# Cancer Metastasis through the Lymphovascular System: Biology & Treatment

**7th International Symposium – Preliminary Program – www.cancermetastasis.org**

**Thursday, April 20, 2017**

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<th>Time</th>
<th>Event Description</th>
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| 7:30 - 8:30 | **Genomic Profiling of Cancer, Non-CME Breakfast Session**  
Moderators: Kashani-Sabet/Kim, Sponsored by Foundation Medicine, Inc.  
Symposium Co-Chairs, Stanley, P.L. Leong, MD, FACS and Jonathan S. Zager, MD, will give the opening remarks and it is expected that the Mayor of San Francisco and Dr. Warren Browner, CEO of the California Pacific Medical Center will make a formal welcome to the Symposium Participants. |
| 8:35     | Donald Morton Surgical Oncology Memorial Lecture:  
**Clinical Utility of Sentinel Lymph Nodes** (KEYNOTE), Charles M. Balch, MD                                                                                                                                       |
| 9:15 - 10:25 | **Tumor Microenvironment in Cancer Initiation and Progression**  
Co-Chairs: Leong/Aktips  
9:15 Interactions between Cancer and Stromal Cells: Selection of the Fittest Clone to Metastasize, Stanley P.L. Leong, MD  
9:35 Social Evolution and Natural Selection as Applied to Cancer Progression, Athena Aktipis, PhD  
9:55 Understanding Cancer Evolution and Progression by Mathematical Computation, Carlo C. Maley, PhD  
10:15 Q&A Panel Discussion                                                                                                                                   |
| 10:25 - 10:55 | Coffee Break - Visit the Exhibit & e-Posters - Networking                                                                                                                                                    |
| 11:00 - 12:35 | **Tumor Growth and Metastatic Spread**,  
Co-Chairs: McDonald/Witte  
11:00 Cancer Metastasis and the Lymphatic System, Marlys H. Witte, MD  
11:20 Plasticity of Lymphatics in Cancer and Inflammation, Donald M. McDonald, MD, PhD  
11:40 Angiogenesis & Lymphangiogenesis in Cancer Metastasis: Concordant or Independent, Michael Dellinger, PhD  
12:00 Molecular Biomarkers for Cancer, Mohammed Kashani-Sabet, MD  
12:20 Q&A Panel Discussion                                                                                                                                    |
| 12:35 - 13:45 | **Prognostic Biomarkers in Malignant Melanoma, Non-CME Lunch Session**  
Moderator: Jonathan Zager, Sponsored by CastleBioscience  
12:35 Tissue Based Biomarkers of Prognosis in Malignant Melanoma, Jane L. Messina, MD, Moffitt Cancer Center, Tampa, USA  
12:55 Surgical Management Implications of Prognostic Biomarkers in Melanoma, Eric D. Whitman, MD, FACS, Atlantic Melanoma Center, Morristown, USA  
13:15 Prognostic Biomarkers in the Era of Melanoma Immunotherapy, Jason J. Luke, MD – The University of Chicago Medicine, Chicago, USA  
13:35 Q&A Panel Discussion                                                                                                                                     |
| 13:50 - 15:30 | **Biomarkers for Cancer Metastasis**  
Co-Chairs: Hoon/Witz  
13:50 Genomics for Cancer Metastasis, Marcus W. Bosenberg, MD, PhD  
14:10 Utility of Circulating Tumor Cells/DNA to Detect Clinical Metastasis, David S.B. Hoon, PhD  
14:30 Tumor Associated and Microenvironmental Drivers of Melanoma Brain Metastasis, Issac P. Witz, PhD  
14:50 Q&A Panel Discussion                                                                                                                                      |
Thursday, April 20, 2017 continued:

15:10 – 15:40 Coffee Break - Visit the Exhibit & e-Posters - Networking

15:45 **Super Resolution Microscopy to study Cancer and non-Cancer Diseases** (KEYNOTE), Nobel Laureate W.E. Moerner, PhD

16:15 – 17:50 **Sentinel Lymph Node: Incubator or Marker for Cancer Metastasis?**
*Session Chairs: Han/Reintgen*

16:15 *Sentinel Lymph Nodes Represent an Incubator for Metastasis*, Mark B. Faries, MD

16:35 *Sentinel Lymph Nodes Represent a Marker for Metastasis*, Dale Han, MD

16:55 *Nodal Staging, Survival and the Need for CLND with the SLN Procedure*, Douglas S. Reintgen, MD

17:15 *Role of Sentinel Lymph Node Staging in Melanoma Clinical Trials*, Nicola Mozzillo, MD

