

## Yuen-Jong Liu, M.D.

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Place of Birth: New York City, NY

### Certification

2015            General Surgery            American Board of Surgery (Certificate #060418)

### Education

2004–2009    M.D.                                    Medicine                                    Yale University  
2000–2004    B.A., summa cum laude    Computer Science and Biochemical Sciences    Harvard University

### Postdoctoral Training

2017–            Fellow                                    Hand and Microsurgery                    Yale University  
2014–2017    Resident                                    Plastic Surgery                                University of North Carolina at Chapel Hill  
2009–2014    Resident                                    General Surgery                                Beth Israel Deaconess Medical Center  
2009–2014    Clinical Fellow                            Surgery    Harvard Medical School

### Professional Societies

2015–            American Society of Plastic Surgeons                                    Resident Member

### Peer Reviewed Publications

1. Lee, C.N., Deal, A.M., Huh, R., Ubel, P.A., **Liu, Y.-J.**, Blizard, L., Hunt, C., Pignone, M.P. Quality of patient decisions about breast reconstruction after mastectomy. *JAMA Surg.* 2017 May 3.
2. **Liu, Y.-J.**, Bynum, D.K., Hultman, C.S. Response to video capture of plastic surgery procedures using the GoPro HERO 3+: patient privacy and compliance. *Plast Reconstr Surg Glob Open.* 2015;3:e573.
3. Broer, P.N., Juran, S., Walker, M.E., Ng, R., Tanna, N., **Liu, Y.-J.**, Shah, A., Patel, A., Persing, J.A., Thomson, J.G. Aesthetic breast shape preferences among plastic surgeons. *Ann Plast Surg.* 2015 Jun;74(6):639–44.
4. **Liu, Y.-J.**, Deal, A., Pignone, M., Ubel, P., Burdick, L., Ollila, D.W., Lee, C. The quality of decisions about breast reconstruction. *Plast Reconstr Surg.* 2015 Apr;135(4):1236.
5. Broer, P.N., Juran, S., **Liu, Y.-J.**, Walker, M.E., Ng, R., Persing, J.A. The impact of geographic, ethnic, and demographic dynamics on the perception of beauty. *J Craniofac Surg.* 2014 Mar;25(2):e157–61.
6. Samra, S., Samra, F., **Liu, Y.-J.**, Sawh-Martinez, R., Persing, J.A. Optimal placement of a brachioplasty scar: a survey evaluation. *Ann Plast Surg.* 2013 Oct;71(4):329–32.
7. **Liu, Y.-J.**, Siracuse, J.J., Gage, T., Hauser, C.J. Phlegmonous gastritis presenting as portal venous pneumatosis. *Surg Infect.* 2013 Apr;14(2):221–4.
8. Broer, P.N., Buonocore, S., Morillas, A., **Liu, Y.-J.**, Tanna, N., Walker, M., Ng, R., Persing J.A. Nasal aesthetics: a cross-cultural analysis. *Plast Reconstr Surg.* 2012 Dec;130(6):843e–850e
9. **Liu, Y.-J.**, Thomson, J.G. Ideal anthropomorphic values of the female breast: correlation of pluralistic aesthetic evaluations with objective measurements. *Ann Plast Surg.* 2011 Jul;67(1):7–11.
10. **Liu, Y.-J.**, Hirsch, B.P., Shah, A.A., Reid, M.A., Thomson, J.G. Mild intra-operative hypothermia reduces free tissue transfer thrombosis. *J Reconstr Microsurg.* 2011 Feb;27(2):121–6.
11. Samra, S., Sawh-Martinez, R., **Liu, Y.-J.**, Samra, F., Persing, J.A. Optimal placement of brachioplasty scar: a

- survey evaluation. *Plast Reconstr Surg*. 2010 Oct;126(4S):77.
12. **Liu, Y.-J.**, Thomson, J.G. Reply. Re: Surface area measurement of the female breast: phase I. Validation of a novel optical technique. *Plast Reconstr Surg*. 2009 Dec;124(6):2194–5.
  13. **Liu, Y.-J.** Aesthetics of the Female Breast: Correlation of Pluralistic Evaluations with Volume and Surface Area. *Yale J Biol Med*. 2009 Dec;82(4):181–229. Sub-article 45.
  14. **Liu, Y.-J.**, Zheng, D., Balasubramanian, S., Carriero, N., Khurana, E., Robilotto, R., Gerstein, M.B. Comprehensive analysis of the pseudogenes of glycolytic enzymes in vertebrates: the anomalously high number of GAPDH pseudogenes highlights a recent burst of retrotranspositional activity. *BMC Genomics*. 2009 Oct 16;10(1):480.
  15. Thomson, J.G., **Liu, Y.-J.**, Restifo, R.J., Rinker, B.D., Reis, A. Surface area measurement of the female breast: phase I. Validation of a novel optical technique. *Plast Reconstr Surg*. 2009 May;123(5):1588–96.
  16. Balasubramanian, S., Zheng, D., **Liu, Y.-J.**, Fang, G., Frankish, A., Carriero, N., Robilotto, R., Cayting, P., Gerstein, M. Comparative analysis of processed ribosomal protein pseudogenes in four mammalian genomes. *Genome Biol*. 2009 Jan 5;10(1):R2.
  17. Yuan, G.-C., **Liu, Y.-J.**, Dion, M., Slack, M., Wu, L.F., Altschuler, S.J., Rando, O.J. Genome-scale identification of nucleosome positions in *S. cerevisiae*. *Science*. 2005 Jul 22;309(5734):626–30.

