**CURRICULUM VITAE**

**FRANK H. LAU, MD, FACS**

**Current Title:** Associate Professor of Clinical Surgery

**Business Address:** Louisiana State University Health New Orleans

School of Medicine, Department of Surgery

1542 Tulane Avenue, Room 734

New Orleans, LA 70112

**Business Telephone**

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**Business email address:** [flau@lsuhsc.edu](mailto:flau@lsuhsc.edu)

**Citizenship:** United States of America

**Education**

**Undergraduate:** Bachelor of Science, Molecular Biochemistry & Biophysics

Yale College

New Haven, CT

09/1998 - 05/2001

**Graduate Medical:** Medical Doctorate

Research Honors

University of Michigan Medical School

Ann Arbor, MI

08/2002 - 06/2006

**Internship:** Harvard Combined Plastic Surgery Training Program

Brigham and Women’s Hospital

Boston, MA

06/2006 – 06/2007

**Residency:** Harvard Combined Plastic Surgery Training Program

Brigham and Women’s Hospital

Boston, MA

06/2007 – 06/2009

Research Fellow

Massachusetts General Hospital Center for Regenerative Medicine

Boston, MA

06/2009 – 06/2011

Harvard Combined Plastic Surgery Training Program

Brigham and Women’s Hospital

Boston, MA

06/2011 – 06/2014

**Certification:** American Board of Plastic Surgery;

MOC-PS 12/1/2015 – 12/31/2025

**Licensure and Certification:**

Commonwealth of Massachusetts, Board of Registration in Medicine

License #239356

April 1, 2009 – 2020

Louisiana State Board of Medical Examiners

License #MD.206892

May 8, 2014 – present

Texas Medical Board

License #R9094

September 21, 2018 – present

**Academic, Professional, and Research Appointments**

**Academic Appointments:**

Graduate Student Instructor, Department of Biology, University of Michigan Ann Arbor, Ann Arbor, MI

2003 - 2006

Associate Professor of Clinical Surgery, LSUHSC, School of Medicine, Department of Surgery, Division of Plastic & Reconstructive Surgery, New Orleans, LA

August 11, 2014 – present

Clinical Assistant Professor of Pathology, LSUHSC, School of Medicine, Department of Pathology, New Orleans, LA

September 1, 2014 - present

Associate Program Director, LSUHSC, School of Medicine, Department of Surgery, Division of Plastic & Reconstructive Surgery, New Orleans, LA

2015 – 2018

Adjunct Faculty of Plastic Surgery, Tulane Health Sciences Center, Department of Surgery, New Orleans, LA

2015 - present

Adjunct Faculty, LSU, Department of Biological and Agricultural Engineering, Baton Rouge, LA

2015 – present

Adjunct Faculty, Pennington Biomedical Research Center, Baton Rouge, LA  
 2017 – present

**Professional Appointments:**

Credit Derivatives Trading Analyst, UBS Warburg, Stamford, CT

2001 – 2002

Research Fellow, Summer Biomedical Research Program, University of Michigan

Medical School, Ann Arbor, MI, 2003

Intern, Anatomy Department, University of Michigan Medical School, Ann Arbor, MI, 2003

Graduate Research Associate, Section of Plastic Surgery, University of Michigan Medical School, Ann Arbor, MI, 2003 - 2006

Founder, Director, and Chief Operating Officer, Firecracker Inc., Boston, MA, 2008 - 2013

Founder and Director, Simple Milestones Inc., Boston, MA, 2014 – present

**Research Appointments:**

Visiting Researcher, Boston University, Department of Biomedical Engineering, Boston, MA, 2012 – 2014

**Membership in Professional Organizations:**

American Society of Plastic Surgery, *Member*

Southeastern Society of Plastic & Reconstructive Surgery, *Member*

American College of Surgeons, *Fellow*

**Awards and Honors:**

Graduation with Research Honors, University of Michigan Medical School, 2006

Outstanding Accomplishments by a Junior Faculty Member Award, LSUHSC, 2017

Academic Editor PLoS ONE, 2019

Best Paper, “Cost Analysis of a Tissue Engineering Approach to Limb Salvage”, Louisiana Chapter American College of Surgeons, 2019

Best Paper, “Transcriptional Characterization of a Pyoderma Gangrenosum Wound Pre- and Post-Treatment with Dehydrated Human Amnion/Chorion Membrane”, Medicine Research Day UMCNO, 2019

Best Poster, “Transcriptional Characterization of a Pyoderma Gangrenosum Wound Pre- and Post-Treatment with Dehydrated Human Amnion/Chorion Membrane”, Louisiana Chapter of American College of Physicians, 2019

Best Poster (2nd Place), “Prevalence of Anatomical Variations of the Radial Artery Encountered During Radial Forearm Flap Harvest: A Systematic Review and Meta-Analysis”, LSU Med Student Research Day, 2019

Gold Medal Award Finalist, “Health Disparities in Incisional Hernia Presentation: An Analysis of HCUP-NIS 2012-2014”, Southeastern Surgical Congress, 2020

**TEACHING EXPERIENCE AND RESPONSIBILITIES**

**Course/Clerkship/Residency or Fellowship/CME Directorships:**

Graduate Student Instructor, Department of Biology, University of Michigan Ann Arbor, Ann Arbor, MI

2003 - 2006

* Led a semester-long study section for undergraduate Intro to Cell Biology course for three semesters. Developed teaching materials, proctored exams, graded student work and exams, and provided mentorship.

