2nd Annual

LYMPHEDEMA SYMPOSIUM

Beth Israel Deaconess Medical Center

HARVARD MEDICAL SCHOOL TEACHING HOSPITAL

NOV 2-3 2018

CLINICAL SYMPOSIUM

Merck Research Laboratories
33 Avenue Louis Pasteur
Boston, MA 02115
617-992-2000

BOSTON
Welcome to Boston!

We are thrilled that you have joined us for our 2nd Annual Lymphedema Symposium hosted by the Beth Israel Deaconess Medical Center (BIDMC), a Harvard Medical School teaching hospital and in partnership with Lymphatic Education and Research Network (LE&RN).

This symposium encourages the integrated multi-disciplinary team approach to lymphatic care we have found successful here at BIDMC. This year, our program has been expanded to include two sessions dedicated to securing a fundamental understanding of the lymphatic system (Sessions 1 & 2), two sessions focused on cutting edge topics in lymphedema therapy (Session 3 & 4), and a section describing up-to-date imaging techniques for the diagnosis and management of lymphedema (Session 5). Following the first day of sessions a Welcome Reception will be held in the Atrium. On the second day, we will review current concepts of lymphedema prevention at the time of breast surgery (Session 6), discuss important approaches to lymphatic surgery (Session 7), get an update on current lymphedema research (Session 8), and review the impact of radiation on the development of lymphedema (Session 9). Through the multidisciplinary exchange of information we will forge new interdisciplinary relationships to advance the care of patients with lymphedema. To facilitate the exchange we encourage attendees to register as Teams and recognize those that have done so:

Anna Jaques Hospital (MA), Backus Hospital (CT), Baton Rouge General Medical Center (LA), Delia Smith Physical Therapy PC (OR), Good Shepherd Penn Partners (PA), Oregon Health Sciences University (OR), Lifespan (RI), Omnitherapy Center (NJ), Rhode Island Hospital (RI) and UNC Rex Hospital (NC).

Alongside our theme of teamwork, we are placing an emphasis on Breast Cancer Related Lymphedema. We have invited Dr. Hiroo Suami, a world leader in lymphatic anatomy, to come to Boston ahead of the symposium to dissect the lymphatic system of a human cadaver arm. This prosection will be available for viewing at the BIDMC Pathology Department (sign up at the registration desk). We have an entire session (Session 6) dedicated to breast surgery and understanding how the field of breast surgical oncology is moving towards preventing the most common cause of lymphedema in the United States. At our patient symposium, we have invited Dr. John Boyages from Australia, author of “Breast Cancer: Taking Control” to speak regarding breast cancer survivorship. Dr. Boyages will be hosting a book signing for registrants of the patient symposium. Finally, a much anticipated presentation at the symposium this year will be the keynote address from LE&RN Spokesperson and Academy Award Winning Actress Ms. Kathy Bates, a breast cancer survivor and outspoken advocate for furthering lymphatic care.

Make no mistake about it, it will be an exciting 2 days! At our second year of the symposium we would like to express special thanks to two individuals without whom the symposium would never have gotten off the ground. First, this symposium was conceived by our Honorary Chair, Dr. Sumner Slavin, Associate Clinical Professor and prior Chief of Plastic Surgery at BIDMC. His research and years of dedication to lymphedema patients have led to important institutional recognition of the importance of lymphatic disorders. Secondly, we are indebted to Dr. Bernard T. Lee, Professor of Surgery and Chief of Plastic Surgery, for providing the support and guidance that has allowed this symposium to become one of the premier opportunities to advance the care of patients with lymphedema.

We want to ensure that you have an enjoyable stay here in Boston. Please do not hesitate to reach out to any of our event staff at the registration desks or members of our program committee if there is anything we can do to make your experience more rewarding.

The Lymphedema Symposium Program Committee, 2018
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**EVENT PROGRAM**

**FRIDAY NOV 2, 2018**

**IMPORTANT:** Please note that small groups of symposium registrants will be escorted to the BIDMC Pathology Department beginning on Friday afternoon, and throughout the day Saturday, to review the upper extremity lymphatic prosection with Dr. Hiroo Suami. Sign up for these small groups will be at the registration desk.