17:35 Q&A Panel Discussion

17:50 - 19:30 **e-Poster Session, Non-CME, Poster Reception**, Visit the Exhibits, Networking

Friday, April 21, 2017

7:30 - 8:30 **Clinical Considerations for Treatment in Advanced Melanoma Non-CME Breakfast Session**
*Sponsored by Amgen, Speaker: Jonathan Zager, Sponsored by Amgen*

8:35 - 10:35 **Henry Ford Health System Breast Cancer Metastasis to the Regional Lymph Nodes and Beyond - Mini-Symposium, Session Chairs: Nathanson/Pockaj**

8:35 *What Have We Learned from the Breast Cancer Sentinel Node Clinical Trials?*, David Krag, MD

8:55 *Targeted Axillary Dissection for Breast Cancer: Less is More*, Henry M. Kuerer, MD, PhD

9:15 *Molecular Heterogeneity of Breast Cancer in Different Racial Groups*, Lisa A. Newman, MD, MPH

9:35 *Molecular Aspects of Breast Cancer Metastasis*, Funda Meric-Bernstam, MD

9:55 *Biology and Treatment of Metastatic Breast Cancer Based on Positive Clinical Trials*, Hope S. Rugo, MD

10:15 *Lymph Nodes as Distribution Hubs for Systemic Metastasis of Breast Cancer*, Dontscho Kerjaschki, MD

10:35-11:05 Coffee Break - Visit the Exhibit & e-Posters - Networking

**11:10-12:20 Novel Frontiers in Detecting Cancer Metastasis (Non-CME), Session Co-Chairs: Leong/Kashani-Sabet**

11:10 *Navigating the immunological microenvironment, in situ, to uncover the hidden clues of cancer immunity*, Edward C. Stack, PhD, PerkinElmer, Hopkinton, USA

11:30 *MicroRNA, Title TBD*, Danial Pregibo, PhD, Abcam, Cambridge, USA

11:50 *Cancer Neoantigens: Targets for Immunotherapy*, Roman Yelensky, PhD, Gritstone Oncology, Boston, USA

12:10 Q&A Discussion

12:20 - 13:30 Industry Sponsored Lunch Session, **Checkpoint Inhibitors for Cancer Metastasis**, (speakers & sponsor to be determined) Non-CME
Friday, April 21, 2017 continued:

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<tbody>
<tr>
<td>13:35</td>
<td>Advances in Cancer Treatment, Session Chairs, Kim/Chan</td>
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<td>13:35</td>
<td>Treatment of In-transit Metastatic Melanoma, Jonathan S. Zager, MD</td>
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<td>14:00</td>
<td>Latest development in Targeted therapy in solid cancer, Kevin Kim, MD</td>
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<td>14:25</td>
<td>Novel treatment for metastatic gynecological cancer based on new biology, John K. Chan, MD</td>
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<tr>
<td>14:50</td>
<td>Q&amp;A Panel Discussion</td>
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<tr>
<td>15:05</td>
<td>Molecular Imaging of Cancer Metastasis (KEYNOTE), Sanjiv Sam Gambhir, MD, PhD</td>
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<tr>
<td>15:35</td>
<td>Coffee Break - Visit the Exhibits &amp; e-Posters - Networking</td>
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16:10 - 17:20 Translating the Promise of Academic Research into Reality: Industry - Regulatory - Academic - Foundation Town Hall Meeting, Moderator: John V. Frangioni, MD, PhD, CEO of the Curadel Companies, Professor Emeritus, Harvard Medical School, Non-CME

What is being done to bridge the divide between research and the clinical practice of medicine? How can the findings of research conducted in academic medical centers become more accessible to physicians in their daily practice?

Attendees will participate in an open discussion with panel members from the federal government, industry, academic institutions and patient advocacy organizations regarding the challenges to participating in clinical research as well as successfully translating study results into clinical practice.