Lecturer, Harvard Medical School Health Sciences and Technology Training Program (2010 - 2011)

* Led bi-annual, hour-long course teaching MD/PhD students basic suture techniques

Lecturer, Beth Israel Deaconess Medical Center General Surgery Residency (2013)

* Led course teaching general surgery residents proper surgical tissue handling and suture technique

Principal Investigator, Lau Tissue Engineering Lab (2014 – present)

* Teach and lead a 2-person full-time research team in both basic science and clinical research endeavors
* Train multiple medical students (2-5 per year) in both basic science and clinical research as appropriate to student goals

Associate Program Director, LSUHSC-NO Division of Plastic & Reconstructive Surgery (2015 – 2018)

* Develop annual resident rotation schedules, ensure all plastic surgery residents have active research / quality improvement projects
* Administrative contact for the LSUHSC-NO Plastic Surgery Interest Group

**Departmental/Interdisciplinary Teaching Conferences**

**Director, LSUHSC-NO Plastic & Reconstructive Surgery Journal Club**, (2015 – 2017)

* Secure sponsorship for monthly journal club attended by plastic surgery faculty, residents, medical students, and community plastic surgeons
* Develop the didactic curriculum for each month’s meeting

**Lecturer, LSUHSC-NO Plastic & Reconstructive Surgery Weekly Grand Rounds**, (2014 – present)

* Prepare 4-6 hour-long lectures per year on key plastic surgery topics for resident and faculty education (CME credits provided)

**RESEARCH AND SCHOLARSHIP**

**Grants and Contracts**

**Funded:**

1. Principal Investigator. A Microphysiologic Platform for Human Fat: Sandwiched White Adipose Tissue. 2014-2018, 30% effort, $300,000 direct costs
2. Co-Investigator. Cellular Scaffolds: A Novel Approach for the Production of Functional, Implantable Microvascular Networks. 2015-2016, 10% effort, $50,000 direct costs
3. Co-Investigator. Limb Salvage through Tissue Engineering: A Novel Treatment Modality using Decellularized Human Amniotic Chorionic Membrane 2015-2017, 10%, $75,000 direct costs
4. Principal Investigator. Mepitel Ag as a Novel Dressing for Acute Wounds and Skin Graft Securement. 2016-2017, 5%, $30,000 direct costs
5. Principal Investigator. Mimedx Limb Salvage Educational Grant. 2017-2019, 0%, $150,000
6. Principal Investigator. Hernia Prevention with AmnioFix. 2017-2018, 5%, $50,000 direct costs
7. Principal Investigator. Flex-HD Pliable and AlloDerm Comparative Study (Musculoskeletal Tissue Foundation Grant, 2017-18, $497,000 direct costs
8. Principal Investigator. Gentrix™ Surgical Matrix Plus Reinforcement for Iatrogenic Abdominal Wall Weakness. 2017-2018, 5%, $108,000 direct costs
9. Principal Investigator. Organogenesis RESPOND Trial. 2017-2018, 5%, $10,000 direct costs
10. Site Principal Investigator. Axogen SENSATION NOW Registry. 2018-2020, 1%, $150,000 direct costs.
11. Principal Investigator. Bisphenol A Generates Obesity through a Novel Mechanism: Mature Adipocyte Hypertrophy. (LSU Health Sciences Center, 2018 Bridge Grant, $75,000 direct costs)
12. Co-Principal Investigator. Siah2 as a Novel Factor in Liposarcoma Development and Metastasis. (LSU Biomedical Collaborative Research Program, 2018-19, $75,000 direct costs)
13. Principal Investigator. Transcriptional Characterization of a Chronic Pyoderma Gangrenosum Wound Pre- and Post-Treatment with Dehydrated Human Amnion/Chorion Membrane. (LSUHSC Resident Research Opportunities Program, 2018-2019, $7,500 direct costs)
14. Principal Investigator. Mechanisms Linking Obesity and Breast Cancer: A Study Using a Novel, 3-Dimensional Model of Breast Cancer-Breast Parenchyma Interactions. (Southeastern Society of Plastic & Reconstructive Surgeons, 2019, $15,000 direct costs)
15. Principal Investigator. A Prospective Trial Evaluating the Effects of SkinTE™ in the Treatment of Complex Traumatic Wounds. (PolarityTE, 2019, $73,819 direct costs)
16. Principal Investigator. Prophylaxis of Incisional Hernia with Placenta-Derived Tissues. (LSU Leveraging Innovation for Technology Transfer (LIFT2) Grant, Grant Number: HSCNO-2020-LIFT-001, $31,504)
17. Co-Principal Investigator. Mechanisms of Health Disparities in Obese Breast Cancer. (Louisiana Biomedical Research Network 2020, $100,000)
18. Principal Investigator. A Prospective, Double-Blinded, Randomized Controlled Trial of Dehydrated Human Amniotic-Chorionic Membrane for Incisional Hernia Prophylaxis. (LSUHSC Research Enhancement Program, 2020-2022, $74,787)

**Pending funding:**

1. Principal Investigator. Bisphenol A Generates Obesity through a Novel Mechanism: Mature Adipocyte Hypertrophy. (NIH PA-18-344, 2019-2021, $250,000 direct costs)
2. Co-Principal Investigator. A Novel, 3-Dimensional Model of Breast Cancer-Breast Parenchyma Interactions. (LaCATS Multi-Institutional Grant, 2019-2021, $200,000 direct costs)
3. Principal Investigator. Mesenchymal Stem Cell Exosomes for Incisional Hernia Prophylaxis. (Direct Biologics Investigator Initiated Study Proposal. 2019-2020, $75,000 direct costs)