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>6:30 am</td>
<td>REGISTRATION / BREAKFAST</td>
<td>Bernard Lee, MD, MPH and Program Committee</td>
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<tr>
<td>7:40</td>
<td>Welcome Remarks</td>
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<tr>
<td>8:00</td>
<td>The BIDMC Approach</td>
<td>Dhruv Singhal, MD</td>
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<td>8:10</td>
<td>The ALERT Program</td>
<td>John Boyages, MD, PhD</td>
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<td>8:20</td>
<td>LE&amp;RN and Centers of Excellence</td>
<td>William Repicci</td>
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<tr>
<td>8:30</td>
<td>Anatomy of the Lymphatic System</td>
<td>Hiroo Suami, MD, PhD</td>
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<td>8:50</td>
<td>Physiology of the Lymphatic System</td>
<td>Timothy Padera, PhD</td>
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<td>9:10</td>
<td>Mechanisms of Primary Lymphedema</td>
<td>Pia Ostergaard, MD</td>
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<td>9:30</td>
<td>Q&amp;A</td>
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<tr>
<td>9:50</td>
<td>MORNING BREAK and Refreshments</td>
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<tr>
<td>10:10</td>
<td>Overgrowth Syndromes Associated with Lymphedema</td>
<td>Steven Fishman, MD</td>
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<td>10:30</td>
<td>Differential for Edema and Secondary Causes of Lymphedema</td>
<td>Brett Carroll, MD</td>
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<tr>
<td>10:50</td>
<td>Emerging Medical Treatments for Lymphedema</td>
<td>Stanley Rockson, MD</td>
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<td>11:10</td>
<td>Q&amp;A</td>
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<tr>
<td>11:30</td>
<td>LUNCH</td>
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<tr>
<td>12:30</td>
<td>Surveillance and Early Intervention for BCRIL: What is the Evidence and How Early Should We Treat?</td>
<td>Cheryl Brunelle, PT, CLT</td>
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<td>12:50</td>
<td>Impact of BMI on Lymphedema: Rehab Evaluation &amp; Intervention</td>
<td>Derly Munoz, PT, CLT, MTC</td>
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<td>1:10</td>
<td>The Role of IGL to Guide Therapy</td>
<td>Hiroo Suami, MD</td>
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<td>1:30</td>
<td>Q&amp;A</td>
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<td>1:50</td>
<td>Therapy before and after LVB and VLNT</td>
<td>Kathy Shillue, PT, OCS, CLT</td>
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<td>2:10</td>
<td>Controlled Compression Therapy after Liposuction for Lymphedema –How to Maintain Control Over Time</td>
<td>Karin Ohlin, BS, OT</td>
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<td>2:30</td>
<td>Integrative Medicine for the Management of Lymphedema</td>
<td>Gloria Yeh, MD</td>
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<td>2:50</td>
<td>Q&amp;A</td>
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<td>3:10</td>
<td>AFTERNOON BREAK and Refreshments</td>
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<td>3:30</td>
<td>MRI for Lymphedema Evaluation</td>
<td>Alexander Kagen, MD</td>
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<td>3:50</td>
<td>MR Lymphangiography</td>
<td>Jeffery Maki, MD, PhD</td>
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<td>4:10</td>
<td>Emerging MRI Techniques in Lymphedema Diagnosis</td>
<td>Manus Donahue, PhD</td>
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<td>4:30</td>
<td>Taiwan Lymphoscintigraphy Staging</td>
<td>Ming-Huei Cheng, MD</td>
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<td>4:50</td>
<td>Q&amp;A</td>
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<td>5:30 –7:00 pm</td>
<td>WELCOME RECEPTION  Hors d’oeuvres, Beer and Wine will be Served</td>
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7:00am  REGISTRATION / BREAKFAST

SESSION 7  BREAST SURGERY TO PREVENT LYMPHEDEMA  Moderator - Ted James, MD
8:00  Current Management of the Node Positive Axilla  Lisa Spiguel, MD
8:20  Axillary Reverse Mapping  Suzanne Klimberg, MD
8:40  Immediate Lymphatic Reconstruction (LYMPHA)  Dhruv Singhal, MD
9:00  Q&A
9:20

SESSION 8  LYMPHATIC SURGERY: A PRIMER  Moderator - Dhruv Singhal, MD
9:40  Lymphovenous Bypass  David Chang, MD
10:00  Lymph Node Transplantation  Roman Skoracki, MD
10:20  Suction Assisted Lipectomy  Håkan Brorson, MD, PhD
10:40  The Barcelona Cocktail  Jaume Masia, MD
11:00  Q&A
11:30-1:00pm  LUNCH

1:15 - 2:15pm  KEYNOTE ADDRESS: “LIVING WITH LYMPHEDEMA”
LE&RN Spokesperson and Academy Award-winning Actress Kathy Bates

Please note that this Joint Patient and Clinical Symposium Session will be held at the Joseph B. Martin Conference Center.

