

Curriculum Vitae

Date Prepared: May 22, 2023
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Place of Birth: Allentown, PA, USA

Education:

1995-1999	Bachelor of Arts	English Literature Mathematics	Cornell University, Ithaca, NY
1999-2003	Doctor of Medicine		University of Pittsburgh School of Medicine, Pittsburgh, PA

Postdoctoral Training:

07/03-06/04	Intern	General Surgery	Brigham and Women's Hospital, Boston, MA
07/04-06/07	Resident	General Surgery	Brigham and Women's Hospital, Boston, MA
07/07-06/08	Chief Resident	General Surgery	Brigham and Women's Hospital, Boston, MA
07/08-06/10	Resident	Plastic Surgery	Harvard Combined Plastic Surgery Program, Boston, MA
07/10-06/11	Chief Resident	Plastic Surgery	Harvard Combined Plastic Surgery Program, Boston, MA
07/11-06/12	Fellow	Craniofacial Surgery <i>Noordhoff Craniofacial Foundation Fellow</i>	Chang Gung Memorial Hospital, Taipei, Taiwan

7/12-10/12	Fellow	Microsurgery (Mentor: Professor Hung-Chi Chen)	China Medical University Hospital, Taichung City, Taiwan
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Faculty Academic Appointments:

12/12-07/16	Assistant Professor	Surgery	University of Florida School of Medicine
07/13-07/16	Assistant Professor	Oral and Maxillofacial Surgery	University of Florida School of Dentistry
09/16-05/17	Member of the Faculty	Surgery	Harvard Medical School
06/17-09/19	Assistant Professor	Surgery	Harvard Medical School
10/19-	Associate Professor	Surgery	Harvard Medical School

Appointments at Hospitals/Affiliated Institutions:

12/12-07/16	Attending Surgeon	Plastic and Reconstructive Surgery	UF Health Shands Hospital, Gainesville, FL
12/12-07/16	Attending Surgeon	Plastic and Reconstructive Surgery	Florida Surgical Center, Gainesville, FL
09/16-	Attending Surgeon	Plastic and Reconstructive Surgery	Beth Israel Deaconess Medical Center, Boston, MA
09/16-	Attending Surgeon	Plastic and Reconstructive Surgery	Beth Israel Deaconess Hospital – Needham, Needham, MA

Other Professional Positions:

2022-	Chair, DSMB for “Acebilustat (CTX-4430): A Novel Inhibitor of Leukotriene A4 Hydrolase”	Stanford University/Celltaxis LLC
2014-2016	Advisor	LIFEQUEST (Organ Procurement Organization)

Major Administrative Leadership Positions:**Local**

12/12-07/16	Director of Microsurgery, Department of Surgery	University of Florida School of Medicine
12/12-07/16	Director of Adult Craniofacial Surgery,	University of Florida School of Medicine

	Department of Surgery	
09/16-	Director of Lymphatic Surgery, Department of Surgery	Beth Israel Deaconess Medical Center
11/17-	Founder & President	Boston Lymphatic Symposium, Inc
	2022 PSF Breast Reconstruction Awareness Fund Charitable Care Award	
10/19-	Director, BIDMC Lymphatic Center	Beth Israel Deaconess Medical Center
06/20-	Co-Director, Boston Lymphatic Center	Beth Israel Deaconess Medical Center/ Boston Children's Hospital
07/20-10/21	Diversity, Equity, Inclusion Committee	Beth Israel Deaconess Medical Center
12/20-	Plastic Surgery Faculty Selection Committee	Beth Israel Deaconess Medical Center
02/21-	OR First Start Committee	Beth Israel Deaconess Medical Center

Professional Societies:

2015-	American Society of Plastic Surgeons	Active Member
2015-	American College of Surgeons	Associate Fellow
2016-	Southeastern Society of Plastic and Reconstructive Surgeons	Active Member
2016-	American Society for Reconstructive Microsurgery	Active Member
2017-	Member, Young Microsurgeons Committee	
2017-	Member, Program Committee	
2018-	Member, Bylaws Committee	
2017-	New England Society of Plastic and Reconstructive Surgeons	Active Member
2022-	Member, Nominating Committee	
2020-	American Association of Plastic Surgeons	Active Member
2023-	Member, Committee for Scientific Program Awards	
2022-	American Society of Lymphatic Surgeons	
2022-	Chair, Program Committee	

Editorial Activities:

Ad hoc Reviewer

Plastic and Reconstructive Surgery
 PRS Global Open
 Annals of Plastic Surgery
 Journal of Reconstructive Microsurgery
 International Microsurgery Journal

Annals of Surgical Oncology
Annals of Surgery

Other Editorial Roles

2016- Editorial Board International Journal of Microsurgery

Honors and Prizes:

1999	Graduated with Distinction in All Subjects	Cornell University
2004	Excellence in Teaching Award	Harvard Medical School
2006	Excellence in Teaching Award	Harvard Medical School
2006	Nominee, Graduating Class Best Teaching Resident Award	Harvard Medical School
2007	Nominee, Resident Award for Exemplary Teaching	American College of Surgeons
2008	Notable Teaching in the Surgery Clerkship	Tufts University
2008	Robert T. Osteen Teaching Award	Brigham and Women's Hospital
2011	Regan Fellowship	Operation Smile
2011	AOCMF Fellowship	AO Foundation (Arbeitsgemeinschaft für Osteosynthesefragen)
2014	University of Florida Health Physician Recognition Award	University of Florida
2014	3rd Place, Glancy Cup Competition: "VAC Therapy to the Brain: A Safe Method for Wound Temporization in Composite Scalp and Calvarial Defects"	Southeastern Society of Plastic and Reconstructive Surgeons Annual Meeting, Nassau, Bahamas
2015	2nd Place, Best Poster Competition: "The Impact of Sporting Events on the Volume of Facial Trauma"	Southeastern Society of Plastic and Reconstructive Surgeons Annual Meeting, Amelia Island, FL
2016	The Breast Journal Award: "Identifying and Surgically Treating Early Stage Lymphedema – A New Innovative Collaboration"	21 st Annual Multidisciplinary Symposium on Breast Disease, Amelia Island, FL
2018	Attendee, Harvard Medical School Leadership Development Course for Physicians and Scientists	Harvard Medical School
2019	LE&RN 2019 Impact Award	Lymphatic Education & Research Network
2022	LE&RN 2022 Nobility in Science Award	Lymphatic Education & Research Network

2023 Young Microsurgeon's Award World Society of Reconstructive Microsurgery

Report of Funded and Unfunded Projects

Funded Projects

Past

- 2019-2020 Lymphatic Reconstitution in Microvascular Breast Reconstruction
FIRST Program Grant to Improve Surgical Outcomes and Health of Surgical Patients
PI
Randomized control trial to evaluate lymphatic orientation during DIEP flap inset and effect on post-operative outcomes.

- 2018-2019 Evaluating Real-Time Changes in Lymphatic Flow Utilizing Optical Imaging
Lymphatic Education and Research Network (LE&RN) and the American Society for Reconstructive Microsurgery (ASRM) Combined Pilot Grant
PI
Evaluating the utility of optical imaging agents to measure real time changes in lymphatic flow in a swine model of LYMPHA.

- 2018-2019 Evaluating Real-Time Changes in Lymphatic Flow Utilizing Optical Imaging
Plastic Surgery Foundation Pilot Research Grant
PI
Evaluating the utility of optical imaging agents to measure real time changes in lymphatic flow in a swine model after lymphadenectomy.

- 2017-2018 Acupuncture for Breast Cancer Related Lymphedema
Osher Center for Integrative Medicine Pilot Research Grant
PI
Evaluating the efficacy of acupuncture in the treatment of Breast Cancer Related Lymphedema utilizing molecular markers, bioimpedance spectroscopy, and perometry.

Current

- 2021-2025 U54 HL165440
Multi-scale Spatial Mapping of Human Lymphatic Vessels
NIH Common Fund & National Heart, Lung, and Blood Institute
Contact PI (Just-in-Time completed; awaiting NOGA)
Mapping the anatomy and biomolecular markers of peripheral and central lymphatic vessels.