## Books and Chapters

1. **Liu, Y.-J.** The Theory and Practical Use of the Z-Incision for the Relief of Scar Contractures. *50 Studies Every Plastic Surgeon Should Know*. Boca Raton, FL: CRC Press; 2014.

## Local Invited Presentations

No presentations below were sponsored by outside entities.

- |      |  |
|------|--|
| 2013 | Hand Transplantation / Grand Rounds<br>Department of Surgery, Saint Vincent Hospital (Worcester, MA)   |
| 2009 | The Impact of Mild Intra-Operative Hypothermia on Free Flap Transfers / Residents' Research Day<br>Section of Plastic Surgery, Yale University |
| 2008 | Surface Area Measurement of the Female Breast / Residents' Research Day<br>Section of Plastic Surgery, Yale University                         |
| 2008 | Providing Surgical Care to the Poor and Disadvantaged / Grand Rounds<br>Department of Surgery, Yale University                                 |

## Regional Invited Presentations

No presentations below were sponsored by outside entities.

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|------|--|
| 2015 | Surgical Release of Spastic Hand Contractures / Annual Meeting<br>North Carolina Society for Surgery of the Hand                                     |
| 2009 | The Impact of Mild Intra-Operative Hypothermia on Free Flap Transfers / Annual Meeting<br>New England Society of Plastic and Reconstructive Surgeons |
| 2008 | Surface Area Measurement of the Female Breast / Annual Meeting<br>New England Society of Plastic and Reconstructive Surgeons                         |

## National Invited Presentations

No presentations below were sponsored by outside entities.

- |      |   |
|------|---|
| 2015 | Patient-Reported Outcomes Of Breast Reconstruction After Mastectomy: A Prospective, Longitudinal Study / Annual Meeting |
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- 2015 American Society of Plastic Surgeons  
The Quality of Decisions about Breast Reconstruction / Annual Meeting
- 2010 American Association of Plastic Surgeons  
Optimal Placement of Brachioplasty Scar: A Survey Evaluation / Annual Meeting  
American Society of Plastic Surgeons

## Honors and Prizes

- |           |   |   |
|-----------|---|---|
| 2008      | Completion of Microvascular Training Course   | Yale Section of Plastic Surgery                     |
| 2008      | Gustaf E. Lindskog International Travel Award | Yale Surgical Society                               |
| 2004      | Highest Honors for Undergraduate Thesis       | Depts. of Computer Science and Biochemical Sciences |
| 2004      | Phi Beta Kappa Society Membership             | Phi Beta Kappa                                      |
| 2004      | 1 <sup>st</sup> Place in the For-Profit Track | Harvard Entrepreneurial Contest                     |
| 2001–2002 | Member of Harvard Team 1, Regional Qualifier  | ACM International Collegiate Programming Contest    |
| 2001      | Finalist, Honored Scholars & Artists Program  | National Alliance for Excellence                    |
| 2000      | Presidential Scholar (Massachusetts)          | United States Presidential Scholars Program         |

## Funded Projects

- 2014–2016 Patient Preferences for Breast Reconstruction after Mastectomy  
National Cancer Institute K07 Award under Clara Lee, M.D.  
Investigator  
The goals were: (1) to evaluate the quality of decisions about breast reconstruction by assessing patient knowledge, concordance between preferences and treatment, and decision making processes; (2) to assess the accuracy of patients' preoperative predictions about their post-operative body image and well-being and the association between prediction accuracy and satisfaction with decisions; and (3) to assess the effects of breast reconstruction on quality of life and body image and the potential modification of these effects by preference concordance.
- 2008–2009 The Impact of Mild Intra-Operative Hypothermia on Free Flap Transfers  
Yale University School of Medicine Medical Student Research Fellowships  
Investigator  
The goal was to determine the relationship between core body temperature and success rates of free tissue transfers.
- 2007–2008 Surface Area Measurement of the Female Breast: Correlation with Breast Volume and Aesthetic Shape  
Yale University School of Medicine Medical Student Research Fellowships  
Investigator  
The goal was to determine the relationship between volume, surface area, and anthropomorphic measurements that results in an aesthetically pleasing shape, with the ultimate goal of optimizing patient satisfaction in cosmetic and reconstructive breast surgeries.
- 2007–2008 Surface Area Measurement of the Female Breast: Correlation with Breast Volume and Aesthetic Shape  
James G. Hirsch, M.D., Endowed Medical Student Research Fellowships  
Investigator  
As above.
- 2005 Analysis of the Pseudogenes of Glyceraldehyde-3-phosphate Dehydrogenase in Human and Mouse  
Yale University School of Medicine First-Year Medical Student Summer Research Fellowship  
Investigator  
The goals were to analyze syntenic regions between the human and mouse genomes, identify the pseudogenes that were present in the common ancestors of humans and mice, and extrapolate the past form of GAPDH.
- 2002–2005 An Oligonucleotide Microarray-Based Method for Determining Nucleosome Positioning in *S. cerevisiae*  
Harvard College Research Program / Bauer Center for Genomics Research, Harvard University  
Investigator