2:15-2:45pm  AFTERNOON BREAK and Refreshments

SESSION 9  LYMPHEDEMA RESEARCH SESSION  Moderator - Anna Rose Johnson
2:45  The Current State of Lymphedema Research  Babak Mehrara, MD
3:05  Podium Abstract Presentations

SESSION 10  UNDERSTANDING RADIATION DELIVERY & LYMPHEDEMA  Moderator - Abram Recht, MD
4:05  Brief Overview of Radiation Delivery  Abram Recht, MD
4:25  Radiation and BCRL  Alphonse Taghian, MD
4:45  Breast Lymphedema  John Boyages, MD, PhD
5:05  Q&A
5:25 - 5:30pm  CONCLUDING REMARKS AND ADJOURN

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3:05 – 3:10pm
**A Novel Approach to Quantifying Lymphatic Contractility Using ICG Lymphangiography**
Melisa D Granoff, Anna Rose Johnson, Bernard T. Lee, Echoe Bouta, Tim Padera, Dhruv Singhal
Beth Israel Deaconess Medical Center & Massachusetts General Hospital (Boston, MA)

3:10 – 3:15pm
**Reduction of Breast Lymphedema Secondary to Breast Cancer: A Pilot Randomized Controlled Exercise Trial**
Sharon Kilbreath, Leigh Ward, Glen Davis, Amy Degnim, Daniel Hackett, Tina Skinner, Deborah Black
University of Sydney & University of Queensland (Australia) and Mayo Clinic (Rochester, MN)

3:15 – 3:20pm
**Which Injection Points Should We Use for Upper Extremity Indocyanine Green Lymphangiography, A Comparative Study**
Itay Wiser, Dayan, Elizabeth Kenworthy, Andrew Weinstein, Babak Mehrara
Memorial Sloan Kettering Cancer Center (New York, NY)

3:20 – 3:25pm
**Lymphedema After SLNB: Who is at Risk?**
Atilla Soran, Arda Isik, Ariel Grassi, Ronald Johnson
Womens Hospital of UPMC (Pittsburgh, PA)

3:25 – 3:35pm **DISCUSSION**

3:35 – 3:40pm
**Lymphoscintigraphy for Breast Cancer Related Lymphedema: A Variety of Presentations**
Elizabeth Dylke, Geoff Schembri, Dale Bailey, Sharon Kilbreath
The University of Sydney (Australia)

3:40 – 3:45pm
**A Promising Study of Adenoviral Gene Therapy In Patients with Breast Cancer Treatment Associated Secondary Lymphedema**
Antti Vuolanto, Bertel Jungin Aukio, Outi Lahdenpera, Sinikka Suominen, Anne Saarikko, Pauliina Hartiala
Helsinki University Hospital and Turku University Central Hospital (Finland)

3:45 – 3:50pm
**Lymphorrhea, "Friend or Foe" for Supermicrosurgical Lymphaticovenous Anastomosis**
Johnson Chia-Shen, Shao-Chun Wu, Ching-Hua Hsieh
Kaohsiung Chang Gung Memorial Hospital (Taiwan)

3:50 – 3:55pm
**Evolution and De-Evolution of Breast Cancer-Related Lymphedema, as Assessed by Near-Infrared Fluorescence Lymphatic Imaging**
Melissa B. Aldrich
UT Health Center for Molecular Imaging (Houston, TX)

3:55 - 4:05pm **DISCUSSION**
**Taxane-Based Neoadjuvant Chemotherapy Adversely Impacts Lymphatic Contractility Rates**  
Melisa Granoff, Anna Rose Johnson, Jordan Broekhuis, Bernard T. Lee, Echoe Bouta, Tim Padera, Dhruv Singhal  
Beth Israel Deaconess Medical Center and Massachusetts General Hospital (Boston, MA)