- 2021-2026 R01 HL157991
Mapping & Quantifying Lymphatic Drainage of the Arm's Alternate Pathway
National Heart, Lung, and Blood Institute
PI
Mapping the lymphatic anatomy of the upper extremity including variations.

Unfunded Current Projects

2022 2022P000450

- Development of Lymphedema after Non-Linear Upper Extremity Lymphatic ICG Imaging
 PI, Mentor
 Characterizing the risk of lymphedema development in breast cancer patients who present with non-linear patterns on pre-operative ICG lymphography prior to surgical cancer intervention
- 2022- 2022P000236
 Prevalence of Fat-Dominant Lymphedema: Primary vs Secondary
 PI, Mentor
 Evaluating the proportion of primary versus secondary lymphedema patients who present with fat dominant disease
- 2022 - 2022P000234
 Radiation at the Site of Immediate Lymphatic Reconstruction
 PI, Mentor
 Evaluating the delivery of radiation to the site of immediate lymphatic reconstruction in breast cancer patients in an effort to develop strategies to minimize radiation injury
- 2022 2022P000092
 Five-Year Experience with Vascularized Lymph Node Transfer
 PI, Mentor
 Reviewing our Center's experience performing vascularized lymph node transfer for the treatment of breast cancer related lymphedema
- 2021 2021P000859
 Superficial and Functional Imaging of the Tricipital Pathway: A Modern Reintroduction
 PI, Mentor
 Quantifying the prevalence and variable course of the tricipital lymphatic pathway in breast cancer patients
- 2021 2021P000810
 Presence of Cephalic Vein and Lateral Lymphatic Pathway
 PI, Mentor
 Elucidating the relationship between the presence of the lateral upper arm lymphatic pathway and the presence or absence of the cephalic vein
- 2021- 2021P000364
 Gene Expression in Adipose Tissue in lymphatic surgery patients
 PI, Mentor
 Single Cell RNA sequencing of adipose tissue in affected and unaffected extremities of lymphedema patients to better understand the driving mechanism for fat hypertrophy
- 2020- 2020P000546
 Tracking Symptoms in Lymphedema Patients after Debulking Procedures
 PI, Mentor
 Evaluating the effect of debulking procedures on symptoms in lymphedema patients
- 2018- 2018P000320
 Circulating Proteins in Breast Cancer-Related Lymphedema
 PI, Mentor
 Comparing biomolecular markers in blood samples from breast cancer survivors after axillary lymph node dissection who did and did not develop breast cancer related lymphedema.
- 2017- 2017P000378
 Measuring Skin Elasticity in Lymphedema Patients

PI, Mentor

Development and testing of a device to quantify skin changes in patients with lymphedema

2017-

2017P000190

Lymphedema Repository

PI, Mentor

Development of a Lymphedema Repository at BIDMC to allow for evaluation of lymphedema outcomes from cancer procedures and treatments for lymphedema including surgical and non-surgical options. Biorepository with over 1,000 samples of human lymphatic tissue as of June, 2022.

Patent

Singhal, D, Singhal K, and Kuester W. 2020. Anastomic Device. US Patent 122295-05104. Filed December 23, 2020.

Report of Local Teaching and Training

Teaching of Students in Courses:

01/2014	“Wound Healing”/3 rd Year Medical Student Surgical Core Clerkship Didactics	University of Florida School of Medicine 1 Hour Lecture
06/2014	“Wound Healing”/3 rd Year Medical Student Surgical Core Clerkship Didactics	University of Florida School of Medicine 1 Hour Lecture
11/2014	“Wound Healing”/3 rd Year Medical Student Surgical Core Clerkship Didactics	University of Florida School of Medicine 1 Hour Lecture

Formal Teaching of Residents, Clinical Fellows and Research Fellows (post-docs):

08/2013	“Facial Soft Tissue Trauma”/Oral and Maxillofacial Surgery Conference	University of Florida School of Dentistry 1 Hour Lecture
06/2014	“Eyelid Reconstruction”/Oral and Maxillofacial Surgery Conference	University of Florida School of Dentistry 1 Hour Lecture
12/2014	“Microsurgery for the Head and Neck – Flap Anatomy and Their Applications”/Oral and Maxillofacial Surgery Conference	University of Florida School of Dentistry 1 Hour Lecture
12/2015	“Microsurgery and Its Principles”/UF Division of Plastic Surgery Conference	University of Florida School of Medicine 1 Hour Lecture
01/2017	“Mandible Fractures”/Harvard Plastic Surgery Cadaver Dissection Course	Harvard Medical School 4 Hour Hands-On Dissection Course
02/2017	“Extremity Flaps”/BIDMC General Surgery Cadaver Dissection Course	Harvard Medical School 2 Hour Hands-On Dissection Course
05/2017	“Lymphedema for Cardiologists”	Harvard Medical School

	Cardiology Fellow Core Conference	1 Hour Lecture
01/2018	“Mandible Fractures”/Harvard Plastic Surgery Cadaver Dissection Course	Harvard Medical School 4 Hour Hands-On Dissection Course

Clinical Supervisory and Training Responsibilities:

2012-2016	Attending surgeon supervising plastic surgery residents, fellows, and medical students in the ambulatory clinic and operating room	University of Florida 20 hours/week
2016-	Attending surgeon supervising plastic surgery residents, fellows, and medical students in the ambulatory clinic and operating room	Beth Israel Deaconess Medical Center 20 hours/week

Laboratory and Other Research Supervisory and Training Responsibilities:

2013-2016	Supervision of medical student/research fellows in clinical outcomes research. This includes University of Florida School of Medicine and Dentistry students, UF plastic surgery residents, and fellows. We have bi-weekly meeting where we discuss the direction of our activities, including study design, statistical analysis, and manuscript preparation.	Bi-weekly mentorship
2016-	Supervision of medical student/research fellows in clinical outcomes research. This includes HMS students, Harvard plastic surgery residents, and fellows. We have bi-weekly meeting where we discuss the direction of our activities, including study design, statistical analysis, and manuscript preparation.	Bi-weekly mentorship

Formally Mentored Trainees and Faculty:

2013-2014	Ivan Samcam, MD/Private Practice, Pain Medicine, Fort Myers, FL Mentored during medical school at the University of Florida. Co-author on 2 publications.
2013-2014	Noah Prince, MD/Private Practice, Plastic Surgery, Daytona Beach, FL Mentored during plastic surgery residency at the University of Florida. Co-author on 1 publication.
2014-2015	Timothy Lee, MD/Private Practice, Internal Medicine, New Port Richey, FL Mentored during post-baccalaureate premedical program at the University of Florida. Co-author on 2 publications.
2014-2015	Nirav Patel, MD/Radiology Resident, University of Florida, Gainesville, FL Mentored during medical school at the University of Central Florida. Co-author on 3 publications.

- 2015-2016 Bradley Nesmith, MD/Attending Plastic Surgeon, Private Practice
Mentored during plastic surgery residency at the University of Florida.
- 2015-2016 Nachi Gupta MD, PhD/Kriya Therapeutics, President, Technology
Research mentor during emergency medicine residency. Co-author on 1 publication.
- 2016- Rushil Dang, DMD/Microsurgery Fellow, Chang Gung Memorial Hospital
Career mentor during OMFS residency and microsurgery fellowship.
- 2016-2017 Joseph Ricci, MD/Attending Plastic Surgeon, Northwell Health
Served as faculty mentor during plastic surgery residency training at Harvard Combined Plastic Surgery Program. Co-author on 3 publications.
- 2016-2017 Sherise Epstein, MD, MPH/Otolaryngology Resident, University of Washington
Served as a research mentor during research fellowship at BIDMC. Co-author on 8 publications.
- 2016-2017 Avery Capone, MD/Attending Plastic Surgeon, Private Practice
Served as a research mentor during plastic surgery residency. Co-author on 3 publications.
- 2016-2018 Bao Ngoc Tran, MD/Attending Plastic Surgeon, Private Practice
Served as research and career mentor during research fellowship at BIDMC. Co-author on 22 publications.
- 2016-2018 Austin D Chen, MD/Plastic Surgery Resident, Mayo Clinic
Served as a research mentor during research fellowship at BIDMC. Co-author on 7 publications.
- 2016-2018 Qing Ruan, MD/Anesthesia Resident, BIDMC
Served as a career and research mentor during research fellowship at BIDMC. Co-author on 12 publications.
- 2017 Sarah Kimball, MD/Private Practice, Breast Surgery, Sarasota, Florida
Served as a research mentor during BIDMC breast surgery fellowship. Co-author on 1 publication.
- 2017-2018 Art Celestin, MD/Hand Fellow, NYU Hand Surgery Fellowship
Served as a research mentor during general surgery training. Co-author on 1 publication.
- 2017-2019 Anna Rose Johnson, MD MPH/Plastic Surgery Resident, Washington University
Served as career and research mentor during research fellowship at BIDMC. Co-author on 25 publications.
- 2018-2019 Joani Christensen, MD/Attending Plastic Surgeon, MD Anderson Cancer Center
Served as a research mentor during plastic surgery residency in developing a randomized control trial. Co-author on one publication.
- 2017-2020 Guenwon Kim, MD/Attending Radiologist, Private Practice
Research mentor during radiology residency. Co-author on 3 publications.
- 2018-2019 Miguel Bravo, MD/Attending Plastic Surgeon, Spain
Served as research mentor during research fellowship at BIDMC. Co-author on 5 publications.

