CURRICULUM VITAE Jennifer L. Long, M.D., Ph.D.

ADDRESSES:

UCLA Head and Neck Surgery

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EDUCATION:

B.S., Summa cum Laude and With Honors, Chemical Engineering,

University of Toledo, 1992-1996

M.D., University of Minnesota, 1996-2004

Ph.D., Chemical Engineering, University of Minnesota, 1998-2003

Head and Neck Surgery residency, UCLA, 2004-2010

Fellowship in Laryngology and Voice, UCLA, 2010-2011

LICENSURE:

California Medical Doctor A93108

BOARD CERTIFICATION:

Diplomate of the American Board of Otolaryngology, 2011

PROFESSIONAL EXPERIENCE:

Assistant Professor-in-Residence, UCLA David Geffen School of Medicine, 2011-present

Staff Physician and Principal Investigator, Greater Los Angeles Veteran's Administration Health System, 2011-present

Clinical Instructor, UCLA Department of Surgery, 2010-2011

PROFESSIONAL ACTIVITIES:

National service:

American Board of Otolaryngology Task Force for New Materials, 2014-2017 AAO-HNS Medical Devices and Drugs Committee, 2012-present

Society Memberships:

Triological Society, Fellow, 2017

Triological thesis accepted, "Repairing the vibratory vocal fold," January, 2017 Candidate member, 2015-2017

American Laryngological Association, Post-graduate fellow, 2015-present

Appointed to ALA Post-Graduate Fellow's Committee, 2016

American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS), 2004-present

Grant review committees:

NIH Special Translational Research Program, NIDCD, 2014 AAO-HNS Foundation CORE Grants, 2015, 2016 Triological Society Career Development Program, 2016 Auckland Medical Research Foundation, 2016 American Laryngological Association Grant Program, 2017

Institutional memberships and committees:

Eli and Edythe Broad Center of Regenerative Medicine and Stem Cell Research, 2016-present UCLA Jonsson Comprehensive Cancer Center, 2015-present CTSI Scientific Review Committee, 2016-present

Provisional patent applications:

"Implantable oscillating tissue replacement," 2009 "Stem cell therapy for dysphagia due to tongue atrophy," 2015

Journal reviewer for:

Annals of Otology, Rhinology, and Laryngology
Archives of Otolaryngology
British Journal of Surgery
Laryngoscope
JAMA Otolaryngology
Journal of Speech, Language, and Hearing Research (Guest Associate Editor, 2013)
Nature Medicine

TEACHING ACTIVITIES:

Course director:

UCLA David Geffen School of Medicine third and fourth year otolaryngology clerkships, 2014-present

Advisor for medical student researchers:

1. Justin Tse, UCLA DGSOM, 2012-2015

2014 awardee of the national Alpha Omega Alpha Carolyn Kuckein Student Research Fellowship;

First place poster awardee at Triological Society, Laryngology/Bronchoesophagology section, 2014

- 2. Ashley Kita, UCLA DGSOM, 2012-2015 2014 awardee of the UCLA DGSOM Viola Hyde Scholarship Fund Research Award
- 3. Amarbir Gill, visiting student from George Washington University, 2012
- 4. Sassan Rafizadeh, Ph.D., visiting student from University of Toledo, 2012
- 5. Lyndon Gonzalez, UCLA DGSOM Short-term Training Program, summer 2013
- 6. Alexander Goel, UCLA DGSOM Short-term Training Program, summer 2015 2015 awardee of the UCLA DGSOM Viola Hyde Scholarship Fund Research Award

Advisor for Head and Neck Surgery resident research rotations:

- 1. Dr. Jonathon Salinas, "Rabbit vocal fold cover layer replacement," 2012
- 2. Dr. Travis Shiba, "In vivo tissue-engineered vocal fold cover layer replacement," 2014 2014 awardee of the national AAO-HNS CORE Resident Research Grant
- 3. Dr. Aaron Feinstein, "Cough quality in laryngeal hypofunction," 2015 Submitted 2015 AAO-HNS CORE Resident Research Grant
- 4. Dr. Andrew Vahabzadeh-Hagh, "Stem cell injection for tongue fibrosis," 2015 Second place poster awardee at Triological Society Annual Meeting, 2016
- 5. Dr. John Frederick, "Stem cell engraftment in a rat tongue fibrosis model," 2016 Submitted 2016 AAO-HNS CORE Resident Research Grant

