

# JASON C. GARDENIER, MD

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## EMPLOYMENT HISTORY

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8/2022 – present *Attending Surgeon*, Maine Plastic Surgery Center, Portland, ME

## EDUCATION/CERTIFICATION

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8/2007 – 5/2011 University of Virginia School of Medicine, Charlottesville, VA  
MD

8/2003 – 5/2007 College of William and Mary, Williamsburg VA  
BA in International Relations, *Summa Cum Laude*

## POST-GRADUATE TRAINING

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7/2019 – 6/2022 *Resident, Harvard Plastic Surgery Program* at Massachusetts General Hospital and Brigham and Women's Hospital, Boston, MA

6/2016 – 6/2019 *Resident*, Department of General Surgery  
New York-Presbyterian Hospital, Weill Cornell Medicine, New York, NY

6/2015 – 6/2016 *Burn Fellow*, Department of Surgery  
New York-Presbyterian Hospital, Weill Cornell Medicine, New York, NY

6/2013 – 6/2015 *Research Fellow*, Department of Surgery, Laboratory of Babak J. Mehrara, MD, FACS  
Memorial Sloan-Kettering Cancer Center, New York, NY

6/2011 – 6/2013 *Intern and Resident*, Department of General Surgery  
New York-Presbyterian Hospital, Weill Cornell Medicine, New York, NY

## INVITED ACADEMIC PRESENTATIONS

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6/15/2022 Harvard Plastic Surgery Grand Rounds. “Chief Resident Final Talk” Brigham and Women's Hospital, Boston, MA

3/2/2022 Harvard Plastic Surgery Grand Rounds. “Interesting Case: Free functional muscle transfer for brachial plexus injury” Brigham and Women's Hospital, Boston, MA

8/6/2021 Harvard Plastic Surgery Research Conference. “Pathogenesis and novel therapies for lymphedema” Brigham and Women's Hospital, Boston, MA

4/14/2021 Harvard Plastic Surgery Grand Rounds. “Interesting Case: two- stage flexor tendon reconstruction with intact FDS tendon” Brigham and Women's Hospital, Boston, MA

2/12/2020 Harvard Plastic Surgery Grand Rounds. “Interesting Case: Inflex finger pollicization for Blauth IIIB thumb hypoplasia” Brigham and Women's Hospital, Boston, MA

## RESEARCH EXPERIENCE

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H index: 17 (2022)  
Citations: 1026 (2022)

6/2013 – 6/2015	<i>Research Fellow</i> , Memorial Sloan-Kettering Cancer Center, Department of Surgery, Division of Plastic and Reconstructive Surgery, New York, NY Laboratory of Dr. Babak Mehrara, MD, FACS
6/2008 – 7/2008	<i>Research Fellow</i> , Hacettepe University Faculty of Medicine, Ankara, Turkey, Laboratory of Dr. Melih Babaoglu , MD

## FUNDING

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2014 – 2015	Plastic Surgery Foundation - Research Fellowship Grant Award: \$40,000 PI: Jason Gardenier. 100% Effort. Mentor: Babak J. Mehrara, MD, FACS.
2014 – 2015	Plastic Surgery Foundation - Pilot Research Grant Award: \$10,000 PI: Jason Gardenier. 100% Effort. Mentor: Babak J. Mehrara, MD, FACS.

## PATENTS

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2020	Patent for Compositions and Methods for Treatment of Edema, Application number: US10251871B2
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## HONORS/AWARDS

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2021 – 2022	Harvard Plastic Surgery Resident Representative – Executive Committee Member
2010 – 2011	Society of the Cincinnati Scholarship
2010 – 2011	University of Virginia Class of 1977 Scholarship
2009 – 2010	Turkish American Doctors Association of the Midwest (TADAM) Scholarship
2007	<i>Summa Cum Laude</i> , College of William and Mary
2003 – 2007	Dean's list (all semesters), College of William and Mary

## PROFESSIONAL ORGANIZATIONS

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2019 – Present	American Society of Plastic Surgeons (ASPS)
2011 – Present	American College of Surgeons (ACS)
2007 – Present	American Medical Association (AMA)