- 2019-2021 Ryoko Hamaguchi, MD/Plastic Surgery Resident, MGB Harvard Plastic Surgery Program
Served as a research mentor during research years. Co-author on 4 publications.
- 2018-2021 Melisa Granoff, BA/Psychiatry Resident, Cambridge Health Alliance
Served as career and research mentor during her research fellowship at BIDMC including her
JOBST Lymphatic Research Grant. Co-author on 17 publications.
- 2018-2021 Tanya Positan/Undergraduate Student, Boston College
Served as formal longitudinal research mentor from sophomore through senior year of high
school. Co-author on 1 publication.
- 2019-2021 Jaime Pardo, MD/Plastic Surgery Resident, Rush University
Served as a research mentor during his research fellowship at BIDMC. Co-author on 10
publications
- 2020- Joshua Bloom, MD/Plastic Surgery Resident, BIDMC Plastic Surgery Program
Served as research mentor during general surgery training. Co-author on 2 publications.
- 2021 Brodie Lee/Undergraduate Student, Georgetown University
Served as research mentor during senior year in high school. Co-author on 1 publication.
- 2020- Valeria Bustos, MD/Plastic Surgery Resident, University of Miami
Serve as research mentor during her research fellowship at BIDMC. Co-author on 1
publication.
- 2021- Rosie Friedman, BS/University of Vermont Medical Student
Serve as career and research mentor during medical school research fellowship at BIDMC. Co-
author on 15 publications.

Formal Teaching of Peers (e.g., CME and other continuing education courses):

No presentations below were sponsored by 3rd parties/outside entities

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|---------|--|-----------------------------------|
| 03/2018 | “Lymphedema: Advances in Prevention and Management”
11 th Annual Physician Education Day, course offered by Beth Israel
Deaconess Medical Center and Beth Israel Deaconess Care
Organization | Single presentation
Boston, MA |
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Local Invited Presentations:

No presentations below were sponsored by 3rd parties/outside entities

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| 10/2000 | “Multi-Modality Affects Longer Term Survival in Patients with Primary Central Nervous
System Lymphoma”
Medical Student Research Symposium
University of Pittsburgh School of Medicine, Pittsburgh, PA |
| 11/2007 | “Vascular Extremity Trauma: Lessons Learned from War”/ Surgical Grand Rounds
Department of Veterans Affairs: VA Boston Healthcare System, Boston, MA |
| 04/2008 | “International Surgery” / Surgical Grand Rounds
Brigham and Women’s Hospital, Boston, MA |

- 02/2013 “Reconstructive Surgery: What’s New?!” / Surgical Grand Rounds
University of Florida, Gainesville, FL
- 01/2014 “OSA Surgical Indications”/UF Sleep Team Conference
University of Florida, Gainesville, FL
- 01/2014 “Peri-operative Care of the Free Flap Patient: Part 1”/10-5 Clinical Unit Lecture
University of Florida, Gainesville, FL
- 01/2014 “Peri-operative Care of the Free Flap Patient: Part 2”/10-5 Clinical Unit Lecture
University of Florida, Gainesville, FL
- 04/2014 “VAC Therapy to the Brain: A Safe Method for Wound Temporization in Composite Scalp and
Calvarial Defects”
University of Florida Department of Surgery, Research Day, Gainesville, FL
- 04/2014 “Preparation of a Total Rhinectomy Defect for Prosthesis: A Novel Approach Utilizing the
Inferior Turbinate Flap”
University of Florida Department of Surgery, Research Day, Gainesville, FL
- 05/2014 “Microsurgery: Applications and Management”/SICU Conference
University of Florida, Gainesville, FL
- 07/2014 “VAC Therapy to the Brain: A Safe Method for Wound Temporization in Composite Scalp and
Calvarial Defects” / Department of Neurosurgery Grand Rounds
University of Florida, Gainesville, FL
- 10/2014 “Surgical Management of Lymphedema”/NFRMC Cancer Center
Gainesville, FL
- 04/2015 “Prevention of Extremity Lymphedema”/UF Multidisciplinary Breast Conference
Gainesville, FL
- 04/2015 “Integrative Medicine and Plastic Surgery”
University of Florida Department of Surgery, Research Day, Gainesville, FL
- 04/2015 “Lymph Node Transplantation and Quantitative Clearance Lymphoscintigraphy”
University of Florida Department of Surgery, Research Day, Gainesville, FL
- 04/2015 “The Impact of Sporting Events on the Volume of Facial Trauma”
University of Florida Department of Surgery, Research Day, Gainesville, FL
- 06/2015 “Lymphedema: A Surgeon’s Perspective”/UF Department of Surgery Grand Rounds
Gainesville, FL
- 06/2015 “Lymphedema and Lymphatic Surgery: What You Need to Know?!”/UF Department of
Physical Therapy Invited Lecturer
Gainesville, FL
- 11/2015 “Lymphedema: A Surgeon’s Perspective”/UF Department of Obstetrics and Gynecology
Grand Rounds
Gainesville, FL

- 03/2016 “A Lymphedema Surveillance Protocol: Impact on a Lymphatic Surgery Program”
University of Florida Department of Surgery, Research Day, Gainesville, FL
- 08/2016 “Managing Lymphedema at BIDMC”/BIDMC Multidisciplinary Breast Conference
Boston, MA
- 09/2016 “Lymphedema and Lymphatic Surgery: My Journey”/BIDMC Division of Plastic and
Reconstructive Surgery Conference
Boston, MA
- 09/2016 “Managing Lymphedema at BIDMC”/BIDMC Division of Vascular Surgery Conference
Boston, MA
- 11/2016 “Utilization and Perception of Integrative Medicine Amongst Plastic Surgery
Patients”/Integrative Health Network Form, Harvard Medical School
Boston, MA
- 02/2017 “Lymphatic Surgery at BIDMC”/BIDMC Physical Therapy Grand Rounds
Boston, MA
- 06/2017 “Lymphatic Surgery: Peri-operative Management”/BIDMC PACU, East
Boston, MA
- 07/2017 “The Effect of Infection on the Lymphatic System – Clinical and Research Aspects of
Lymphatic Surgery”/BIDMC, Infectious Disease CRES conference, Boston, MA
- 08/2017 “Lymphatic Surgery Patients: Peri-operative Nursing Care”/BIDMC Stoneman 5
Boston, MA
- 9/2017 “Lymphedema and Lymphatic Surgery: A Journey”/Cambridge Health Alliance Surgical
Grand Rounds, Cambridge, MA
- 10/2017 “Lymphedema – What You Need to Know?!”/BIDMC Health Care Associates Educational
Conference (Shapiro 6) Boston, MA
- 11/2017 “Management of Lymphedema: A New Strategy for Treatment”/BIDMC Division of Podiatry,
Monthly Lecture Series, Boston, MA
- 01/2018 “Lymphedema: A New Frontier in Prevention and Management”/Seminars in Vascular
Biology, Boston Children’s Hospital, Boston, MA
- 01/2019 “Relief from Lymphedema for Cancer Patients with both Upper and Lower Extremity
Lymphedema”/BIDMC Cancer Center/Affiliates Program, Boston, MA
- 07/2019 “Lymphedema”/BIDMC Division of Plastic and Reconstructive Surgery Conference
Boston, MA
- 10/2019 “Lymphatic Surgery”
MGH Multi-disciplinary Breast Cancer Rounds, Boston, MA
- 02/2020 “Lymphatic Surgery for OR Personnel”/Operating Room Personnel Staff Meeting, BIDMC,
Boston, MA
- 03/2020