- The goals were to design and implement a microarray-based hidden Markov model (HMM) to determine nucleosome positions on the yeast genome, accounting for the measurement noise, potential cross-hybridization artifacts, consensus length of nucleosome-protected DNA, variability of linker lengths, and data from biological and technical replicates.
- 2002 Robustness of the *Drosophila* Segment Polarity Network  
Bauer Center for Genomics Research Summer Research Program, Harvard University  
Investigator  
The goal was to assess the robustness of the *Drosophila* segment polarity gene network using a model based on non-linear ordinary differential equations to simulate interactions between mRNAs and proteins.
- 2001 Open Mind Common Sense  
MIT Media Lab  
Investigator  
The goal was to develop programs to parse and process English sentences into a knowledge database for the Open Mind Common Sense project, seeking to teach computers “common sense” or seemingly obvious pieces of information that an average person knows and often takes for granted.

## Unfunded Projects

- 2014–2015 UNC Breast Reconstruction Network  
Administrator / Webmaster  
The goal was to create an online social network for breast cancer patients under patient-centered care principles. The website is designed to limit misinformation, to foster communication between patients and surgical care teams, to engage patients to learn about breast reconstruction, and to connect patients with mentors.
- 2011–2012 The Impact of Mild Intra-Operative Hypothermia on Free Flap Transfers  
Investigator  
The goal was to determine the relationship between core body temperature and success rates of free tissue transfers, using data from the Division of Plastic Surgery at Beth Israel Deaconess Medical Center to verify the results from Yale University.
- 2008–2009 Differences in Nasal Shape Preferences between People with Different Demographic Profiles  
Investigator  
The goal was to determine the differences in nose shape preferences among plastic surgeons and in the general population in different countries, as cultural differences must be considered for new techniques and aesthetic outcomes.
- 2008–2009 Optimizing the Aesthetics of the Brachioplasty Scar  
Investigator  
The goal was to determine the most aesthetically acceptable scar and contour from the most prevalent techniques available today: a short anterior scar, an extended anterior scar with possibly improved contour, and a posterior scar.

## Clinical Activities

|                  |                                |  |                  |
|------------------|--------------------------------|--|------------------|
| 2014–present     | Webmaster                      | Liu Surgery ( <a href="http://liusurgery.org">liusurgery.org</a> )                 |                  |
| 2014–2015        | Administrator / Webmaster      | UNC Breast Reconstruction Network  |                  |
| 2008–present     | Webmaster                      | Yale Hand Surgery ( <a href="http://yalehandsurgery.org">yalehandsurgery.org</a> ) |                  |
| 2008–present     | Webmaster                      | Hand Help Medical Mission ( <a href="http://handhelp.org">handhelp.org</a> )       |                  |
| 2010–2011        | Medical Staff                  | Boston Red Sox, Fenway Park  | 1–2 games/season |
| 2007–2009        | Microvascular Training Program | Section of Plastic Surgery, Yale University  | 8 hours/month    |
| 2008, Jan. 12–20 | Hand Surgery Mission           | Hands Help (Honduras)  | 12 hours/day     |

## Theses

Aesthetics of the Female Breast: Correlation of Pluralistic Evaluations with Volume and Surface Area.

Submitted to the Yale University School of Medicine in partial fulfillment of the requirements for the degree of Doctor of Medicine, Yale University School of Medicine, New Haven, Connecticut. 2009.

[http://www.liusurgery.org/pdfread.cgi?file=md\\_thesis](http://www.liusurgery.org/pdfread.cgi?file=md_thesis)

An Oligonucleotide Microarray-Based Method for Determining Nucleosome Positioning in *Saccharomyces cerevisiae*.

Presented to the Departments of Computer Science and Biochemical Sciences in partial fulfillment of the honors requirements for the degree of Bachelor of Arts, Harvard College, Cambridge, Massachusetts. 2004.

[http://www.liusurgery.org/pdfread.cgi?file=ba\\_thesis](http://www.liusurgery.org/pdfread.cgi?file=ba_thesis)