**Confirmed Panelists:** Libero Marzella, MD, FDA, CDER (Regulatory); David R. Parkinson, MD, Essa Pharmaceuticals, Inc. (Industry); Sanjiv (Sam) Gambhir, MD, PhD, Stanford University (Academic); Mona Wan, MS, MBA, Office of Technology Licensing, Stanford University, (Technology Licensing)

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<td>17:20</td>
<td>Circulating Tumor Cell topic TBD, Speaker: Dave S. B. Hoon, PhD, John Wayne Cancer Institute, Santa Monica, USA.</td>
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<td>This Non-CME session is sponsored by: Clearbridge BioMedics</td>
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17:50 - 18:20 Immuno-Oncology: A CRO’s Perspective (KEYNOTE), Jai Balkissoon, MD, FACS, Non-CME

18:20 - 18:40 The Laboratory Testing to Complement Immuno-Oncology Therapy for Melanoma, Thomas Moss, MD, Non-CME, sponsored by MT Group


18:40 - 19:15 Parallel Rapid Fire Oral Abstract Presentations - Tumor Microenvironment and Cancer Progression Session Non-CME EMERALD BALLROOM

18:40 - 19:15 Parallel Rapid Fire Oral Abstract Presentations - Cancer Metastasis & Treatment Session Non-CME GOLD RUSH BALLROOM

19:30 - 22:30 GALA DINNER IN CHINA TOWN Far East Café, 631 Grant Ave, San Francisco, Tel. +1 415-982-3245
Saturday, April 22, 2017

7:30 – 8:30 Novel Technology for Sentinel Lymph Node Imaging, Non-CME Breakfast Session, Session Co-Chairs: John V. Frangioni, MD, PhD & Alessandro Testori, MD, Sponsored by Curadel, LLC, (speakers & additional sponsors to be determined)

8:30 – 10:00 PATIENT SUMMIT/LYMPHEDEMA SESSION REGISTRATION – HANDS-ON LE THERAPY WORKSHOPS, COFFEE BREAK, TIME FOR VISITING THE LYMPHEDEMA COMPANY EXHIBITORS & NETWORKING Pacific Ballroom

8:35 – 10:00 Advances in Treatment for Gastrointestinal & Genitourinary Cancer based on Sentinel Lymph Node Biology, Session Co-Chairs: Saha / Wilson

8:35 Pathological evaluation of upper & lower gastrointestinal cancer SLN, David Wiese, MD, PhD, McLaren Medical Center, Flint, Michigan, USA

8:50 Personalized treatment of upper gastrointestinal cancer based on SLN status, Hiroya Takeuchi, Keio University, Tokyo, Japan

9:10 Selection for adjuvant chemotherapy for lower gastrointestinal cancers by SLN status, Sukamal Saha, MD, Easton Hospital, Easton, USA

9:30 Treatment for prostate and bladder cancer based on SLN detection using robot-assisted surgery, Timothy G. Wilson, MD, John Wayne Cancer Center, Santa Monica, USA

9:50 Q&A Panel Discussion

10:00-10:30 Coffee Break - Visit the Exhibits & e-Posters – Networking

10:35-12:20 PATIENT SUMMIT - Lymphedema Following Cancer Therapy: Treatment Controversies, Co-Chairs: Thiadens/ Bernas

10:35 Introduction to lymphedema, Saskia R.J. Thiadens, RN

10:45 Cancer-related lymphedema and incidence, Paula J. B. Stewart, MD, MS

11:00 Imaging techniques for the lymphatic system, Michael Bernas, MS

11:15 Genetics of cancer-related lymphedema, Betty Smoot, PT, DPTSc

11:30 Treatment and advocacy of cancer-related LE, Saskia R.J. Thiadens, RN

11:45 Surgical treatments for lymphedema, Jay Granzow, MD, MPH, FACS

12:05 Q&A Panel Discussion

12:20-13:30 Industry Sponsored Lunch Session for Patient Summit/Lymphedema Following Cancer Therapy, Speakers & Sponsor(s) TBD

12:20-13:30 Technology Evolution for Value-Based Healthcare Non-CME Lunch Session Sponsored by Varian Medical Systems, Session Chair: Baldassare Stea, MD, PhD, Speakers TBD

13:35-15:05 Radiotherapy of Cancer

Session Co-Chairs: Abendroth/Stea

13:35 New Frontiers in Cancer Therapy: Combining Radiotherapy with Immunotherapy to Treat Cancer, Baldassare Stea, MD, PhD

13:55 Radiotherapy of Cancer: Adjuvant Approach, Roy E. Abendroth, MD

14:15 Radiotherapy for Oligometastatic Cancer, Charles C. Hsu, MD, PhD

14:35 New Frontiers in Treatment of Lung Cancer, Charles C. Hsu, MD, PhD

14:55 Q&A Panel Discussion
15:05 - 16:05  **Trainee & Young Investigator Awardee Oral Abstract Presentations**

15:05  
1st Place Trainee: *Intravital imaging of lymph node metastasis reveals its ability to contribute to distant metastasis*, Pereira, Ethel, et al, [Presenter], (Edwin L. Steele Laboratories, Department of Radiation Oncology, MGH Cancer Center, Massachusetts General Hospital and Harvard Medical School, Boston, United States)