06/2020	“Immediate Lymphatic Reconstruction at the Beth Israel Deaconess Medical Center”/2020 Breast Cancer Retreat, Boston, MA
06/2020	“Lymphedema: Assessment and Cutting Edge Management” MGH Vascular Medicine Conference, Boston, MA
09/2020	“The BIDMC Lymphatic Center” BIDMC Urology Grand Rounds, Boston, MA
10/2020	“The BIDMC Lymphatic Center” MGH/BWH Plastic Surgery Grand Rounds, Boston, MA
10/2020	“Immediate Lymphatic Reconstruction: Updated Results” BIDMC Breast Tumor Board, Boston, MA
02/2021	“Lymphedema: Cutting Edge Assessment and Management” BWH Vascular Medicine Conference, Boston, MA
06/2021	“The Boston Lymphatic Center” BIDMC Vascular Surgery Conference, Boston, MA
10/2021	“The Boston Lymphatic Center” BIDMC Feldberg OR Nursing Team, Boston, MA
06/2022	“Improving Outcomes in Breast Reconstruction” Looking Back Facing Forward Conference, Boston, MA
01/2023	“Anatomical Research: Still Alive and Active in 2022” Surgical Horizons Talk, Boston, MA
04/2023	“Anatomical Research of the Upper Extremity Lymphatic System” Harvard Plastic Surgery Grand Rounds, Boston, MA
	“Lymphedema: What the Surgeon Needs to Know!” Lahey Plastic Surgery Didactic Session, Burlington, MA

Report of Regional, National and International Invited Teaching and Presentations

No presentations below were sponsored by 3rd parties/outside entities

Regional

06/2014	*“VAC Therapy to the Brain: A Safe Method for Wound Temporization in Composite Scalp and Calvarial Defects” Southeastern Society of Plastic and Reconstructive Surgeons, Nassau, Bahamas *3 rd Place, Glancy Cup Competition
06/2014	“High Volume Hydrodissection: Assessment of Flap Perfusion Utilizing Laser Doppler” Southeastern Society of Plastic and Reconstructive Surgeons, Nassau, Bahamas
06/2015	“Integrative Medicine and Plastic Surgery” Southeastern Society of Plastic and Reconstructive Surgeons, Amelia Island, FL

- 02/2016 *"Identifying and Surgically Treating Early Stage Lymphedema – A New Innovative Collaboration"
21st Annual Multidisciplinary Symposium on Breast Disease, Amelia Island, FL
**The Breast Journal Award*
- 06/2015 *"The Impact of Sporting Events on the Volume of Facial Trauma"
Southeastern Society of Plastic and Reconstructive Surgeons, Amelia Island, FL
**2nd Place, Best Poster Competition*
- 06/2016 "Early Results in Preventing Lymphedema: A Potential Paradigm Shift in Lymphatic Surgery"
Southeastern Society of Plastic and Reconstructive Surgeons, Orlando, FL
- 06/2016 "When Should Microscopically Positive Margins in Basal Cell Carcinoma Be Re-excised? Always, Sometimes, Never?"
Southeastern Society of Plastic and Reconstructive Surgeons, Orlando, FL
- 10/2016 "Lymphedema and Lymphatic Surgery: A Journey"
Brown University Plastic Surgery Grand Rounds, Providence, RI
- 10/2016 "Lymphedema and Lymphatic Surgery: A Journey"
University of Massachusetts Divisional Plastic Surgery Conference, Worcester, MA
- 11/2016 "Lymphedema and Lymphatic Surgery: A Journey"
Yale University Plastic Surgery Grand Rounds, New Haven, CT
- 11/2016 "Lymphedema and Lymphatic Surgery: A Surgeon's Perspective"
MetroWest Medical Center Medicine Grand Rounds, Natick, MA
- 12/2016 "Lymphedema and Lymphatic Surgery: My Journey"
Boston Medical Center, Boston, MA
- 06/2017 "Early Results in Preventing Lymphedema: A Potential Paradigm Shift in Lymphatic Surgery"
New England Society and Plastic and Reconstructive Surgery, Cape Cod, MA
- 06/2017 "Large Animal Model of Modified Lymphatic Microsurgical Preventative Healing Approach (LYMPHA)"
New England Society and Plastic and Reconstructive Surgery, Cape Cod, MA
- 10/2017 "The Lymphatic System"
Bioengineering 5850: Design of Implants, Northeastern University, Boston, MA
- 01/2019 "Lymphedema and Lymphatic Surgery"
Bioengineering 5850: Design of Implants, Northeastern University, Boston, MA
- 03/2019 "What Do You Do With an Idea?"
Visiting Professor, Resident Conference, Tufts Medical Center Department of Surgery, Boston, MA
- 03/2019 "Lymphatic Surgery: A Primer"
Visiting Professor, Tufts Medical Center Surgery Grand Rounds, Boston, MA

- 04/2019 “Lymphatic Surgery & The Multi-Disciplinary Approach to Lymphatic Care”
Metrowest Medical Center Surgical Grand Rounds, Framingham, MA
- 05/2019 “Lymphatic Surgery: A Primer”
Massachusetts Society of Plastic Surgery, Brookline, MA
- 06/2019 “Immediate Lymphatic Reconstruction”
New England Society of Plastic and Reconstructive Surgery, Newport, RI
- 06/2019 “Something New, Something Old, Something Borrowed – Understanding Lymphatic Anatomy Variations”
New England Society of Plastic and Reconstructive Surgery, Newport, RI
- 09/2019 “The BIDMC Lymphatic Center”
Lahey Cancer Center Breast MMOC Meeting, Burlington, MA
- 10/2019 “The BIDMC Lymphatic Center”
Lahey Cancer Center Tumor Board, Burlington, MA
- 01/2020 “Lymphedema & Lymphatic Surgery: A Primer”
Visiting Professor, Boston University School of Medicine Surgery Grand Rounds, Boston, MA
- 01/2020 “The BIDMC Lymphatic Center”
Visiting Professor, Brown University Department of Plastic Surgery Grand Rounds
Providence, RI
- 01/2020 “What Do You Do With An Idea?”
Visiting Professor, Brown University Resident Rounds, Providence, RI
- 03/2020 “Multi-Disciplinary Lymphatic Care – A Necessity, Not a Luxury”
Lymphedema: Awareness, Advances, & Advocacy Conference, Portsmouth, NH
- 03/2020 “Live ICG Demonstration: Intact and Diseased Lymphatics”
Lymphedema: Awareness, Advances, & Advocacy Conference, Portsmouth, NH
- 04/2020 “The Lymphatic Center at the Beth Israel Deaconess Medical Center”
Lahey Plastic Surgery Division Conference, Burlington, MA
- 02/2021 “Immediate Lymphatic Reconstruction: Thinking Differently”
Maine Medical Center, Breast Tumor Board, Portland, ME
- 06/2021 “The Boston Lymphatic Center”
Baystate Medical Center, Breast Tumor Board, Springfield, MA
- 06/2022 “Superficial and Functional Imaging of the Tricipital Pathway: A Modern Reintroduction”
New England Society of Plastic and Reconstructive Surgery, Portsmouth, NH
- 06/2022 “Tracking Symptoms of Patients with Lymphedema Before and After Power-Assisted Liposuction Surgery”
New England Society of Plastic and Reconstructive Surgery, Portsmouth, NH