UCLA Instructor:

For DGSOM Medical students:

Anatomy lab, anterior neck portion: January 2014, January 2015 Suturing lab: October 2011, October 2013. Head and neck physical examination module: 2006, 2008, 2014

For Head and Neck Surgery residents:

Mock oral boards examiner: October 2011, November 2014, June 2015 Laryngology Conference:

March 7, 2012, "Vocal fold paralysis" September 2014, Laryngeal dissection lab April, 2015, "UCLA Laryngology research" February, 2017, "Laryngotracheal stenosis"

For other UCLA students:

Phonatory dissection course for linguistic students, June 2013. Laryngeal anatomy for musicology students, May, 2015.

Other:

Tutor, Retention Services, University of Toledo, 1993-1995

Teaching assistant, Introduction to Engineering, University of Toledo,, 1995

Neuroscience review coordinator and instructor, University of Minnesota Medical School, 1997-1998

Teaching assistant, University of Minnesota Chemical Engineering and Materials Science Department:
Material and Energy Balances, undergraduate course, 1999
Biomedical Transport Processes, undergraduate and graduate course, 2001

RESEARCH GRANTS AND FELLOWSHIPS RECEIVED:

University of Toledo Presidential Scholarship, 1992-1996.

National Merit Scholar, 1992-1996.

Earl Bakken Fellowship, University of Minnesota College of Medicine, 1996-1998 and 2002-2004.

Whitaker Foundation Fellowship, University of Minnesota Institute of Technology, 1998-2002.

American Laryngologic Association/ AAO-HNS CORE grant

"In vivo vocal fold cover replacement" \$10,000 total costs, 1 year July 1, 2012- June 30, 2013 Role: PI.

Veteran's Administration Career Development Award

"Bilayered vocal fold tissue engineering" \$1,315,966 direct costs, 5 years.
April 1, 2013- March 31, 2018
Role: PL

American Academy of Otolaryngology-Head and Neck Surgery CORE Resident Research Grant

"In vivo tissue-engineered vocal fold cover layer replacement"

\$10,000 total costs, 1 year July 1, 2014-June 30, 2015

Role: Faculty Mentor. Dr. Travis Shiba, PI.

HONORS AND SPECIAL AWARDS:

University of Toledo Outstanding Senior award, 1996

University of Minnesota Medical Alley Award for biomedical engineering research, 1997

University of Minnesota Gault scholarship for international medical study in Santiago, Chile, 2003

University of Minnesota Steer-Pruitt award for outstanding cardiovascular research, 2004

University of Minnesota Medical Research Award, 2004

University of Minnesota Melvin Sigel Award for Outstanding Medical Student in Otolaryngology, 2004

AAO-HNSF Conference on Research Education and Training in Otolaryngology travel award, 2005

Triological Society Western Section resident poster award, 2009

UCLA Head and Neck Surgery graduating resident research award, 2010

Research Study Club of Los Angeles resident research award, 2010

American Laryngological Association Young Faculty Award, 2014

INVITED LECTURES AND PRESENTATIONS:

- 1. "In vivo measurement of solute transport rates in a bioartificial organ." American Institute of Chemical Engineers Annual Meeting, Miami Beach, FL. November, 1998.
- 2. "Fibrin promotes a regenerative phenotype in adrenal cortical cells." American Institute of Chemical Engineers Annual Meeting, Los Angeles, CA. November, 2000.
- 3. "Bone marrow-derived stem cells in arterial media-equivalent fabrication." Biomedical Engineering Society Annual Meeting, Raleigh, NC. October, 2001.
- 4. "Lymphomas in the head and neck." M.D/Ph.D. Clinical and Basic Sciences Seminar, University of Minnesota. April, 2004.
- 5. "Epithelial differentiation of adipose-derived stem cells for laryngeal tissue engineering." American Laryngologic Association, Phoeniz, AZ. May, 2009.
- 6. "Functional testing of a tissue-engineered vocal fold cover replacement." AAO-HNS Annual Meeting, San Diego, CA. October, 2009.
- 7. "Tissue-engineered vocal fold replacement." University of Rochester Otolaryngology Department Grand Rounds, Rochester, NY. December, 2009.
- 8. "Tissue engineering for vocal fold scar." Research Study Club, Los Angeles, CA. January, 2010.
- 9. "Tissue engineering approaches to vocal fold mucosal defects." 18th Annual PVSF/UCLA Pacific Voice Conference, Los Angeles, CA. February, 2010.
- 10. "Tissue engineering for treatment of vocal fold scar." UC-Davis Otolaryngology Department Grand Rounds, Sacramento, CA. April, 2010.
- 11. "Vocal fold tisue engineering." UC-San Diego Otolaryngology Department Grand Rounds, San Diego, CA. April, 2010.
- 12. "Advanced laryngeal surgeries." UCLA surgical nurse orientation, Los Angeles, CA. September, 2010.
- 13. "Vocal fold tissue engineering." University of Minnesota Otolaryngology Department Grand Rounds, Minneapolis, MN. November, 2010.
- 14. "Laryngeal conservation surgery: who, where, and how." Southern Chapter of the American College of Surgeons Annual Meeting, Santa Barbara, CA. January, 2012.
- 15. "Laryngology and tissue engineering." UCLA Head and Neck Surgery Medical Student Interest Group, Los Angeles, CA. February, 2012.

- 16. "Rabbit model of vocal fold vibration." American Broncho-esophageal Association Annual Meeting, San Diego, CA. April, 2012.
- 17. "Stem cell tissue engineering of the vocal folds." 21st Annual PVSF/UCLA Pacific Voice Conference, Los Angeles, CA. February, 2013.
- 18. "Managing complications of cranial neuropathies." Los Angeles Research Study Club. February, 2014.
- 19. "Status of the Tissue-Engineered Vocal Fold Cover." 2014 International Conference on Voice Physiology and Biomechanics. Salt Lake City, UT. April, 2014.
- 20. "In vivo vocal fold cover replacement." American Laryngological Association Annual Meeting, Las Vegas, NV. May, 2014.
- 21. "The role for epithelium in vocal fold tissue engineering." Strategic Direction in Laryngeal Tissue Regeneration Conference, Madison, WI. July, 2014.
- 22. "Regenerative Otolaryngology." Presented within "Technology with a Twist" Mini-seminar, AAO-HNSF Annual Meeting, Orlando, FL. September, 2014.
- 23. "Rehabilitation of the aging voice." University of California-Irving Department of Otolaryngology Grand Rounds, Irvine, CA. October, 2014.
- 24. "Vocal fold tissue engineering." Fall Voice Conference, Pittsburgh, PA. October, 2015.
- 25. "Crash course in stroboscopy interpretation." UCLA Laryngology Update 2016: In-Office Diagnosis and Treatment. Los Angeles, CA. April 15, 2016.
- 26. "Chronic cough: After the PPIs don't work." UCLA Laryngology Update 2016: In-Office Diagnosis and Treatment. Los Angeles, CA. April 15, 2016.
- 27. "Office injectables, balloons, and laser fibers: Options and reimbursement." UCLA Laryngology Update 2016: In-Office Diagnosis and Treatment. Los Angeles, CA. April 15, 2016.
- 28. "Cell persistence in tissue-engineered vocal fold mucosa." Modeling Laryngeal Biology conference. Madison, WI. July 7, 2016.
- 29. "Refining management of unilateral vocal fold paralysis." 14th Biennial Phonosurgery Symposium. Madison, WI. July 8, 2016.
- 30. "Vocal fold scarring" panelist. Fall Voice Conference. Scottsdale, AZ. October, 2016.
- 31. "Laryngeal Panel" panelist. Los Angeles Research Study Club. January, 2017.
- 32. "Restoring voice and swallow." Manufacturing Cell and Gene Therapies A Workshop on Clinical Cell Processing. Los Angeles, CA. March 6, 2017.
- 33. "Voice-less-ness: Facing acute laryngitis." UCLA Laryngology Update 2017: The Performing and Professional Voice. Los Angeles, CA. April 7, 2017.
- 34. "Repairing the vibratory vocal fold." Triological Society Annual Meeting. San Diego, CA. April, 2017.