**Non-funded applications (last three years):**

1. Principal Investigator. Limb Salvage through Tissue Engineering: A Novel Treatment Modality using Decellularized Human Amniotic Chorionic Membrane (GRANT12058787, DoD Congressionally Directed Medical Research Programs, 2016-21, $5,000,000 direct costs)
2. Principal Investigator. Culturing Primary Human Adipose Tissue to Evaluate White Adipose Tissue “Browning” as an Anti-Obesity Strategy (1DP2OD022346, NIH Director’s Innovator Award, 2016-21, $1,500,000 direct costs)
3. Principal Investigator. A Microphysiologic Platform for Human Obesity: Sandwiched White Adipose Tissue (Pennington COBRE, 2017-2019, $75,000 direct costs)
4. Prinicipal Investigator. A Novel Microphysiologic Platform for Studying Human Obesity: Sandwiched White Adipose Tissue. (PA-16-160, NIH Research Project Grant, 2017-2022, $1,250,000 direct costs)
5. Prinicipal Investigator. Mechanisms Linking Renin-Angiotensin System Overactivation and Obesity: Application of a Novel "Fat-on-a-Chip" Model. (PA-16-160, NIH Research Project Grant, 2017-2022, $1,250,000 direct costs)
6. Principal Investigator. Sandwiched White Adipose Tissue: A Novel "Fat-on-a-chip" Model of Obesity in Cardiovascular Disease. (American Heart Association Scientist Development Grant, 2017-2020, $231,000 direct costs)
7. Principal Investigator. Causation in Renin-Angiotensin Overactivation and Obesity: Application of a Novel "Fat-on-a-Chip" Model. (American Heart Association Grant-in-Aid Grant 2017-2019, $154,000 direct costs)
8. Principal Investigator. Accelerating Nerve Recovery Time in VCA through Distraction Neurogenesis. (W81XWH-16-RTRP-CA, Department of Defense Reconstructive Transplant Research Program, 2017-2019, $200,000 direct costs)
9. Principal Investigator. Interventions to reduce HIPAA non-compliance in plastic surgery. (Plastic Surgery Foundation, 2017-2018, $50,000 direct costs)
10. Principal Investigator. Limb Salvage through Tissue Engineering: A Novel Treatment Modality using Decellularized Human Amniotic Chorionic Membrane (W81XWH-17-PRORP-CTA, DoD Congressionally Directed Medical Research Programs, 2018-21, $3,000,000 direct costs)
11. Principal Investigator. Limb Salvage through Tissue Engineering: A Novel Treatment Modality using Decellularized Human Amniotic Chorionic Membrane (Medical Technology Enterprise Consortium, 2018-21, $3,000,000 direct costs)
12. Principal Investigator. Tissue Engineering Limb Salvage. (LSU Health Sciences Center – New Orleans Consortium for Health Transformation, 2017-2019, $250,000 direct costs)
13. Principal Investigator. Molecular Regulation of Bisphenol A-Induced Obesity. (Pennington Biomedical Research Center, Nutrition and Obesity Research Center 2018 Pilot & Feasibility Grant, $30,000 direct costs)
14. Principal Investigator. Bisphenol A Induces Mature Adipocyte Hypertrophy: A Novel Mechanism of White Adipose Tissue Remodeling. (Pennington Biomedical Research Center, COBRE 2018 Pilot & Feasibility Grant, $30,000 direct costs)
15. Principal Investigator. Molecular Regulation of Bisphenol A Induced Obesity and Adipose Tissue Remodeling. (2018 Veterans Affairs Career Development Award CDA-2, $250,000 direct costs)
16. Co-Investigator. Study on Emergency Department follow up for General Surgery Discharge Diagnosis in an Underserved Population in a Safety Net Hospital. (2018 Robert Wood Johnson Foundation Evidence for Action Program)
17. Co-Investigator. Autologous Dermal Hernia Repair Study. (Avita Medical Investigator Initiated Study Proposal. 2019-2020, $70,000 direct costs)
18. Co-Investigator. Use of Autologous Stromal Vascular Fraction Cells Therapy for Pressure Ulcers. (FY19 Peer Reviewed Medical Research Program, 2020-2022, $2,600,000 direct costs)
19. Principal Investigator. Tailoring a Novel Limb Salvage Technique for Prolonged Field Care: a Randomized Controlled Trial. (FY19 Defense Medical Research and Development Program - Multi-Domain Lifesaving Trauma Innovations Award, 2019-2021, $2,500,000 total costs)