National

- 01/2015 "Lymph Node Transplantation and Quantitative Clearance Lymphoscintigraphy"
American Society of Reconstructive Microsurgery, Nassau, Bahamas
- 01/2016 "A Lymphedema Surveillance Protocol: Impact on a Lymphatic Surgery Program"
American Society for Reconstructive Microsurgery, Scottsdale, AZ
- 05/2016 "Fluorescein Isothiocyanate: A Novel Application for Intra-operative Lymphatic Imaging"
Plastic Surgery Research Council, New York City, NY
- 05/2016 "Fluorescein Isothiocyanate: A Modification for Reverse Lymphatic Mapping in Lymph Node Transplantation"
Plastic Surgery Research Council, New York City, NY
- 05/2016 "Quantifying Lymph Nodes During Lymph Node Transplantation: The Role of Intra-operative Ultrasound"
Plastic Surgery Research Council, New York City, NY
- 01/2017 "Dyes and Lymphatic Surgery"
American Society for Reconstructive Microsurgery, Kona, HI
- 02/2017 "Early Results in Preventing Lymphedema: A Potential Paradigm Shift for Lymphatic Surgery"
Academic Surgical Congress, Las Vegas, NV
- 10/2017 "Integrative Medicine in Plastic Surgery: A Systematic Review of Our Literature"
Society of Asian Academic Surgeons, Birmingham, AL
- 10/2017 "Referrals of Plastic Surgery Patients to Integrative Medicine Centers: A Review of Resource Utility"
Society of Asian Academic Surgeons, Birmingham, AL
- 01/2018 "The Omental Lymph Node Transfer"
American Society for Reconstructive Microsurgery, Phoenix, AZ
- 07/2018 "Overview of Surgical Options for Lymphedema"
Lymphatic Education & Research Network CME Seminars for Physicians, Boston, MA
- 07/2018 "Suction Assisted Lipectomy for the Management of Lymphedema"
Lymphatic Education & Research Network CME Seminars for Physicians, Boston, MA
- 02/2019 "Immediate and Delayed Lymphatic Reconstruction at the BIDMC Lymphatic Center"
American Society for Reconstruction Microsurgery, Palm Desert, CA
- 04/2019 "Taxane-Based Neoadjuvant Chemotherapy Adversely Affects Lymphatic Contractility Rates"
American Academy of Plastic Surgeons, Baltimore, MD
- 07/2019 "How to Develop a Comprehensive Lymphatic Center"
Rutgers University Plastic Surgery Grand Rounds, Newark, NJ
- 10/2019 "Surgical Prevention of Lymphedema"
American College of Surgeons Clinical Congress, San Francisco, CA

- 10/2019 “Is LYMPHA Cost Effective? A Cost-Utility Analysis Evaluating the Impact of LYMPHA on Cost and Patient Quality of Life”
American College of Surgeons, San Francisco, CA
- 10/2019 “Precautionary Measures for Lymphedema: Expert Panel”
National Lymphedema Network Conference, Boston, MA
- 10/2019 “A Multi-disciplinary Approach to Lymphedema Care – A Necessity, Not a Luxury”
National Lymphedema Network Conference, Boston, MA
- 10/2019 “Live Demo of ICG Lymphography: The Intact Lymphatic System”
National Lymphedema Network Conference, Boston, MA
- 10/2019 “Establishing a Screening Program – What is Really Needed?”
National Lymphedema Network Conference, Boston, MA
- 01/2020 “Immediate Lymphatic Reconstruction”
American Society of Reconstructive Microsurgery, Fort Lauderdale, FL
- 01/2020 “Evaluation of Immediate Lymphatic Reconstruction: Refinement of a Large Animal Model”
American Society of Reconstructive Microsurgery, Fort Lauderdale, FL
- 07/2020 “Developing a Lymphatic Center: How We Did It”
University of California San Diego Plastic Surgery Grand Rounds (San Diego, CA)
- 10/2020 “Suction Assisted Lipectomy: An Important Tool in the Surgical Management of Lymphedema Patients”
Centers of Excellence 2020 Virtual Summit: State-of-the-Art Lymphatic Medicine, Stanford University
- 10/2020 “Immediate Lymphatic Reconstruction to Reduce the Risk of Lymphedema Development”
American Vein and Lymphatic Society Congress, Washington D.C.
- 10/2020 “The Surgical Treatment of Breast Cancer Related Lymphedema”
The American Society for Radiation Oncology (ASTRO), Miami, Florida
- 01/2021 “Immediate Lymphatic Reconstruction: Thinking Differently”
Memorial Sloan Kettering Surgery Grand Rounds, New York, New York
- 08/2021 “The Boston Lymphatic Center”
University of Utah Plastic Surgery Grand Rounds, Salt Lake City, Utah
- 10/2021 “The Surgical Management of Breast Cancer Related Lymphedema”
23rd Annual Lynn Sage Breast Cancer Symposium, Chicago, Illinois
- 01/2022 “The Master Surgeon is the Master Anatomist”
American Society of Reconstructive Microsurgery, Carlsbad, California
- 01/2022 “The Pre-operative Work-up (Staying Out of Trouble): A Team Effort”
American Society of Reconstructive Microsurgery (Masters Series), Carlsbad, California
- 09/2022 “Preventing Breast Cancer-Related Lymphedema: A Surgeon’s Journey Highlighting the Importance of Lymphatic Anatomy”
NIH (Yet to Be Charted: Lymphatic System in Health and Disease), Bethesda, Maryland

- 09/2022 “Surgical Options for Lymphedema: What the Clinician Must Know”
Lymphatic Disease: The Clinician/Patient Interface in State-of-the-Art Diagnosis and Management, Stanford University, Palo Alto, California
- 10/2022 “Lymphatic Anatomy Mapping – An Update”
Lymphatic Seminar, University of Southern California, Los Angeles, California
- 12/2022 “Surgery for Lymphedema – What the Clinician Must Know!”
Innovations in Wound Healing, Islamorada, Florida
- 01/2023 “Centers of Excellence: A Surgeon’s Perspective”
American Society of Reconstructive Microsurgery, Miami, Florida
- 01/2023 “Radiation Therapy Planning after Immediate Lymphatic Reconstruction: Dosimetric Implications”
American Society of Reconstructive Microsurgery, Miami, Florida
- 01/2023 “The Superficial and Functional Imaging of the Tricipital Pathway: A Modern Re-introduction”
American Society of Reconstructive Microsurgery, Miami, Florida

International

- 09/2017 “Craniofacial Neurofibromatosis – Guidelines for Management”
30th World Congress of the International College for Maxillofacial Surgery, Boston, MA
- 09/2017 “Fluorescein Isothiocyanate: A Novel Application for Intra-operative Lymphatic Imaging”
26th World Congress of Lymphology, Barcelona, Spain
- 09/2017 “A Novel Animal Model for the Surgical Prevention of Lymphedema: The Power of Molecular Imaging”
26th World Congress of Lymphology, Barcelona, Spain
- 09/2017 “Early Results in Preventing Lymphedema: A Potential Paradigm Shift in Lymphatic Surgery”
26th World Congress of Lymphology, Barcelona, Spain
- 10/2018 “How to Start a Lymphatic Surgery Program”
International Course of Supermicrosurgery, Jinan, China
- 10/2018 “A Novel Animal Model for the Surgical Prevention of Lymphedema: The Power of Molecular Imaging”
International Course of Supermicrosurgery, Jinan, China
- 10/2018 “Dyes and Lymphatic Surgery”
International Course of Supermicrosurgery, Jinan, China
- 03/2019 “Immediate Lymphatic Reconstruction”
Red Sea Plastic Surgery Meeting, Eilat, Israel
- 03/2019 “Clinical Assessment of Lymphatic Contractility”
Red Sea Plastic Surgery Meeting, Eilat, Israel