## PEER-REVIEWED PUBLICATIONS

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- Gardenier J**, Garg R, Mudgal C. Upper Extremity Tendon Transfers: A Brief Review of History, Common Applications, and Technical Tips. *Indian J of Plas Surg.* 2020 Aug; 53(2):177-190 PMID: 32884184
- Garcia Nores GD, Ly CL, Cuzzone, DA, Kataru RP, Hespe GE, Torrisi JS, Huang JJ, **Gardenier JC**, Savetsky IL, Nitti MD, Yu JZ, Rehal S, Mehrara BJ. CD4+ T cells are activated in regional lymph nodes and migrate to skin to initiate lymphedema. *Nature Communications.* 2018 May 17;9(1): 1970. PMID 29883802
- Gardenier JC**, Kataru RP, Hespe GE, Savetsky IL, Torrisi JS, Garcia Nores GD, Jowhar D, Nitti M, Schofield R, Carlow D, Mehrara BJ. Topical Tacrolimus for the Treatment of Secondary Lymphedema. *Nature Communications.* 2017 Feb 10;8: 14345. PMID: 28186091
- Huang JJ, **Gardenier JC**, Hespe GE, Garcia Nores GD, Kataru RP, Martinez-Corral I, Ortega S, Mehrara BJ. Lymph node transplantation decreases swelling and restores immune responses in a transgenic model of

5. **Gardenier JC**, Hespe GE, Kataru RP, Savetsky IL, Torrisi JS, Garcia Nores GD, Dayan JJ, Chang D, Zampell J, Martinez-Corral I, Ortega S, Mehrara BJ. Diphtheria toxin-mediated ablation of lymphatic endothelial cells results in progressive lymphedema. *JCI Insight*. 2016 Sep 22; 1(15):e84095. PMID 27699240
6. Nitti MD, Hespe GE, Kataru RP, Garcia Nores GD, Savetsky IL, Torrisi JS, **Gardenier JC**, Dannenberg AJ, Mehrara BJ. Obesity-induced lymphatic dysfunction is reversible with weight loss. *J Physiol*. 2016 Sep 13. PMID: 27619475
7. **Gardenier JC**, Chopra VK, Filicori F, Murphy J, Greenway Andrew, Gallagher JJ, Besey PQ, Houg A, Eachempati SR, Barie PS. Angioinvasive mold in the surgical and burn ICU: a case series and review of the literature. *Surgical Infections: Case Reports*. August 2016, 1(1): 72-78. doi:10.1089
8. Garcia Nores G, Cuzzone D, Albano N, Hespe G, Kataru R, Torrisi J, **Gardenier J**, Savetsky I, Aschen S, Nitti M, Mehrara B. Obesity but not high-fat diet impairs lymphatic function. *International Journal of Obesity*. 2016 Oct;40(10):1582-1590. PMID: 27200507
9. Loder S, Agarwal S, Sorkin M, Breuler C, Li J, Peterson J, **Gardenier J**, Hsieh HH, Wang SC, Mehrara BJ, Levi B. Lymphatic contribution to the cellular niche in heterotopic ossification. *Annals of Surgery*. 2016 Dec;264(6): 1174-1180. PMID: 26779981
10. Hespe GE, Kataru RP, Savetsky IL, Garcia Nores GD, Torrisi JS, Nitti MD, **Gardenier JC**, Zhou J, Yu JZ, Jones LW, Mehrara BJ. Exercise training improves obesity-related lymphatic dysfunction. *Journal of Physiology*. *J Physiol*. 2016 Aug 1;594(15):4267-82. PMID: 26931178
11. Henderson PW, Landford W, **Gardenier J**, Otterburn DM, Rohde CH, Spector JA. A simple, visually oriented communication system to improve postoperative care following microvascular free tissue transfer: development, results, and implications. *Journal of Reconstructive Microsurgery*. 2016 Jul;32(6):464-9. PMID: 26872024.
12. Torrisi J, Hespe G, Cuzzone D, Savetsky I, Nitti M, **Gardenier J**, Garcia Nores G, Jowhar D, Kataru R, Mehrara B. Inhibition of inflammation and iNOS improves lymphatic function in obesity. *Scientific Reports*. 2016 Jan 22;6:19817. PMID: 26796537
13. Savetsky IL, Albano NJ, Cuzzone DA, **Gardenier JC**, Torrisi JS, Garcia Nores GD, Nitti MD, Hespe GE, Nelson TS, Dixon JB, Mehrara BJ. Lymphatic dysfunction regulates contact hypersensitivity dermatitis in obesity. *Journal of Investigative Dermatology*. 2015 Nov; 135(11):2742-52. PMID: 26176761
14. Savetsky IL, Ghanta S, **Gardenier JC**, Torrisi JS, Garcia Nores GD, Hespe GE, Nitti MD, Kataru RP, Mehrara BJ. Th2 cytokines inhibit lymphangiogenesis. *PLoS One*. 2015 Jun 3;10(6):e0126908. PMID: 26039103
15. Ghanta S, Cuzzone D, Torrisi J, Albano N, Joseph W, Savetsky I, **Gardenier J**, Chang D, Zampell, Mehrara B. Regulation of Fibrosis by Macrophage Inflammation in Lymphedema. *American Journal of Physiology, Heart and Circulatory Physiology*. 2015 May 1;308(9):H1065-77. PMID: 25724493
16. Torrisi JS, Joseph WJ, Ghanta S, Cuzzone DA, Albano NJ, Savetsky IL, **Gardenier JC**, Skoracki R, Chang D, Mehrara BJ. Lymphaticovenous bypass decreases pathologic changes in upper extremity breast cancer-related lymphedema. *Lymphatic Research and Biology*. 2015 Mar, 13(1):60-8. PMID: 25521197
17. Joseph W, Aschen S, Ghanta S, Cuzzone D, Albano N, **Gardenier J**, Savetsky I, Torrisi J, Mehrara BJ. Sterile Inflammation after Lymph Node Transfer Improves Lymphatic Function and Regeneration. *Plastic and Reconstructive Surgery*. 2014 Jul;134(1):60-8. PMID: 25028818
18. Savetsky IL, Torrisi JS, Cuzzone DA, Ghanta S, Albano NJ, **Gardenier JC**, Joseph WJ, Mehrara BJ. Obesity increases inflammation and impairs lymphatic function in a mouse model of lymphedema. *American Journal of Physiology, Heart and Circulatory Physiology*. 2014 Jul 15;307(2):H165-72. PMID: 24858842
19. Cuzzone DA, Weitman ES, Albano NJ, Ghanta S, Savetsky IL, **Gardenier JC**, Joseph WJ, Torrisi JS, Bromberg JF, Olszewski WL, Rockson SG, Mehrara BJ. IL-6 regulates adipose deposition and homeostasis in lymphedema. *American Journal of Physiology, Heart and Circulatory Physiology*. 2014 May 15;306(10):H1426-34. PMID: 24633552