**Journal Publications**

**Refereed:**

1. **Lau FH**, Chung KC. Silas Weir Mitchell, MD: the physician who discovered causalgia. Journal of Hand Surgery. 2004;29(2):181-187.
2. Chung KC, **Lau FH**, Kotsis SV, Kim HM. Factors Influencing Residents: Decisions to Pursue a Career in Hand Surgery: A National Survey. Journal of Hand Surgery. 2004;29(4):738-747.
3. **Lau FH**, Chung KC. Survey research: a primer for hand surgery. Journal of Hand Surgery. 2005;30(5):893.e1-893.e11.
4. Chung KC, Davis EN, **Lau FH,** Kotsis SV. A cost/utility analysis of open reduction and internal fixation versus cast immobilization for acute nondisplaced mid-waist scaphoid fractures. Plastic & Reconstructive Surgery. 2006;117(4):1223-1225.
5. **Lau FH**, Chung KC. William Darrach, MD: His life and his contribution to hand surgery. Journal of Hand Surgery. 2006;31(7):1056-1060.
6. Kotsis SV, **Lau FH,** Chung KC. Responsiveness of the Michigan Hand Outcomes Questionnaire and physical measurements in outcome studies of distal radius fracture treatment. Journal of Hand Surgery. 2007;32(1):84-90.
7. **Lau FH**, Ahfeldt T, Osafune K, Akutsu H, Cowan CA. Induced pluripotent stem (iPS) cells: an up-to-the-minute review. F1000 Biology Reports. 2009;1(84).
8. Warren L, Manos PD, Ahfeldt T, Loh YH, Li H, **Lau F**, Ebina W, Mandal PK, Smith ZD, Meissner A, Daley GQ, Brack AS, Collins JJ, Cowan C, Schlaeger TM, Rossi DJ. Highly efficient reprogramming to pluripotency and directed differentiation of human cells with synthetic modified mRNA. Cell Stem Cell. 2010;7(5):618-30.
9. Schinzel RT, Ahfeldt T, **Lau FH**, Lee YK, Cowley A, Shen T, Peters D, Lum DH, Cowan CA. Efficient culturing and genetic manipulation of human pluripotent stem cells. PLoS One. 2011;6(12):e27495.
10. Rigamonti A, Brennand K, **Lau F**, Cowan CA. Rapid cellular turnover in adipose tissue. PLoS One. 2011;6(3):e17637.
11. **Lau FH**, Deo RC, Mowrer G, Caplin J, Ahfeldt T, Kaplan A, Ptaszek L, Walker JD, Rosengard BR, Cowan CA. Pattern specification and immune response transcriptional signatures of pericardial and subcutaneous adipose tissue. PLoS One. 2011;6(10):e26092.
12. Ahfeldt T, Schinzel RT, Lee YK, Hendrickson D, Kaplan A, Lum DH, Camahort R, Xia F, Shay J, Rhee EP, Clish CB, Deo RC, Shen T, **Lau FH,** Cowley A, Mowrer G, Al-Siddiqi H, Nahrendorf M, Musunuru K, Gerszten RE, Rinn JL, Cowan CA. Programming human pluripotent stem cells into white and brown adipocytes. Nat Cell Biol. 2012;14(2):209-19.
13. Mou H, Zhao R, Sherwood R, Ahfeldt T, Lapey A, Wain J, Sicilian L, Izvolsky K, **Lau FH**, Musunuru K, Cowan C, Rajagopal J. Generation of Multipotent Lung and Airway Progenitors from Mouse ESCs and Patient-Specific Cystic Fibrosis iPSCs. Cell Stem Cell. 2012;10(4):385-97.
14. **Lau FH**, Xia F, Kaplan A, Cerrato F, Greene AK, Taghinia A, Cowan CA, Labow BI. Expression analysis of macrodactyly identifies pleiotrophin upregulation. PLoS One. 2012;7(7):e40423.
15. **Lau FH**, Katona L, Rosen J, Koop C. Computer Science: The Third Pillar of Medical Education. Creative Education. 2012;3(6):807-810.
16. **Lau FH,** Pomahac B. Wound healing in acutely injured fascia. Wound Repair Regen. 2014;22(Suppl 1):14-7.
17. Madison JM, Zhou F, Nigam A, Hussain A, Barker DD, Nehme R, van der Ven K, Hsu J, Wolf P, Fleishman M, O'Dushlaine C, Rose S, Chambert K, **Lau FH**, Ahfeldt T, Rueckert EH, Sheridan SD, Fass DM, Nemesh J, Mullen TE, Daheron L, McCarroll S, Sklar P, Perlis RH, Haggarty SJ. Characterization of bipolar disorder patient-specific induced pluripotent stem cells from a family reveals neurodevelopmental and mRNA expression abnormalities. Mol Psychiatry. 2015 Jun;20(6):703-17. PubMed PMID: 25733313; PubMed Central PMCID: PMC4440839.
18. Tan KT, Manduskuie N, Menjivar L, **Lau FH**, Pribaz JJ. An efficient, low pressure fat aspiration system for lipofilling procedures. J Plast Reconstr Aesthet Surg. 2015 Mar;68(3):442-3. PubMed PMID: 25465769.
19. Sillah NM, Ibrahim AM, **Lau FH**, Shah J, Medin C, Lee BT, Lin SJ. The New Accreditation Council for Graduate Medical Education Next Accreditation System Milestones Evaluation System: What Is Expected and How Are Plastic Surgery Residency Programs Preparing? Plast Reconstr Surg. 2015 Jul;136(1):181-7. doi: 10.1097/PRS.0000000000001368. PubMed PMID: 25829159.
20. Thomas VA, Rugeley PB, **Lau FH**. Digital Photograph Security: What Plastic Surgeons Need to Know. Plast Reconstr Surg. 2015 Nov;136(5):1120-6. doi: 10.1097/PRS.0000000000001712. PubMed PMID: 26505710.