15:15  
2nd Place Trainee: *Nanoparticle to treat established lymph node metastasis and primary tumor*, Adjei, Isaac, et al, [Presenter], (Department of Biomedical Engineering, University of Florida, Gainesville, United States | Department of Biomedical Engineering, Lerner Research Institute, Cleveland Clinic, Cleveland, United States)

15:25  
3rd Place Trainee: *Cutaneous Immune Factors and Regression of In-Transit/Lymphatic Melanoma After Intraleisonal Injection of Bacille Calmette-Guerin*, Jones, Maris, et al, [Presenter], (Division of Surgical Oncology, John Wayne Cancer Institute, Providence Saint John’s Health Center, Santa Monica, CA)

15:35  
1st Place YI: *Epigenetic alterations of spliceosome factors are associated with organ-specific melanoma metastasis*, Marzese, Diego, et al, [Presenter], (Department of Translational Molecular Medicine, John Wayne Cancer Institute at Providence Saint John’s Health Center, Santa Monica, United States)

15:45  
2nd Place YI: *Innovations in Lymphatic Microsurgery – MLVA and FLA-LVSP: The Complete Treatment Package*, Campisi, Corrado, et al, [Presenter], (Department of Plastic, Reconstructive & Aesthetic Surgery, Unit for Lymphatic Microsurgery, Salus Hospital, GVM Care & Research, Reggio Emilia, Italy)

15:55  
3rd Place YI: *Cryofluorescence Tomography for Single-Cell and Micron-Level of Analysis of Cancer Metastasis and the Lymphovascular System – Bridging the Microscopic/Mesoscopic Divide*, Holt, Robert, et al, [Presenter], (invICRO, LLC, Boston, United States)

16:05  
**Closing Remarks**, Stanley Leong: A summary of the status of and future perspectives on the study and management of cancer metastasis as presented during the Congress, address any unanswered questions, and pose others for future consideration.

16:15  
Adjourn
Confirmed Faculty as of November 30, 2016

- 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, Tuscon, USA
- Marcus W. Bosenberg, PhD, Yale School of Medicine, New Haven, USA
- 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, Tuscon, USA
- Mohammed Kashani-Sabet, MD, California Pacific Medical Center, San Francisco, USA
- Donscho Kerjaschki, MD, Medical University of Vienna, Vienna, Austria
- Kevin Kim, MD, California Pacific Medical Ctr, 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
- Carlo C. Maley, PhD, Arizona State University, Tempe, USA
- Donald M. McDonald, MD, PhD, University of California, San Francisco, USA
- Funda Meric-Bernstam, MD, University of Texas MD Anderson Cancer Center, Houston, TX
- Nobel Laureate W.E. Moerner, PhD, Stanford University, Stanford, USA
- Thomas Moss, MD, The MT Group, Los Angeles, USA
- Nicola Mozzillo, MD, National Cancer Institute of Naples, Naples, Italy
- S. David Nathanson, MD, Henry Ford Health System, Detroit, USA
- Lisa A. Newman, MD, MPH, Henry Ford Health System, Detroit, USA
- David R. Parkinson, MD, Essa Pharmaceuticals, Inc., Vancouver, Canada
- Barbara Pockaj, MD, Mayo Clinic, Phoenix, USA
- Danial Pregibo, PhD, Abcam, Cambridge, USA
- Douglas S. Reintgen, MD, University of South Florida, Tampa, 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, Tuscon, 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
- 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, Tuscon, USA
- Isaac P. Witz, PhD, Tel Aviv University, Tel Aviv, Israel
- Roman Yelensky, PhD, Gritstone Oncology, Inc, Boston, USA
- Jonathan S. Zager, MD, Symposium Co-Chair, Moffitt Cancer Center, Tampa, USA
Cancer Metastasis through the Lymphovascular System: Biology & Treatment, 7th International Symposium is generously supported by the following organizations:

**Funding Statement**
This activity is supported by educational grants from **Eli Lilly** and **Pfizer**.
CME Accreditation

Joint Providership Accreditation Statement:

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the Academy for Continued Healthcare Learning (ACHL) and the Sentinel Node Oncology Foundation (SNOF). ACHL is accredited by the ACCME to provide continuing medical education for physicians.

Credit Designation

The Academy for Continued Healthcare Learning designates this live activity for a maximum of 16 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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.

For more information: [http://www.cancermetastasis.org/](http://www.cancermetastasis.org/)