20. **Gardenier JC**, Sawyer RG, Sifri CD, Brayman K, Wispelway B, Bonatti H. Peritonitis caused by *Haemophilus parainfluenzae*, *Leifsonia aquatica*, and *Gordonia* spp. in a patient undergoing continuous ambulatory peritoneal dialysis. *Surgical Infections*. 2012 Dec;13(6):409-12. PMID: 23268614
21. Saad WE, Dasgupta N, Lippert AJ, Turba UC, Davies MG, Kumer S, **Gardenier JC**, Sabri SS, Park AW, Waldman DL, Schmitt T, Matsumoto, Angle JF. Extrahepatic pseudoaneurysms and ruptures of the hepatic artery in liver transplant recipients: endovascular management and a new iatrogenic etiology. *CardioVascular and Interventional Radiology*. 2013 Feb;36(1):118-27. PMID: 22648698
22. **Gardenier JC**, Sawyer RG, Bonatti H. *Granulicatella adiacens* bacteremia in an elderly trauma patient. *Surgical Infections*. 2011 Dec;12(3): 251-3. PMID: 21524203

## BOOK CHAPTERS

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1. **Gardenier J**, Driscoll D. "Open Eyebrow Correction." *Dekker Plastic Surgery*. Deckerx Med. Preliminarily published online 2020. Accessible at <https://www.deckerip.com/products/plastic-surgery/table-of-contents/>
2. Torrisi J, Savetsky I, **Gardenier J**, Mehrara BJ. "Physiology of Lymphatic System – Lymphangiogenesis." *Lymphedema: Current Approaches to Management and Treatment*. Saint Louis: Quality Medical Publishing. Submitted 9/3/2014. Publication pending.
3. Micheline S, Amore M, Tapia L, Pattarone G, Mercado D Torrisi J, Savetsky I, **Gardenier J**, Mehrara BJ, "Embryology." *Lymphedema: Current Approaches to Management and Treatment*. Saint Louis: Quality Medical Publishing. Submitted 9/3/2014. Accessible online at <https://plasticsurgerykey.com/chapter-4-embryology/>