21. Thomas VA, Rugeley PB, **Lau FH**. Digital Photo Security: What Plastic Surgeons Need to Know. Plast Reconstr Surg. 2015 Oct;136(4 Suppl):125. doi: 10.1097/01.prs.0000472437.55237.67. PubMed PMID: 26397647.
22. Torabi R, Strong AL, Hogan ME, Dupin CL, Tessler O, **Lau FH**. Bone and Tendon Coverage via Dehydrated Human Amniotic Chorionic Membrane and Split Thickness Skin Grafting. J Reconstr Microsurg Open. 2016 Jan; (eFirst).
23. **Lau FH**, Sinha I, Jiang W, Lipsitz SR, Eriksson E. A Time Study of Plastic Surgery Residents. Ann Plast Surg. 2016 Mar 5. PubMed PMID: 26954746.
24. Bisgaard E, Tarakji M, **Lau F**, Riker A. Neglected skin cancer in the elderly: a case of basosquamous cell carcinoma of the right shoulder. J Surg Case Rep. 2016 Aug 17;2016(8). PubMed PMID: 27534889.
25. Steele TN, Pribaz JJ, **Lau FH**. The Sternum-Nipple Distance is Double the Nipple-Inframammary Fold Distance in Macromastia. Ann Plast Surg. 2017 Jun;78(6S Suppl 5):S347-S350. PubMed PMID: 28403022.
26. Lim S, Atwi N, Long SA, Toshav A, **Lau FH**. Variations in the anterolateral thigh flap's vascular anatomy in African Americans. J Recon Micro. 2017 Oct. PubMed PMID: 28987081
27. **Lau FH**, Vogel K, Luckett JP, Hunt M, Meyer A, Rogers CL, Tessler O, Dupin CL, St Hilaire H, Islam KN, Frazier T, Gimble JM, Scahill S. Sandwiched White Adipose Tissue: A Microphysiological System of Primary Human Adipose Tissue. Tissue Eng Part C Methods. 2018 Jan. PubMed PMID: 29141507.
28. Scahill SD, Hunt M, Rogers CL, **Lau FH**. A Microphysiologic Platform for Human Fat: Sandwiched White Adipose Tissue. J Vis Exp. 2018 Aug 15;(138). Pubmed PMID: 30176000.
29. Lim S, Rogers LK, Tessler O, Mundinger GS, Rogers C, **Lau FH**. Phentermine: A Systematic Review for Plastic and Reconstructive Surgeons. Ann Plast Surg. 2018 Oct;81(4):503-507. Pubmed PMID: 30204622.
30. **Lau FH**, Greiffenstein P, Hodgdon IA, Islam KN, Short CA, Yoo A, Birke L. Incisional Hernia Prevention Using Dehydrated Amniotic Membrane in Rat Model. J Am Coll Surg. 2018 Oct; 227(4), Supplement 2, Page e20. DOI: <https://doi.org/10.1016/j.jamcollsurg.2018.08.049>
31. Lam JS, Simpson BK, **Lau FH**. Health Insurance Portability and Accountability Act Noncompliance in Patient Photograph Management in Plastic Surgery. Ann Plast Surg. 2019 Jan 14. doi: 10.1097/SAP.0000000000001760.
32. Rebello CJ, Greenway FL, **Lau FH**, Lin Y, Stephens JM, Johnson WD, Coulter AA. Naringenin Promotes Thermogenic Gene Expression in Human White Adipose Tissue. Obesity. 2019 Jan;27(1):103-111. doi: 10.1002/oby.22352
33. Dibbs R, Culo B, Tandon R, Hilaire HS, Shellock FG, **Lau FH**. Reconsidering the "MR Unsafe" breast tissue expander with magnetic infusion port: A case report and literature review. Arch Plast Surg. 2019 Apr 9. doi: 10.5999/aps.2018.01431.
34. Mulloy C, Hoffman RD, Danos DM, **Lau FH**. Health Disparities in Incisional Hernia Presentation: An Analysis of HCUP-NIS years 2012-2014. Am Surg. 2020 July. DOI: 10.1177/0003134820933574
35. Hodgdon I, Cook M, Yoo A, Rajo M, Dooley D, Haydel A, Dogar S, Greiffenstein P, Morrison J, **Lau FH**, Paige J. The Use of Autologous Fenestrated Cutis Grafts in Hernia Repair: Surgical Outcomes and Cost Analysis of 97 Consecutive Patients. Am Surg. 2020 July. DOI: 10. 1177/ 0003 1348 20933261.
36. Bender R, McCarthy M, Brown T, Bukowska J, Smith S, Abbott RD, Kaplan DL, Williams C, Wade JW, Alarcon A, Wu X, **Lau FH**, *et al*. Human Adipose Derived Cells in Two- and Three-Dimensional Cultures: Functional Validation of an In Vitro Fat Construct. Stem Cells Intl. 2020 June 10. Article ID 4242130. 2020 July. doi: 10.1155/2020/4242130
37. Hoffman RD, Danos DM, Lin SJ, **Lau FH**, Kim PS. Prevalence of Accessory Branches and Other Anatomical Variations in the Radial Artery Encountered during Radial Forearm Flap Harvest: A Systematic Review and Meta-Analysis. J Reconstr Microsurg. doi: 10.1055/s-0040-1713600.
38. Yoo A, Short S, Lopez JM, Takawira C, Islam KN, Greiffenstein P, Hodgdon I, **Lau FH**. Dehydrated Human Amniotic-Chorionic Membrane Sheets Prevent Incisional Hernia Formation: A Double-Blinded, Randomized Controlled Trial in a Validated Animal Model. *Submitted*.
39. **Lau FH**, Torabi R, McKendrick A, Patterson C, Hui A, Maddox SS. Tumescent-based radical excision of hidradenitis suppurativa: a curative, safe, and fast technique. *Submitted*.