- 03/2019 “Hydrodissection to Facilitate DIEP Flap Perforator Dissections”
Red Sea Plastic Surgery Meeting, Eilat, Israel
- 03/2019 “Lymphedema Risk Reducing Surgery in Breast Cancer”
European School of Reconstructive Microsurgery, Barcelona, Spain
- 03/2019 “What Do You Do With an Idea?”
Keynote Lecture, European School of Reconstructive Microsurgery, Barcelona, Spain
- 03/2019 “How To Build Your Research Work in Supermicrosurgery”
European School of Reconstructive Microsurgery, Barcelona, Spain
- 03/2019 “Immediate Lymphatic Reconstruction”
Barcelona Breast Meeting, Barcelona, Spain
- 03/2019 “Improving Aesthetic Outcomes in Breast Reconstruction”
Barcelona Breast Meeting, Barcelona, Spain
- 04/2019 “Immediate Lymphatic Reconstruction: Current Results”
8th World Symposium for Lymphedema Surgery, Taipei, Taiwan
- 04/2019 Live Surgery: Immediate Lymphatic Reconstruction
8th World Symposium for Lymphedema Surgery, Taipei, Taiwan
- 05/2019 “Lymphatic Surgery Research: An Update”
53rd Spanish National Plastic Surgery Congress, Madrid, Spain
- 06/2019 “Immediate Lymphatic Reconstruction: Current Results”
World Society for Reconstructive Microsurgery, Bologna, Italy
- 06/2019 “Immediate Lymphatic Reconstruction: Update on Research”
World Society of Reconstructive Microsurgery, Bologna, Italy
- 05/2020 “BIDMC Lymphatic Center”
Virtual Visiting Professor, Tata Memorial Hospital, Mumbai, India
- 05/2020 “Immediate Lymphatic Reconstruction”
International Confederation of Plastic Surgery Societies/Webinar SMH Series London, England
- 09/2020 “Surgical Options for Lymphedema”
Association of Surgeons of India, Odisha Chapter, Odisha, India
- 10/2020 “Liposuction for Advanced Lymphedema”
European School of Reconstructive Microsurgery, Barcelona, Spain
- 10/2020 “Immediate Lymphatic Reconstruction”
9th World Symposium for Lymphedema Surgery, Barcelona, Spain
- 10/2020 “Second Best Microsurgical Breast Reconstruction Option after DIEP: The SGAP Flap”
Barcelona Breast Meeting, Barcelona, Spain
- 12/2020 “Surgery for Lymphedema”
18th Annual Conference of the Diabetic Foot Society of India, Chennai, India

- 01/2021 “Immediate Lymphatic Reconstruction in Breast Cancer Management”
13th Breast-Gynecological & Immuno-oncology International Cancer Conference, Cairo, Egypt
- 03/2021 “Immediate Lymphatic Reconstruction”
European School of Reconstructive Microsurgery, Barcelona, Spain
- 09/2021 “Immediate Lymphatic Reconstruction”
28th World Lymphology Congress, Athens, Greece
- 09/2021 “The Master Surgeon is the Master Anatomist: An Opportunity for Lymphedema Prevention”
28th World Lymphology Congress, Athens, Greece
- 09/2021 “The Surgical Management of Lymphedema”
The American Society of Breast Surgeons: “Breastics 24h”
- 04/2022 “The Master Surgeon is the Master Anatomist” (Keynote Lecture)
65th Annual Meeting of Japan Society of Plastic and Reconstructive Surgery, Osaka, Japan
- 09/2022 “Immediate Lymphatic Reconstruction”
8th International Breast Surgery Workshop and 4th World Consensus Conference on BIA-ALCL, MD Anderson Cancer Center, Houston, Texas
- 04/2023 “Anatomical Research of the Human Lymphatic System”
International Microsurgery Club, Chang Gung Memorial Hospital, Linkou, Taiwan
- 04/2023 “The Boston Lymphatic Center’s Experience with Lymph Node Transplantation”
9th World Symposium on Lymphedema Surgery, Barcelona, Spain
- 04/2023 “The Boston Lymphatic Center’s Experience with Power Assisted Liposuction for Lymphedema: A Focus on Symptoms”
9th World Symposium on Lymphedema Surgery, Barcelona, Spain
- 04/2023 “The Boston Lymphatic Center’s Experience with Immediate Lymphatic Reconstruction”
9th World Symposium on Lymphedema Surgery, Barcelona, Spain
- 06/2023 “The Boston Lymphatic Center’s Experience with Immediate Lymphatic Reconstruction”
31st Annual Meeting of the Japanese Breast Cancer Society, Yokohama, Japan

Report of Clinical Activities and Innovations

Current Licensure and Certification:

- 2008 Massachusetts Medical License
- 2008 American Board of Surgery
- 2012 Florida Medical License
- 2013 American Board of Plastic Surgery
- 2014 American Board of Integrative and Holistic Medicine

Practice Activities:

2012-2016	Surgery	Plastic and Reconstructive Surgery University of Florida	3.5 days/week
2012-2016	Ambulatory Care	Plastic and Reconstructive Surgery University of Florida	1 day/week
2016-	Surgery	Plastic and Reconstructive Surgery Beth Israel Deaconess Medical Center	3.5 days/week
2016-	Ambulatory Care	Plastic and Reconstructive Surgery Beth Israel Deaconess Medical Center	1 day/week

Clinical Innovations:

Hydrodissection of Microsurgical Perforators

A microsurgical technique I developed as a Harvard plastic surgery resident and have since studied in both animals and humans. Work has been presented nationally and published. Now used routinely in operative dissections at HMS hospitals and nationally.

- **Singhal D**, Momoh A, Colakoglu S, Qureshi A, Tobias A, Lee B. Intra-muscular perforator dissection with the hydrodissection technique. *J Reconstr Microsurg.* 2013 Jan;29(1):45-9.
- **Singhal D**, Fanzio PM, Lee ET, Chang CJ, Lee BT, Cheng MH. High volume hydrodissection – increasing the efficiency and safety of perforator dissection. *Ann Plast Surg.* 2014 Aug;73(2):219-24.
- Fanzio PM, Cheng MH, Samcam I, Lin YT, Gorantla V, Lee BT, **Singhal D**. High-volume hydrodissection: Assessment of deep inferior epigastric perforator flap perfusion using laser doppler. *Ann Plast Surg.* 2015 Dec;75(6):652-6.
- Lee T, Patel N, Fanzio PM, Cheng MH, Lee BT, **Singhal D**. High volume hydrodissection for abdominally based free flaps: Preliminary results. *Microsurgery.* 2017 May;37(4):307-11.

Regional Referral Center for Lymphedema & Lymphatic Surgery at the University of Florida (2014-2016)

As the Director of Microsurgery at the University of Florida, I performed the first lymph node transplantation in the history of the University in March, 2014. I subsequently performed the first lymphovenous bypass at the University in March, 2015. Our center became recognized as a referral center for the treatment of chronic lymphedema and for procedures to prevent lymphedema in high risk patients. We were the first academic institution in the United States to provide both services.

Fluorescein Isothiocyanate for Lymphatic Imaging

Novel application and formulation for Fluorescein Isothiocyanate in Lymphatic Imaging. Allows for simultaneous intra-operative visualization and dissection of submillimeter vessels allowing lymphatic surgeons to now operate anywhere in the body. Adopted locally at BIDMC and the University of Florida (where I developed the concept) and presented regionally and nationally.

- Spiguel L, Shaw C, Katz A, Guo L, Chen HC, Lee BT, **Singhal D**. Fluorescein Isothiocyanate: A Novel Application for Lymphatic Surgery. *Ann Plast Surgery.* 2017 June;78(6S Suppl 5):S296-S298.

Regional Referral Center for Lymphedema & Lymphatic Surgery at BIDMC (2016-present)	The only referral center of its kind in New England. As the Director of Lymphatic Surgery, I performed the first lymphovenous bypass in the history of the institution in September, 2016.
In-Vivo Identification of Lymphatic Anatomy Variations	<p>Utilizing ICG lymphography to quantify and characterize upper extremity lymphatic anatomy variations that may predispose patients to the development of breast cancer related lymphedema</p> <ul style="list-style-type: none"> • Granoff M, Pardo J, Johnson AR, Fleischman A, Tillotson E, Thomson S, Lee BT, Singhal D. The Superficial and Functional Lymphatic Anatomy of the Upper Extremity. <i>Plast Reconstr Surg</i>. Accepted for Publication June, 2021. • Granoff M, Pardo J, Shillue K, Fleishman A, Teller P, Lee BT, James T, Singhal D. Variable Anatomy of the Lateral Upper Arm Lymphatic Channel: A Potential Anatomic Risk Factor for the Development of Breast Cancer Related Lymphedema. <i>Plast Reconstr Surg</i>. Accepted for Publication January, 2022.