MEDIA APPEARANCES:

- 1. Good Morning America, ABC; September 12, 2013.
- 2. "The Aging Voice", Healthy Years, April 2015.
- 3. LabTV.com, posted October 7, 2015.

 "Bioengineering vocal folds", podcast, *Science* 20 November 2015: Vol. 350 no. 6263 p. 991 DOI: 10.1126/science.350.6263.991-b

PUBLICATIONS/BIBLIOGRAPHY:

RESEARCH PAPERS (PEER-REVIEWED)

- 1. Baker, A; Fournier, R; Sarver, J; **Long, J**; Goldblatt, P; Horner, J; Selman, S. Evaluation of an immunoisolation membrane formed by incorporating a poly(vinyl alcohol) hydrogel into a microporous filter support. *Cell Transplantation* 6(6): 585-95, 1997.
- 2. Krohn, J; Baker, A; **Long, J;** Fournier, R; Byers, J. In vivo measurement of solute transport rates in a bioartificial organ. *Tissue Engineering* 5(3):197-206, 1999.
- 3. **Long, J**; Tranquillo, R. Elastic fiber production in cardiovascular tissue equivalents. *Matrix Biology* 22: 339-350, 2003.
- 4. **Long, J**; Strocker, A; Wang, M; Blackwell, K. EGFR expression in primary squamous cell carcinoma of the thyroid. *Laryngoscope* 119(1): 89-90, 2009.
- 5. **Long, J**; Zuk, P; Berke, G; Chhetri, D. Epithelial differentiation of adipose-derived stem cells for larvngeal tissue engineering. *Larvngoscope* 120(1): 125-131; 2010.
- 6. **Long, J;** Neubauer, P; Zhang, Z; Zuk, P.; Berke, G.; Chhetri, D. Functional testing of a tissue-engineered vocal fold cover replacement. *Otolaryngology-Head and Neck Surgery* 142(3):438-440; 2010.
- 7. **Long, J.** Tissue engineering for treatment of vocal fold scar. (Review). *Current Opinion in Otolaryngology* 18(6): 521-525; 2010.
- 8. Chhetri, D; **Long, J**. Airway management and stenosis treatment using flexible bronchoscope and laryngeal mask anesthesia. *Operative Techniques in Otolaryngology* 22(2): 131-134; 2011.
- 9. **Long, J**; Berke, G. Selective laryngeal denervation and reinnervation for spasmodic dysphonia. *Operative Techniques in Otolaryngology*, 23: 183-187; 2012.
- 10. Deconde, A; **Long, J**; Armin, B; Berke, G. Functional renervation of vocal cords after SLAD-R surgery for spasmodic dysphonia. *Journal of Voice*, 26(5): 602-3; 2012.
- 11. Bergeron, J; **Long, J**; Chhetri, D. Dysphagia characteristics in Zenkers diverticulum. *Otolaryngology-Head and Neck Surgery*. 148(2):223-8; 2013.
- 12. Rafizadeh, S; **Long, J.** Pantothenate kinase-associated neurodegeneration causing paradoxical vocal fold motion. *Journal of Voice*, 27(5): 642-3; 2013.
- 13. Gill, A; **Long, J**. Transnasal esophagoscopy and the diagnosis of mediastinal foregut duplication cysts. *Ear, Nose, and Throat Journal*, 92(8):332-3; 2013.