**Inventions and Patents:**

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| --- | --- | --- | --- |
| Patent Number | Title or Brief Description of Technology | Provisional Years | Final Patent Awarded |
| 1. US 62/119,024 | METHODS FOR TREATING RADIATION-INDUCED WOUNDS | 2015-16 | No |
|  | Surgical Technique: Tissue Engineering Limb Salvage (Method for Preventing Amputations) |  | Developed 2015 |
|  | Surgical Technique: Tumescent-Based Radical Excision for Hidradenitis Suppurativa |  | Developed 2017 |

**Scientific Presentations**

**Local:**

1. 2004 A national survey on factors influencing residents' decisions to pursue a career in hand surgery, Moses Gunn Annual Research Conference [Poster Presentation]
2. 2008 HER2/neu Positivity in T1a,bN0 Breast Carcinoma, Beth Israel Deaconess Medical Center [Plenary Presentation]
3. 2012 Engineering Vascularized Dermal Substitutes, Boston University Department of Biomedical Engineering [Plenary Presentation]
4. 2015 Organotypic Culture of White Adipose Tissue: A Novel Approach for Long-term Cell Culture of Primary Human Adipose Tissue, LSUHSC-NO Dept of Physiology [Plenary Presentation]
5. 2015 Digital Photo Security: What Plastic Surgeons Need to Know, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
6. 2015 Ethnicity and Variations in Anterolateral Thigh Vascular Supply, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
7. 2015 Optimizing Poly(N-isopropylacrylamide) for 3D Cell Cullure, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
8. 2015 Organotypic Culture of White Adipose Tissue, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
9. 2015 Assessing Fat Graft Viability with Modern Molecular Techniques, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
10. 2015 Digital Photo Security: What Plastic Surgeons Need to Know, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
11. 2015 Ethnicity and Variations in Anterolateral Thigh Vascular Supply, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
12. 2015 Optimizing Poly(N-isopropylacrylamide) for 3D Cell Cullure, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
13. 2015 Organotypic Culture of White Adipose Tissue, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
14. 2015 Assessing Fat Graft Viability with Modern Molecular Techniques, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
15. 2016 Sandwiched White Adipose Tissue: A Novel Approach for Long-term Cell Culture of Primary Human Adipose Tissue, LSUHSC-NO Dept of Physiology [Plenary Presentation]
16. 2016 “Sandwiched White Adipose Tissue: A Novel Microphysiological System for Human Adipose Tissue”, LSUHSC Dean’s Seminar Series [Plenary Presentation]
17. 2016 Assessing the Viability of SWAT Cultured Human Adipose Tissue within an Animal Model, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
18. 2016 Reducing Morbidity and Improving Outcomes in Limb Salvage through Decellularized Human Amniotic Chorionic Membrane, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
19. 2017 “Work-Life Balance”, CHNOLA Department of Pediatrics Seminar Series [Plenary Presentation]
20. 2018 “Glucose Uptake in Cultured Primary Human Adipose Tissue”, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
21. 2018 “Siah2 as a Novel Factor in Liposarcoma Development and Metastasis”, LSU Biomedical Collaborative Research Program Annual Symposium [Plenary Presentation]
22. 2018 “Transcriptional Characterization of a Pyoderma Gangrenosum Wound Pre- and Post-Treatment with Dehydrated Human Amnion/Chorion Membrane”, LSUHSC Medical Student Research Day [Poster Presentation]
23. 2019 “Transcriptional Characterization of a Pyoderma Gangrenosum Wound Pre- and Post-Treatment with Dehydrated Human Amnion/Chorion Membrane”, Medicine Research Day UMCNO [Poster Presentation]
24. 2019 “Cost Analysis of a Tissue Engineering Approach to Limb Salvage”, Louisiana Chapter, American College of Surgeons [Plenary Presentation]
25. 2019 “Tumescent-based Radical Excision of Hidradenitis Suppurativa: A Safe, Fast, and Efficacious Technique”, Louisiana Chapter, American College of Surgeons [Plenary Presentation]
26. 2019 “Transcriptional Characterization of a Pyoderma Gangrenosum Wound Pre- and Post-Treatment with Dehydrated Human Amnion/Chorion Membrane”, Louisiana Chapter, American College of Physicians [Poster Presentation]
27. 2019 “The Role of Free Tissue Transfer in the Reconstruction of Ischial Pressure Ulcer and Reduction of Recurrence Rate”, Louisiana Chapter, American College of Physicians [Poster Presentation]
28. 2019 “Tissue Engineering Limb Salvage: A Cost-Effective Treatment Modality”, LSU Quality Improvement Forum [Plenary Presentation]
29. 2019 “Dehydrated Human Amniotic-Chorionic Membrane Sheets Prevent Incisional Hernia Formation”, LSU Quality Improvement Forum [Poster Presentation]
30. 2019 “Prevalence of Anatomical Variations of the Radial Artery Encountered During Radial Forearm Flap Harvest: A Systematic Review and Meta-Analysis”, LSU Med Student Research Day [Poster Presentation]
31. 2019 “Nasal Venous Malformation with Intracranial Communication: Presentation, Management, and Review of the Literature”, LSU Med Student Research Day [Poster Presentation]
32. 2020 “Health Disparities in Incisional Hernia Repair: An Analysis of HCUP-NIS 2012-2014”, Louisiana Chapter, American College of Surgeons [Plenary Presentation]
33. 2020 “Ubiquitin Ligase SIAH2: A Novel Regulator of Well-Differentiated vs. Dedifferentiated Liposarcomas”, Louisiana Chapter, American College of Surgeons [Plenary Presentation]
34. 2020 “Free Tissue Transfer in Pressure Ulcer Reconstruction”, Louisiana Chapter, American College of Surgeons [Plenary Presentation]
35. 2020 “Mesenchymal Exosomes for Complete Closure of a Recurrent Ischial Ulcer”, Louisiana Chapter, American College of Surgeons [Poster Presentation]
36. 2020 “Prevalence of Anatomical Variations of the Radial Artery Encountered During Radial Forearm Flap Harvest: A Systematic Review and Meta-Analysis”, Louisiana Chapter, American College of Surgeons [Poster Presentation]
37. 2020 “Lipid Uptake in Breast Cancer Cells Cultured in Human Breast Tissue”, LSUHSC-NO Quality Improvement Forum [Poster Presentation]
38. 2020 “Health Disparities in Incisional Hernia Repair: An analysis of HCUP-NIS 2012-2014”, LSUHSC-NO Quality Improvement Forum [Poster Presentation]