**New Perspectives in Surgical Marking Since the Advent of Lymphovenous Mapping Under Infrared Laser Angiography**  
Jacob B. Hammond, Lyndsey Bryant, William Casey, Alanna Rebecca  
Mayo Clinic Arizona (Phoenix, AZ)

**Lymphedema Portal**  
Nayara Pereira Rios Gerez, Elaine Horibe Song, Lydia Masako Ferreira  
Universidade Federal de São Paulo – UNIFESP (Brasil)

**Correlation of Quality of Life in Patients with Lymphedema to Limb Volume, Bioimpedance, and Indocyanine Green Lymphangiography Stage**  
Itay Wiser, Joe Dayan, Elizabeth Kenworthy, Babak Mehrara  
Memorial Sloan Kettering Cancer Center (New York, NY)

**Lymphatic Anatomy of the Upper Extremity: Establishing a Standardized Technique for Indocyanine Green Lymphangiograph**  
Itay Wiser, Joe Dayan, Elizabeth Kenworthy, Andrew Weinstein, Babak Mehrara  
Memorial Sloan Kettering Cancer (New York, NY)

**A Multimetric Evaluation of Online Spanish Health Resources for Lymphedema**  
Melisa Granoff, Anna Rose Johnson, Andres Doval, Sabine Egeler, Samuel J. Lin, Bernard T. Lee, Dhruv Singhal  
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Satisfactory Completion

Learners must complete an evaluation form to receive a certificate of completion. Your chosen sessions must be attended in their entirety. Partial credit of individual sessions is not available.

If you are seeking continuing education credit for a specialty not listed below, it is your responsibility to contact your licensing/certification board to determine course eligibility for your licensing/certification requirement.

Physicians / Nurses

In support of improving patient care, this activity has been planned and implemented by Amedco LLC and Well Assembled Meetings. Amedco LLC is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Credit Designation Statement

Amedco LLC designates this live activity for a maximum of 13.50 AMA PRA Category 1 Credits™ for physicians and 13.50 contact hours for nurses. Learners should claim only the credit commensurate with the extent of their participation in the activity.

Objectives

After attending this program you should be able to:
1. Describe lymphatic anatomy of the upper extremity and the relationship to lymphatic pathology
2. Describe methods for diagnosis of and surgical and non-surgical treatment for Breast Cancer Related Lymphedema (BCRL)
3. Identify appropriate candidates for surgical procedures for prevention of BCRL & Discuss considerations for developing a multi-disciplinary lymphatic program

Disclosure of Conflict of Interest

The following table of disclosure information is provided to learners and contains the relevant financial relationships that each individual in a position to control the content disclosed to Amedco. All of these relationships were treated as a conflict of interest, and have been resolved. (C7 SCS 6.1-□6.2, 6.5) All individuals in a position to control the content of CE are listed in the program book. If their name is not listed below, they disclosed that they had no relevant financial relationships.

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<th>Name of Individual</th>
<th>Commercial Interest</th>
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<td>Eric Johnson</td>
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<td>Payment/ Equity</td>
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<td>CareCore National &amp; US Oncology Ask the Expert Panel</td>
<td>Honoraria</td>
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<td>Physiowave</td>
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<td>Jeffrey H Maki</td>
<td>Bracco Diagnostice</td>
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Click on the 2nd Annual Lymphedema Symposium link
Evaluate the conference
Please print all pages of your certificate for your record.
Questions? Email Certificate@AmedcoEmail.com

CEU Accreditation

AOTA is pleased to confirm approval of Well Assembled Meetings as an AOTA Approved Single Course Provider of continuing education. Well Assembled Meetings is authorized to assign 1.2 AOTA CEUs for “The Lymphedema Symposium”. “The assignment of AOTA CEUs does not imply endorsement of specific course content, products, or clinical procedures by AOTA.

The Federation of State Boards of Physical Therapy (FSBPT®) This activity is currently under review by ProCert. Should the activity be certified this outcome and the Continuing Competence Units (CCUs) awarded will be posted in the aPTitude system and attendees notified. Certification may be awarded retroactively after the actual delivery date of the activity.