenetic alterations of spliceosome factors are associated with organ-specific melanoma metastasis <u>Diego Marzese</u> , Nellie Nelson, Ling Takeshima, Sandy Hsu, Dave Hoon
15:45	2 nd Place Young Investigator: 31-05 Innovations in Lymphatic Microsurgery - MLVA and FLA-LVSP: The Complete Treatment Package , <u>Corrado Campisi</u>
15:55	3 rd Place Young Investigator: 31-06 Cryofluorescence Tomography for Single-Cell and Micron-Level of Analysis of Cancer Metastasis and the Lymphovascular System – Bridging the Microscopic/Mesosopic Divide <u>Robert Holt</u> , Mark Bordo, Sanjana Pannem, Jacob Hesterman, John Frangioni, Jack Hoppin, Ajay Verma
16:05 - 16:15	Closing Remarks, Stanley, P.L. Leong, MD Emerald Ballroom

Invited Faculty

- Stanley P.L. Leong, MD, California Pacific Medical Center, San Francisco, USA, Symposium Co-Chair
- Jonathan S. Zager, MD, Moffitt Cancer Center, Tampa, USA, Symposium Co-Chair
- Roy E. Abendroth, MD, California Pacific Medical Center, San Francisco, USA
- Athena Aktipis, PhD, Arizona State University, Tempe, USA
- Charles M. Balch, MD, University of Texas MD Anderson Cancer Center, Houston, USA
- Jai Balkissoon, MD, FACS, PPD, Berkeley, USA
- Michael J. Bernas, MS, University of Arizona, Tucson, USA
- Marcus W. Bosenberg, PhD, Yale School of Medicine, New Haven, USA
- Markus Brown, MS, Institute of Science and Technology Austria, Vienna, Austria
- Corrado Caracò, MD, National Cancer Institute of Naples, Naples, Italy
- John K. Chan, MD, California Pacific Medical Center, San Francisco, USA
- Michael Dellinger, PhD, UT Southwestern Medical Center, Dallas, USA
- Mark B. Faries, MD, John Wayne Cancer Institute, Santa Monica, USA
- John V. Frangioni, MD, PhD, The Curadel Companies, Marlborough, USA
- Sanjiv Sam Gambhir, MD, PhD, Stanford University School of Medicine, Stanford, USA
- Jay Granzow, MD, MPH, FACS, UCLA School of Medicine, Manhattan Beach, USA
- Dale Han, MD, Yale School of Medicine, New Haven, USA
- Dave S. B. Hoon, PhD, John Wayne Cancer Institute, Santa Monica, USA
- Charles C. Hsu, MD, PhD, University of Arizona, Tucson, USA
- Eddy Hsueh, MD, Saint Louis University School of Medicine, St. Louis, USA
- Mohammed Kashani-Sabet, MD, California Pacific Medical Center, San Francisco, USA
- Kevin Kim, MD, California Pacific Medical Center, San Francisco, USA
- Henry M. Kuerer, MD, PhD, University of Texas MD Anderson Cancer Center, Houston, USA
- David Krag, MD, University of Vermont, Burlington, USA
- Jason J. Luke, MD – The University of Chicago Medicine, Chicago, USA
- Libero (Louis) Marzella, MD, PhD, Division of Medical Imaging Products (DMIP), FDA
- Carlo C. Maley, PhD, Arizona State University, Tempe, USA
- Donald M. McDonald, MD, PhD, University of California, San Francisco, USA
- Jane L. Messina, MD, Moffitt Cancer Center, Tampa, USA
- Nobel Laureate W.E. Moerner, PhD, Stanford University, Stanford, USA
- Thomas Moss, MD, The MT Group, Los Angeles, USA
- S. David Nathanson, MD, Henry Ford Health System, Detroit, USA
- Lisa A. Newman, MD, MPH, Henry Ford Health System, Detroit, USA
- Steven J. O'Day, MD, John Wayne Cancer Institute, Santa Monica, USA
- Kalle Palomäki, PhysioTouch, Helsinki, Finland
- David R. Parkinson, MD, Essa Pharmaceuticals, Inc., Vancouver, Canada
- Barbara Pockaj, MD, Mayo Clinic, Phoenix, USA
- Daniel Pregibon, PhD, Abcam, Cambridge, USA
- Douglas S. Reintgen, MD, University of South Florida, Tampa, USA
- Stanley G. Rockson, MD, Stanford University, Stanford, USA
- Mojca Skoberne, Ph.D, Gritstone Oncology, Boston, USA
- Hope S. Rugo, MD, University of California San Francisco, San Francisco, USA
- Sukamal Saha, MD, Easton Hospital, Easton, USA
- Betty Smoot, PT, DPTSc, UCSF, San Francisco, USA
- Edward C. Stack, PhD, PerkinElmer, Hopkinton, USA
- Baldassarre Stea, MD, PhD, University of Arizona, Tucson, USA
- Paula J. B. Stewart, MD, MS, Lakeshore Rehabilitation Hospital, Birmingham, USA
- Hiroya Takeuchi, MD, PhD, Keio University, Tokyo, Japan
- Alessandro Testori, MD, Istituto Europeo di Oncologia, Milano, Italy
- Saskia R.J. Thiadens, RN, Founder National Lymphedema Network, San Francisco, USA
- Mona Wan, MS, MBA, Stanford University, Stanford, USA
- Allison Welsh, PhD, Foundation Medicine Inc., Cambridge, USA
- Richard L. White, Jr, MD, Carolinas HealthCare System, Charlotte, USA
- David Wiese, MD, PhD, McLaren Regional Medical Center, Flint, Michigan, USA
- Timothy G. Wilson, MD, John Wayne Cancer Center, Santa Monica, USA
- Marlys H. Witte, MD, University of Arizona, Tucson, USA
- Russel Witte, PhD, University of Arizona, Tucson, USA
- Isaac P. Witz, PhD, Tel Aviv University, Tel Aviv, Israel
- Jonathan S. Zager, MD, Moffitt Cancer Center, Tampa, USA, Symposium Co-Chair

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Target Audience

This activity is intended for physicians specializing in surgery, oncology, molecular imaging, plastic surgery, radiation oncology, hematology, thoracic medicine with the remainder a mixture of predominately PhD/scientists from both academia and biotechnology as well as a smaller groups of attendees who are in training.

Learning Objectives

Upon completion of this activity, participants will be able to:

- Describe cancer initiation and progression in the tumor microenvironment.
- Distinguish the pathways of metastasis by virtue of the lymphatic versus vascular systems.
- Recognize the utility of SLN biopsy in multiple cancers and that SLN may be the primary gateway to cancer metastasis.
- Discuss the application of immune check point inhibition to treat cancer.
- Describe and integrate new genetic and mutational analysis information as biomarkers for diagnoses, staging and treatment selection for patients with metastatic cancers.
- Describe the potential application of molecular imaging for pinpoint stereotactic radiotherapy.
- Identify secondary lymphedema resulting from cancer treatment and methods to overcome lymphedema.

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