- 14. Tse, J; **Long, J.** Microstructure Characterization of a Decellularized Vocal Fold Scaffold for Laryngeal Tissue Engineering. *Laryngoscope*, 124(8): E326-31; 2014.
- 15. **Long, J**; Salinas, J; Rafizadeh, S; Luegmair, G; Zhang, Z; Chhetri, D. In vivo vocal fold cover layer replacement. *Laryngoscope*, 125(2): 406-11; 2015.
- 16. Ching, H; Mendelsohn, A; Liu, I; **Long, J;** Chhetri, D; Berke, G. A comparative study of cricotracheal resection and staged laryngotracheoplasty for adult subglottic stenosis. *Annals of Otology, Rhinology, and Laryngology*, 124(4): 326-33; 2015.
- 17. Kim, I; **Long, J**. Laryngotracheal stenosis as a complication of photodynamic therapy. *Annals of Otology, Rhinology, and Laryngology*, 124(6): 495-8; 2015.
- Liu, I; Mendelsohn, A; Ching, H; Long, J; Chhetri, D; Berke, G. Staged laryngotracheoplasty in adult laryngotracheal stenosis: predictors of long-term decannulation. *JAMA Otolaryngology-Head and Neck Surgery*, 141 (3):211-8; 2015. doi: 10.1001/jamaoto.2014.3283.
- 19. Peng, K; Wu, E; Lorentz, W; Wang, M; **Long, J**. A swallow preservation protocol improves function for veterans receiving chemoradiation for head and neck cancer. *Otolaryngology-Head and Neck Surgery*, 152(5): 863-7; 2015.
- 20. Shiba, T; Hardy, J; **Long, J**. Laryngeal tissue engineering using rabbit adipose-derived stem cells in fibrin: A pre-clinical model. *Journal of Otolaryngology Advances*, 1(1): 28-40; 2015.
- 21. Tse, J; Zhang, Z; **Long, J**. Effects of vocal fold epithelium removal in an excised human larynx model. *Journal of the Acoustical Society of America- Express Letters*, 138(1): EL60-4; 2015. doi: 10.1121/1.4922765.
- 22. Kita, A; Long, J. Hemangioma. Ear, Nose, and Throat Journal, 95 (1): 19-20; 2016.
- 23. Shiba, T; Hardy, J; Luegmair, G; Zhang, Z; **Long, J**. Tissue-engineered vocal fold mucosa implantation. *Otolaryngology-Head and Neck Surgery*, 154 (4): 679-88; 2016. doi: 10.1177/0194599816628501.
- 24. Feinstein, A; Goel, A; Raghavan, G; **Long, J**; Chhetri, D; Berke, G; Mendelsohn, A. Endoscopic management of subglottic stenosis. *JAMA-Otolaryngology*. Accepted Jan 10, 2017.
- 25. Feinstein, A; Zhang, Z; Chhetri, D; **Long, J**. Measurement of cough aerodynamics in healthy adults. *Annals of Otology, Rhinology, and Laryngology*. Accepted Jan 23, 2017.

RESEARCH PAPERS (NON-PEER REVIEWED)

- 1. Salinas, J; Zaghi, S; Berke, G; **Long**, **J**. Case of the month: Laryngeal Tuberculosis. *ENT Today*; Wiley-Blackwell, 2012.
- 2. Long, J. Coming of age of cell-based therapies. The Bulletin of the AAO-HNS, July, 2014.
- 3. Long, J; Chhetri, D. Restoring voice. Science, 350: 908-9; 2015.

BOOKS

1. **Long, J** (2003). *Elastogenesis in cardiovascular tissue engineering*. Doctoral dissertation, University of Minnesota. ProQuest publication number 3107936.

BOOK CHAPTERS

- 1. **Long, J;** Berke, G. Functions of the larynx and production of sounds. In *Handbook of Mammalian Vocalization*; Brudzinski, S., Ed; Elsevier, 2009.
- 2. **Long, J**; Berke, G. Point-touch vocal fold injection. In *Laryngeal Dissection and Surgical Guide*; Dailey, S. and Verma, S., Eds; Thieme Publishing, 2013.
- 3. **Long, J**; Chhetri, D. Surgical management of spasmodic dysphonia. In *Atlas of Operative Otorhinolaryngology*; Hathiram, B. and Khattar, V., Eds; Jaypee Brothers Medical Publishers, 2013.