## ABSTRACTS, PRESENTATIONS, & POSTERS

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1. **Gardenier J**, Huang JJ, Savetsky I, Hespe G, Garcia Nores G, Ly C, Kataru R, Mehrara BJ. A novel, transgenic, inducible animal model of scrotal lymphedema. [Presentation]. Northeastern Society of Plastic Surgeons. 34<sup>th</sup> Annual Meeting. September 8-10, 2017. Newport, RI.
2. **Gardenier J**, Kataru RP, Hespe GE, Savetsky IL, Torrisi JS, Garcia Nores G, Ly C, Jowhar DK, Nitti MD, Mehrara BJ. Topical tacrolimus for the treatment of lymphedema. [Presentation]. 62<sup>nd</sup> Annual Meeting. May 4-7, 2017. Durham, NC.
3. **Gardenier J**, Huang JJ, Kataru R, Savetsky I, Garcia Nores G, Yu J, Hespe G, Mehrara BJ. A novel, transgenic, inducible animal model of scrotal lymphedema. [Presentation]. American College of Surgeons Clinical Congress 2016; May 19-22. Washington, DC.
4. **Gardenier J**, Huang J, Kataru R, Savetsky I, Garcia Nores G, Yu J, Hespe G, Mehrara M. A novel, transgenic, inducible animal model of scrotal lymphedema. [Presentation]. Plastic Surgery Research Council. Annual Meeting 2016. May 19-22. New York, NY.
5. **Gardenier J**, Massand S, Hespe G, Savetsky I, Garcia Nores G, Yu J, Kataru R, Mehrara B. Increasing indocyanine green fluorescence with organic solvents for experimental lymphangiography. [Poster]. Plastic Surgery Research Council. Annual Meeting 2016. May 19-22. New York, NY.
6. **Gardenier J**, Chopra V, Greenway A, Eaton K, McDougal A, Gallagher J. A pilot study of blinded burn wound assessment using digital photography. [Poster]. In: 2016 American Burn Association Annual Meeting, May 3-6; Las Vegas, NV
7. **Gardenier JC**, Torrisi JS, Savetsky IL, Garcia Nores GD, Jowhar DK, Hespe GE, Nitti MD, Kataru RP, Mehrara BJ. Topical Tacrolimus for the Treatment of Lymphedema. [Presentation]. In: American Society for Reconstructive Microsurgery Annual Meeting 2016. January 16-19; Scottsdale, AZ.
8. **Gardenier JC**, Torrisi JS, Savetsky IL, Garcia Nores GD, Jowhar DK, Hespe GE, Nitti MD, Kataru RP, Mehrara BJ. Topical Tacrolimus for the Treatment of Lymphedema. [Presentation]. In: American College of Surgeons Clinical Congress 2015 October 4-8; Chicago, IL.

9. **Gardenier JC**, Farias-Eisner GT, Kataru RP, Savetsky IL, Torrissi JS, Garcia Nores GD, Nitti MD, Hespe GE, Mehrara BJ. A nonsurgical, lifelong animal model of lymphedema through toxin-mediated lymphatic ablation. [Presentation]. In: Plastic Surgery Research Council 60<sup>th</sup> Annual Meeting: 2015 May 14-16; Seattle, WA.
10. **Gardenier JC**, Farias-Eisner G, Cuzzone D, Savetsky IL, Ghanta S, Albano A, Joseph WJ, Torrissi J, Mehrara BJ. Inducible ablation of lymphatic vessels using Cre-lox technology. [Presentation]. In: American College of Surgeons Clinical Congress 2014: 2014 October 26-30; San Francisco, CA.
11. **Gardenier J**, Babaoglu M, Yasar U, Bozkurt A. Association of the aldehyde dehydrogenase 2\*2 (ADH2\*2) polymorphism and alcohol dependence in Turkish population. [Poster]. In: American Medical Student Association (AMSA) 59<sup>th</sup> National Convention: 2009 March 12-15; Washington, DC.

## INTERESTS

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1. History of Surgery
2. Foreign languages (Spanish, Russian, Turkish)
3. Distance Running