**National:**

1. 2007 "The Deep Inferior Epigastric Perforator flap learning curve", New England Society of Plastic and Reconstructive Surgeons [Plenary Presentation]
2. 2004 “A national survey on factors influencing residents' decisions to pursue a career in hand surgery”, American Association of Plastic Surgeons [Plenary Presentation]
3. 2005 “Development of web based learning modules for radiological anatomy”, American Association of Anatomists [Poster Presentation]
4. 2014 “High Efficiency Allows Plastic Surgery Trainees to Maintain Operative Experience within the Limitations of an 80-Hour Work Week”, American Association of Plastic Surgeons [Plenary Presentation]
5. 2015 “Digital Photo Security: What Plastic Surgeons Need to Know”, Southeastern Society of Plastic Surgeons [Poster Presentation]
6. 2015 “Digital Photo Security: What Plastic Surgeons Need to Know”, American Society of Plastic Surgeons [Plenary Presentation]
7. 2016 “Bone and Tendon Coverage via Dehydrated Human Amniotic Chorionic Membrane and Split Thickness Skin Grafting”, 28th Annual Symposium on Advanced Wound Care Spring [Poster Presentation]
8. 2016 “Ethnicity significantly affects anterolateral thigh flap anatomy”, Southeastern Society of Plastic Surgeons [Poster Presentation]
9. 2016 “The Nipple-to-IMF Distance in Macromastia: Poor Correlation with Sternum-to-Nipple Distance but Predictive of Nipple-Areolar Complex Necrosis”, Southeastern Society of Plastic Surgeons [Plenary Presentation]
10. 2016 “Sandwiched White Adipose Tissue: A Novel Microphysiological System for Human Adipose Tissue”, NIH NIDDK The Adipose Tissue Niche, Roles in Health and Disease [Plenary Presentation]
11. 2016 “Sandwiched White Adipose Tissue: A Novel Microphysiological System for Human Adipose Tissue”, NIH NIDDK The Adipose Tissue Niche, Roles in Health and Disease [Poster Presentation]
12. 2017 “A Prospective, Randomized Clinical Trial of Atraumatic Silver Dressings in the Management of Acute Surgical Wounds”, SAWC Spring 2017 [Poster Presentation]
13. 2017 “A Prospective Cohort Study of Atraumatic Silver Dressings as Split Thickness Skin Graft Bolsters”, SAWC Spring 2017 [Poster Presentation]
14. 2017 “HIPAA Non-Compliance in Digital Photograph Management and Security in Plastic Surgery”, Southeastern Society of Plastic Surgeons [Plenary Presentation]
15. 2017 “Tumescent-based Radical Excision of Hidradenitis Suppurativa: A Safe, Fast, and Efficacious Technique”, Southeastern Society of Plastic Surgeons [Plenary Presentation]
16. 2017 “Variations in the Anterolateral Thigh Flap’s Vascular Anatomy in African Americans”, American Society of Plastic Surgeons [Plenary Presentation]
17. 2017 “HIPAA Non-Compliance in Digital Photograph Management and Security in Plastic Surgery”, American Society of Plastic Surgeons [Plenary Presentation]
18. 2017 “Tissue Engineering for Limb Salvage: A Prospective, Randomized Clinical Trial of Dehydrated Human Amnion/Chorion Membrane Versus Flaps”, Military Health System Research Symposium [Poster Presentation]
19. 2017 “Cost Analysis of a Tissue Engineering Approach to Limb Salvage”, Military Health System Research Symposium [Poster Presentation]
20. 2018 “Tumescent-based Radical Excision of Hidradenitis Suppurativa: A Safe, Fast, and Efficacious Technique”, American Association of Plastic Surgeons [Poster Presentation]
21. 2018 “Phentermine: A Systematic Review for Plastic & Reconstructive Surgeons”, American Society of Plastic Surgeons [Plenary Presentation]
22. 2018 “Phentermine: A Systematic Review for Plastic & Reconstructive Surgeons”, Southeastern Society of Plastic Surgeons [Poster Presentation]
23. 2018 “Tissue Engineering for Limb Salvage: A Prospective, Randomized Controlled Trial of Dehydrated Human Amnion/Chorion Membrane”, Military Health System Research Symposium [Plenary Presentation]
24. 2018 “Dehydrated Human Amniotic-Chorionic Membrane Sheets Prevent   
    Incisional Hernia Formation”, American College of Surgeons Clinical Congress [Plenary Presentation]
25. 2019 “Tumescent-based Radical Excision of Hidradenitis Suppurativa: A Safe, Fast, and Efficacious Technique”, American College of Surgeons Clinical Congress [Poster Presentation]
26. 2019 “A Prospective RCT of Tissue Engineered Limb Salvage”, RAND-Department of Defense Blast Injury Research Symposium [Plenary Presentation]
27. 2019 “Tissue Engineering-Based Limb Salvage (teLS): A Promising Alternative to Free Tissue Transfer in the Pediatric Patient”, American Association of Plastic Surgeons [Plenary Presentation]
28. 2019 “Soft Tissue Regeneration for Critical Extremity Wounds: A Prospective, Randomized Controlled Trial of a Tissue Engineering-based Technique”, Southeastern Society of Plastic Surgeons [Plenary Presentation]
29. 2019 “Dehydrated Human Amniotic-Chorionic Membrane Sheets Prevent Incisional Hernia Formation: A Double-Blinded, Randomized Controlled Trial in a Validated Animal Model”, Southeastern Society of Plastic Surgeons [Poster Presentation]
30. 2019 “Tissue Engineering Limb Salvage: A Safe and Efficacious Reconstructive Option for Pediatric Patients”, Southeastern Society of Plastic Surgeons [Poster Presentation]
31. 2019 “Tumescent-Based Radical Excision Cures Hidradenitis: A Prospective Cohort Study”, Southeastern Society of Plastic Surgeons [Poster Presentation]
32. 2019 “Tumescent-Based Radical Excision Cures Hidradenitis: A Prospective Cohort Study”, Plastic Surgery The Meeting [Plenary Presentation]
33. 2019 “Dehydrated Human Amniotic-Chorionic Membrane Sheets Prevent Incisional Hernia Formation: A Double-Blinded, Randomized Controlled Trial in a Validated Animal Model”, Plastic Surgery The Meeting [Plenary Presentation]
34. 2019 “Incisional Hernia Prevention Using Autologous Cutis Grafts in Rat Model”, American College of Surgeons Clinical Congress [Poster Presentation]
35. 2019 “Transcriptional Characterization of a Pyoderma Gangrenosum Wound Pre- and Post-Treatment with Dehydrated Human Amnion/Chorion Membrane”, American Medical Association EXPO Research Symposium [Plenary Presentation]
36. 2019 “Incisional Hernia Prevention Using Autologous Cutis Grafts in Rat Model”, American College of Surgeons Clinical Congress [Plenary Presentation]
37. 2019 “Ubiquitin ligase siah2: a novel regulator of well-differentiated versus dedifferentiated liposarcomas”, Cell Symposia: Hallmarks of Cancer [Poster Presentation]
38. 2019 “A novel method to model breast cancer in human breast tissue”, Cell Symposia: Hallmarks of Cancer [Poster Presentation]
39. 2020 “Transcriptional Characterization of a Pyoderma Gangrenosum Wound Pre- and Post-Treatment with Dehydrated Human Amnion/Chorion Membrane”, Maui Derm [Plenary Presentation]
40. 2020 “Health Disparities in Incisional Hernia Repair: An Analysis of HCUP-NIS 2012-2014”, Southeastern Surgical Congress [Gold Medal Award Plenary Presentation]
41. 2020 “Nasal Venous Malformation with Intracranial Communication: Presentation, Management, and Review of the Literature”, Southeastern Surgical Congress [Plenary Presentation]
42. 2020 “Prevalence of Accessory Branches and Other Anatomical Variations of the Radial Artery Encountered During Radial Artery Forearm Flap Harvest: A Literature Review and Meta-Analysis”, Southeastern Surgical Congress [Plenary Presentation]
43. 2020 “Molecular Mechanisms in the Treatment of Pyoderma Gangrenosum with Dehydrated Human Amnion/Chorion Membrane”, Southeastern Surgical Congress [Plenary Presentation]
44. 2020 “Health Disparities in Incisional Hernia Repair: An Analysis of HCUP-NIS 2012-2014”, American College of Surgeons Clinical Congress [Poster Presentation]
45. 2020 “Axillary Reconstruction: A Systematic Review of the Literature”, Southeastern Society of Plastic Surgeons [Poster Presentation]
46. 2020 “Axillary Reconstruction: A Systematic Review of the Literature”, American Society for Dermatologic Surgery [Poster Presentation]