Report of Education of Patients and Service to the Community

No presentations below were sponsored by 3rd parties/outside entities

Activities

01/2014	“Surgery for Obstructive Sleep Apnea”/UF Health Network Outreach Program Invited Speaker (The Villages, FL)
10/2014	“Broadening Horizons of Breast Conservation through Oncoplastic Surgery”/The UF Women’s Advantage Symposium Invited Speaker (Gainesville, FL)
10/2014	“Breast Reconstruction: Where We Are Today”/Alpha Kappa Delta Phi International Sorority Inc. Invited Speaker (Gainesville, FL)
05/2015	“Lymphedema – From Transplantation to Bypass”/Gainesville Breast Cancer Support Group Invited Speaker (Gainesville, FL)
05/2015	“Lymphedema and Lymphatic Surgery: What You Need to Know?!”/American Cancer Society Hope Lodge Invited Speaker (Gainesville, FL)
09/2019	“Breast Reconstruction for BRCA Mutation Carriers”/Looking Back and Facing Forward, Jospeh B Martin Conference Center Invited Speaker (Boston, MA)
05/2020	“Multi-Disciplinary Approach to Lymphedema: A Necessity Not a Luxury – Implications for the Lipedema Patient”, Lipedema Simplified Webinar Invited Speaker (Boston, MA)
07/2022	“An Update on Surgical Therapies for Lymphedema” Invited Speaker, National Lymphedema Network, Clinical Focus Group on Patient Support

Educational Material for Patients and the Lay Community:

Books, monographs, articles and presentations in other media (e.g., video and websites, movies, television and radio) that educate the public about medicine, health or biomedical sciences

2013	Interviewed by Dr. Anand Kuruvilla on <i>Cancer Talk Radio, FROG Docs with Dr. K</i>	WPLK800 & WIYD 1260 AM, 9 December.
2015	“Lifting the Weight of Lymphedema: Team Offers Relief for Patients Following Breast Cancer Surgery”	News and Notes Vol 11 No 4 pp10 (UF Health Internal Newsletter)
2016	“New Treatments for Lymphedema Available at BIDMC”	CBS News Boston; http://boston.cbslocal.com/2016/10/01/bidmc-breast-care-2016-new-treatments-for-lymphedema-available-at-bidmc/
2016	“New Treatments for Lymphedema Available at BIDMC”	Boston Magazine; http://www.bostonmagazine.com/sponsor-content/new-treatments-for-lymphedema-available-at-beth-israel-deaconess-medical-center/
2017	“Procedure Preventing Dangerous Complication for Breast Cancer Survivors?”	ABC News Boston Evening News Broadcast; http://www.wcvb.com/article/procedure-preventing-dangerous-complication-for-breast-cancer-survivors/10337450
2018	Ergonomics Education Rare in U.S. Surgical Training Programs	Reuters Health; February 12, 2018
2019	Developing a Lymphatic Surgery Program	24-hour Facebook Live Event December 15, 2019 Plastic & Reconstructive Surgery Journal
2020	The All But Forgotten Mascagni-Sappey Pathway: Lessons learned from Immediate Lymphatic Reconstruction	Facebook Live Event February 2, 2020 International Microsurgery Club/ Journal of Reconstructive Microsurgery
2020	The Lymphatic Center at Beth Israel Deaconess Medical Center	Facebook Live Event May 8, 2020 Lymphie Strong

Recognition:

2017 Boston Red Sox Medical All-Star Award

8/25/17, Pregame Ceremony, Jersey Presentation
Fenway Park, Boston, MA

Report of Scholarship

Peer-Reviewed Scholarship in print or other media:

Research Investigations

1. **Singhal D**, Witham TF, Germanwala A, Flickinger JC, Schiff D, Kondziolka D. Multi-modality affects longer term survival in patients with primary central nervous system lymphoma. *Can J Neurol Sci.* 2002 May;29(2):147-53.
2. Gruttadauria S, Doria C, Cintonino D, **Singhal D**, Verzaro R, Foglieni CS, Marino IR, Fung JJ. Outcomes in 139 cases of biliary tract reconstructions from a transplant surgery center. *Exp Clin Transplant.* 2003 Dec;1(2):73-8.
3. Koebbe C, **Singhal D**, Sheehan J, Flickinger JC, Horowitz M, Kondziolka D, Lunsford LD. Radiosurgery for dural arteriovenous fistulas. *Surg Neurol.* 2005 Nov;64(5):392-398.
4. **Singhal D**, Smorodinsky E, Guo, L. Differences in coagulation amongst Asians and Caucasians and the implication for reconstructive microsurgery. *J Reconstr Microsurg.* 2011 Jan;27(1):57-62.
5. Fanzio PM, **Singhal D**, Becker C. Combined radical excision and free microsurgical lymph node transfer for treatment of lower extremity lymphedema. *Eur J Plast Surg.* 2012 July;35(7):565-568.
6. **Singhal D**, Chen YC, Seselgyte R, Chen PKT, Chen YR. Craniofacial neurofibromatosis and tissue expansion: Long term results. *J Plast Reconstr Aesthet Surg.* 2012 July;65(7):956-959.
7. Hsu SS, **Singhal D**, Xia JJ, Gateno J, Lin CH, Huang CS, Lo LJ, Ko EW, Chen YR. Planning the surgery-first approach in surgical orthodontic treatment using a computer aided surgical simulation planning protocol. *J Taiwan Assoc Orthodon.* 2012 Aug;24(2):24-37.
8. Chen YA, **Singhal D**, Chen YR, Chen CT. Management of acute traumatic retrobulbar haematomas: a 10-year retrospective review. *J Plast Reconstr Aesthet Surg.* 2012 Oct;65(10):1325-30.
9. **Singhal D**, Chen YC, Fanzio PM, Lin CH, Chuang DC, Chen YR, Chen PKT. Role of free flaps in the management of craniofacial neurofibromatosis: Soft tissue coverage and attempted facial re-animation. *J Oral Maxillofac Surg.* 2012 Dec;70(12):2916-22.
10. **Singhal D**, Momoh A, Colakoglu S, Qureshi A, Tobias A, Lee B. Intra-muscular perforator dissection with the hydrodissection technique. *J Reconstr Microsurg.* 2013 Jan;29(1):45-9.
11. **Singhal D**, Chen YC, Chen YR, Chen PKT, Tsai YJ. Soft tissue management of orbitotemporal neurofibromatosis. *J Craniofac Surg.* 2013 Jan;24(1):269-72.
12. **Singhal D**, Hsu S, Lin CH, Chen YC, Chen YR. The trapezoid mortised genioplasty for obstructive sleep apnea: A further refinement of the mortised genioplasty. *Laryngoscope.* 2013 Oct;123(10):2578-82.
13. Xie S, **Singhal D**, Chen YR, Chen CT. Functional and radiologic outcomes of open reduction and internal fixation of condylar head and neck fractures using miniplate and microplate systems. *Ann Plast Surg.* 2013 Dec;71(Suppl 1):S61-6.