ABSTRACTS

- 1. **Long, J**; Fournier, R. In vivo solute transport in neovascularized rat capillaries. American Institute of Chemical Engineers Annual Meeting, Miami Beach, FL. November, 1995.
- 2. **Long, J**; Fournier, R; Sarver, J. In vivo receptor-mediated transcytosis of insulin in rat capillaries. National Conference on Undergraduate Research, Asheville, NC. April, 1996.
- 3. **Long, J**; Grassl, E; Isenberg, B; Lee, E; Tranquillo, R. Elastogenesis in collagen and fibrin gel cultures. Experimental Biology Meeting, New Orleans, LA. April, 2002.
- 4. **Long, J**; Meyer, A; Maisel, R; Pambuccian, S. FNA in diagnosis of head and neck lymphomas. AAO-HNS Annual Meeting, Los Angeles, CA. September, 2005.
- 5. Meyer, A; **Long, J**; Pambuccian, S; Maisel, R. Sinonasal lymphomas: The experience of two institutions. Triological Society Combined Sections Meeting, Marco Island, FL. February, 2007.
- 6. **Long, J**; Strocker, A; Wang, M; Blackwell, K. EGFR expression in primary squamous cell carcinoma of the thyroid. Triological Society Western Section Meeting, Rancho Mirage, CA. January, 2008.
- 7. **Long, J**; Liu, J; Nguyen, C. Retroesophageal subclavian artery: A cause of acute airway obstruction following tracheostomy. Triological Society Annual Meeting, Orlando, FL. May, 2008.
- 8. **Long, J**; Chhetri, D; Gerratt, B; Berke, G. Current status of videostroboscopy. AAO-HNS Annual Meeting, Chicago, IL. September, 2008.
- 9. **Long, J**; Chhetri, D. Office-based endoscopic diagnosis of Zenker's diverticulum. Western Section Meeting of the Triological Society, Las Vegas, NV. January, 2009.
- 10. **Long, J**; Salinas, J; Ye, M; Chhetri, D. Rabbit model of vocal fold vibration. American Broncho-Esophageal Association Annual Meeting, San Diego, CA. April, 2012.

- 11. Liu, I; Mendelsohn, A; Ching, H; **Long, J**; Chhetri, D; Berke, G. Staged Laryngotracheoplasty for reconstruction of adult laryngotracheal stenosis: A 12-year experience. AAO-HNS Annual Meeting, Vancouver, BC, Canada. September, 2013.
- 12. Ching, H; Mendelsohn, A; Liu, I; **Long, J**; Chhetri, D; Berke, G. A comparative study of cricotracheal resection and staged laryngotracheoplasty for adult subglottic stenosis. American Broncho-Esophageal Association Annual Meeting, Las Vegas, NV. April, 2014.
- 13. **Long, J**; Rafizadeh, S; Salinas, J; Ye, M; Zhang, Z; Chhetri, D. In vivo vocal fold cover layer replacement. American Laryngological Association Annual Meeting, Las Vegas, NV. April, 2014.
- 14. Kim, I; **Long, J.** Laryngotracheal stenosis as a complication of photodynamic therapy. American Broncho-Esophageal Association Annual Meeting, Las Vegas, NV. April, 2014.
- 15. Tse, J; Yuan, X; Zhang, Z; **Long, J**. Selectively removing the epithelium impairs vibration in an excised larynx model. Triological Society Annual Meeting, Las Vegas, NV. April, 2014.
- 16. Peng, K; Wu, E; Lorentz, W; Wang, MB; **Long, J**. A Swallow Preservation Protocol Improves Function for Veterans Receiving Chemoradiation for Head and Neck Cancer. AAO-HNS Annual Meeting, Orlando, FL. September, 2014.
- 17. Shiba, T; Hardy, J; **Long, J**. Rabbit ASC for vocal fold tissue engineering. AAO-HNS Annual Meeting, Orlando, FL. September, 2014.
- 18. Kita, A; **Long, J**. Solute flux as a quantitative permeability measure in a stem cell-derived laryngeal mucosa replacement. Triological Society Combined Sections Meeting, San Diego, CA. January, 2015.
- 19. Shiba, T; Hardy, J; Luegmair, G; Zhang, Z; **Long, J**. In vivo tissue-engineered vocal fold cover replacement. AAO-HNS Annual Meeting, Dallas, TX. September, 2015.
- 20. Vahabzadeh-Hagh, A; Goel, A; Berke, G; **Long, J.** Stem cell therapy in a model of dysphagia secondary to tongue fibrosis. Triological Society Annual Meeting, Chicago, IL. May, 2016.
- 21. Feinstein, A.; Zhang, Z.; Chhetri, D.; **Long, J**. Unilateral vocal fold immobility: Cough strength and patterns. American Bronchoesophageal Association Annual Meeting, Chicago, IL. May, 2016.
- 22. **Long, J.** Repairing the vibratory vocal fold. Triological Society Annual Meeting, San Diego, CA. April, 2017.