**International:**

1. 2013 “Abdominal Wall Reconstruction”, VINMEC International Hospital [Plenary Presentation]
2. 2013 “Brachial Plexus Injuries”, VINMEC International Hospital [Plenary Presentation]
3. 2016 “Sandwiched White Adipose Tissue: A Novel Microphysiological System for Human Adipose Tissue”, Obesity Week [Plenary Presentation]
4. 2017 “Sandwiched White Adipose Tissue: A Novel Microphysiological System for Human Adipose Tissue”, International Federation for Adipose Therapeutics and Science [Plenary Presentation]
5. 2018 “Tissue Engineering for Limb Salvage: A Prospective, Randomized Clinical Trial of Dehydrated Human Amnion/Chorion Membrane Versus Flaps”, John A. Boswick Burn and Wound Symposium [Plenary Presentation]
6. 2018 “Cost Analysis of a Tissue Engineering Approach to Limb Salvage”, John A. Boswick Burn and Wound Symposium [Plenary Presentation]
7. 2018 “A Prospective, Randomized Clinical Trial of Atraumatic Silver Dressings in the Management of Acute Surgical Wounds”, John A. Boswick Burn and Wound Symposium [Poster Presentation]
8. 2018 “Tumescent-Based Radical Excision (TRE) of Hidradenitis: Safe, Fast, and Efficacious”, John A. Boswick Burn and Wound Symposium [Poster Presentation]
9. 2019 “Tissue Engineering for Limb Salvage: A Prospective, Randomized Controlled Trial of Dehydrated Human Amnion/Chorion Membrane”, John A. Boswick Burn and Wound Symposium [Plenary Presentation]
10. 2019 “Mesenchymal Stem Cell Exosomes in Hostile, Refractory Lower Extremity Wounds”, John A. Boswick Burn and Wound Symposium [Plenary Presentation]
11. 2019 “Treatment of Erythromelalgia & Frostbite: A Case Report”, John A. Boswick Burn and Wound Symposium [Poster Presentation]
12. 2020 “Pyoderma Gangrenosum: A Local Surgical Cure and Molecular Insights”, John A. Boswick Burn and Wound Symposium [Plenary Presentation]
13. 2020 “Mesenchymal Exosomes for Complete Closure of a Recurrent Ischial Ulcer”, John A. Boswick Burn and Wound Symposium [CME Plenary Presentation]

**Invited Presentations and Seminars**

**Plenary lectureships or refresher courses at professional meetings/symposia:**

1. 2010 "Information Technologies: The Third Pillar of Medical Education", Medical Technology, Training & Treatment Conference [Invited Lecture]
2. 2014 Simple Milestones, Massachusetts General Hospital
3. 2015 “Wound Healing”, LSUHSC-NO Division of Plastic & Reconstructive Surgery
4. 2015 Poly(N-isopropylacrylamide): New Applications in Cell Culture and Tissue Engineering, Institute of Electrical and Electronics Engineers New Orleans Meeting
5. 2016 “Extremity Reconstruction”, LSUHSC-NO Division of Plastic & Reconstructive Surgery
6. 2016 “Breast Augmentation”, LSUHSC-NO Division of Plastic & Reconstructive Surgery
7. 2016 “Vascular Anomalies”, LSUHSC-NO Division of Plastic & Reconstructive Surgery
8. 2017 “Hidradenitis and Chest Wall Reconstruction”, LSUHSC-NO Division of Plastic & Reconstructive Surgery
9. 2018 “Perianal Hidradenitis Suppurativa, Beyond the Basics”, American Society of Colorectal Surgeons Annual Meeting
10. 2018 “Large volume fat grafting to the buttocks is unsafe and should not be done”, Southeastern Society of Plastic Surgeons Annual Meeting
11. 2019 “Incisional Hernia Prophylaxis: A Novel, Mesh-Free Strategy”, Southern Society of Clinical Surgeons Meeting
12. 2020 “Mechanisms Linking Obesity and Breast Cancer: A Study Using a Novel, Microphysiological System of Breast Cancer”, Southeastern Society of Plastic Surgeons

**Visiting professorships or seminars:**

1. 2010 "Future Medical Education", Thayer School of Engineering at Dartmouth
2. 2011 "Medical Education in the 21st Century", Thayer School of Engineering at Dartmouth
3. 2012 The Third Pillar of Medical Education, Thayer School of Engineering at Dartmouth
4. 2013 Medical Education in the 21st Century, Thayer School of Engineering at Dartmouth
5. 2013 Preventing Knowledge Decay in Medicine & Surgery, Mayo Clinic Department of Plastic Surgery
6. 2014 Everything Needs a Blood Supply: Engineering Capillary Networks, Louisiana State University Healthcare System Department of Surgery
7. 2015 Medical Education in the 21st Century, Thayer School of Engineering at Dartmouth
8. 2017 “Sandwiched White Adipose Tissue: A Novel Microphysiological System for Human Adipose Tissue”, Pennington Biomedical Research Center Seminar Series

**Editorial Posts and Activities**

**Reviewer status:**

1. 2013-current Ad-Hoc Reviewer, Journal of Reconstructive Microsurgery
2. 2016-2019 Ad-Hoc Reviewer, PLoS ONE
3. 2018-2019 Ad-Hoc Reviewer, International Journal of Obesity
4. 2019-current Academic Editor, PLoS ONE Editorial Board