14. **Singhal D**, Chen YC, Tsai YJ, Yu CC, Chen HC, Chen YR, Chen PKT. Craniofacial neurofibromatosis: Treatment of the midface deformity. *J Craniomaxillofac Surg*. 2014 Jul;42(5):595-600.
15. Raza A, Cuenca AG, Tan S, **Singhal D**. Omental flaps for coverage of sacral or gluteal defects: A useful and potentially under-utilized tool. *Am Surg*. 2014 Jul;80(7):e202-4.
16. **Singhal D**, Fanzio PM, Lee ET, Chang CJ, Lee BT, Cheng MH. High volume hydrodissection – increasing the efficiency and safety of perforator dissection. *Ann Plast Surg*. 2014 Aug;73(2):219-24.
17. Sapountzis S, Ciudad P, Lim SY, Kiranatawat K, Nicoli F, Constantinides J, Wei MY, Sonmez TT, **Singhal D**, Chen HC. Modified Charles procedure and lymph node flap transfer for advanced lower extremity lymphedema. *Microsurgery*. 2014 Sep;34(6):439-47.
18. Sapountzis S, **Singhal D**, Rashid A, Ciudad P, Meo D, Chen HC. Lymph node flap based on the right transverse cervical artery as a donor site for lymph node transfer. *Ann Plast Surg*. 2014 Oct;73(4):398-401.
19. Samcam I, Rivera-Serrano C, Patel N, Mann R, Wong F, Werning JW, **Singhal D**. The inferior turbinate flap: A novel technique for prosthetic preparation of a total rhinectomy defect. *Int J Oral Maxillofac Surg*. 2015 Apr;44(4):424-6.
20. Prince N, Blackburn S, Murad G, Mast B, Sapountzis S, Chaw C, Werning JW, **Singhal D**. Vacuum-assisted closure therapy to the brain: A safe method for wound temporization in composite scalp and calvarial defects. *Ann Plast Surg*. 2015 Jun;74(Suppl 4):S218-21.
21. Fanzio PM, Cheng MH, Samcam I, Lin YT, Gorantla V, Lee BT, **Singhal D**. High-volume hydrodissection: Assessment of deep inferior epigastric perforator flap perfusion using laser doppler. *Ann Plast Surg*. 2015 Dec;75(6):652-6.
22. Ricci JA, Vargas CR, **Singhal D**, Lee BT. Shark attack-related injuries: Epidemiology and implications for plastic surgeons. *J Plast Reconstr Aesthet Surg*. 2016 Jan;69(1):108-14.
23. Tran BN, Singh M, **Singhal D**, Rudd R, Lee BT. Readability, complexity, and suitability of online resources for mastectomy and lumpectomy. *J Surg Res*. 2017 May;212:214-221.
24. Lee T, Patel N, Fanzio PM, Cheng MH, Lee BT, **Singhal D**. High volume hydrodissection for abdominally based free flaps: Preliminary results. *Microsurgery*. 2017 May;37(4):307-11.
25. Patel N, Pierson J, Lee T, Mast B, Estores I, **Singhal D**. Utilization and perception of integrative medicine among plastic surgery patients. *Ann Plast Surg*. 2017 May;78(5):557-561.
26. Tran BN, Singh M, Lee BT, Rudd R, **Singhal D**. Readability, complexity, and suitability of online lymphedema resources. *J Surg Res*. 2017 June;213:251-60.
27. Spiguel L, Shaw C, Katz A, Guo L, Chen HC, Lee BT, **Singhal D**. Fluorescein isothiocyanate: A novel application for lymphatic surgery. *Ann Plast Surgery*. 2017 June;78(6S Suppl 5):S296-S298.
28. Tran BN, Fadayomi A, Lin S, **Singhal D**, Lee BT. Cost analysis of postmastectomy reconstruction: A comparison of two staged implant reconstruction using tissue expander and acellular dermal matrix with abdominal based perforator free flaps. *J Surg Oncology*. 2017 Sep;116(4):439-47.
29. Ricci J, Epstein S, Momoh A, **Singhal D**, Lin S, Lee BT. Meta-analysis of implant-based breast reconstruction and timing of adjuvant radiation therapy. *J Surg Res*. 2017 Oct;218:108-16.

30. Tran BN, Angelo JP, Lee JH, Ruan QZ, Laurence RG, Choi HS, Lee BT, **Singhal D**. A pilot animal model for the surgical prevention of lymphedema: The power of optical imaging. *J Surg Res*. 2018 Jan; 221:285-92.
31. Hahamoff M, Gupta N, Munoz D, Lee BT, Clevenger P, Shaw C, Spiguel L, **Singhal D**. A lymphedema surveillance program for breast cancer patients reveals the promise of surgical prevention. *J Surg Res*. 2018 Feb 1. pii: S0022-4804(17)30662-5. [Epub ahead of print]
32. Epstein S, Sparer EH, Tran BN, Ruan QZ, Dennerlein JT, **Singhal D**, Lee BT. Prevalence of work-related musculoskeletal disorders among surgeons and interventionalists: A meta-analysis. *JAMA Surgery*. 2018 Feb 21;153(2):e174947.
33. Ruan QZ, Chen AD, Cohen JB, **Singhal D**, Lin SJ, Lee BT. Alternative metrics of scholarly output: The relationship between altmetrics, mendeley reader score, citations, and downloads in plastic and reconstructive surgery. *Plast Reconstr Surg*. 2018 Mar;141(3):801-809.
34. Ruan QZ, Cohen JB, Back Y, Chen AD, Doval AF, **Singhal D**, Fukudome EY, Lin SJ, Lee BT. Identifying sources of funding that contribute to scholastic productivity in academic plastic surgeons. *Ann Plastic Surg*. 2018 Apr;80(4 Suppl 4):S214-S218.
35. Ricci JA, Tran BN, Ruan QZ, Lin SJ, **Singhal D**, Lee BT. Comparing head and facial computed tomographic imaging in identifying operative facial fractures. *Ann Plast Surg*. 2018 Apr;80(4 Suppl 4):S219-S222.
36. Tran BN, Epstein S, **Singhal D**, Lee BT, Tobias AM, Ganor O. Gender affirmation surgery: A synopsis using American College of Surgeons national surgery quality improvement program and national inpatient sample databases. *Ann Plastic Surg*. 2018 Apr;80(4 Suppl 4):S229-S235.
37. Tran BN, Ruan QZ, Cohen JB, Kamali P, Doval A, Tobias AM, **Singhal D**, Lin SJ, Lee BT. Does hormone therapy use increase perioperative complications in abdominally based microsurgical breast reconstruction? *Plast Reconstr Surg*. 2018 Jun;141(6):805e-813e.
38. Ehanire T, **Singhal D**, Mast B, Leyngold M. Safety of microsurgery under loupes versus microscope: A head-to-head comparison of 2 surgeons with similar experiences. *Ann Plast Surg*. 2018 Jun;80(6S Suppl 6):S340-S342.
39. Ricci JA, **Singhal D**, Fukudome EY, Tobias AM, Lin SJ, Lee BT. Topical nitroglycerin for the treatment of intraoperative microsurgical vasospasm. *Microsurgery*. 2018 Jul;38(5):524-29.
40. Epstein S, Tran BN, Cohen JB, Lin SJ, **Singhal D**, Lee BT. Racial disparities in postmastectomy breast reconstruction: National trends in utilization from 2005 to 2014. *Cancer*. 2018 Jul 1;124(13):2774-2784.
41. Ruan QZ, Chen AD, **Singhal D**, Lee BT, Fukudome EY. Surgical Management of hidradenitis suppurativa: Procedural trends and risk factors. *J Surg Res*. 2018 Sep;229:200-207.
42. Tran BN, Chen AD, Kamali P, **Singhal D**, Lee BT, Fukudome EY. National perioperative outcomes of flap coverage for pressure ulcers from 2005-2015 using American College of Surgeons National Surgical Quality Improvement Program. *Arch Plast Surg*. 2018 Sep;45(5):418-424.
43. Epstein S, Tran BN, Capone AC, Ruan QZ, Lee BT, **Singhal D**. Work-related musculoskeletal disorders among plastic surgeons: A systematic review. *J Reconstr Microsurg*. 2018 Oct;34(8):553-562.
44. Johnson AR, **Singhal D**. Immediate Lymphatic Reconstruction. *J Surg Oncol*. 2018 Oct; 118(5):750-757

45. Doval AF, Lamelas AM, Daly LT, Tobias AM, Lin SJ, **Singhal D**, Dowlatshahi AS, Lee BT. Deep Inferior Epigastric Artery Perforator Flap Breast Reconstruction in Women with Previous Abdominal Incisions: A Comparison of Complication Rates. *Ann Plast Surg* 2018 Nov; 81(5): 560-564.
46. Tran BN, Celestin AR, Lee BT, Critchlow J, Tsai L, Toskich B, **Singhal D**. Quantifying lymph nodes during lymph node transplantation: The role of intraoperative ultrasound. *Ann Plastic Surg*. 2018 Dec;81(6):675-678.
47. Johnson AR, Doval AF, Egeler SA, Lin SJ, Lee BT, **Singhal D**. A multimetric evaluation of online Spanish health resources for lymphedema. *Ann Plast Surg*. 2019 Mar;82(3):255-261.
48. Epstein S, Tran BN, Capone AC, Ruan QZ, Fukudome EY, Ricci JA, Testa MA, Dennerlein JT, Lee BT, **Singhal D**. The current state of surgical ergonomics education in U.S. surgical training: A survey study. *Ann Surg*. 2019 Apr;269(4):778-784.
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