CURRICULUM VITAE

Jennifer Susan Stone
Virginia Merill Bloedel Hearing Research Center
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Personal Data	**Date of Birth**	March 5, 1964
	Place of Birth	Cambridge, Massachusetts
	Status	Married, two children

Education

May 1985	B.A., Biology and Studio Art, Skidmore College, Saratoga Springs, New York. Departmental Honors in Biology.
July 1993	Ph.D., Department of Anatomy and Neurobiology, Boston University School of Medicine, Boston, Massachusetts

Postgraduate Training

July1993-March 1998	Postdoctoral Fellowship, Department of Otolaryngology/Head and Neck Surgery, University of Washington

Faculty Positions

April 1998	Research Assistant Professor, Otolaryngology/Head and Neck Surgery, University of Washington
July 2004	Research Associate Professor, Dept of Otolaryngology/Head and Neck Surgery, University of Washington
July 2015-present	Research Professor, Dept of Otolaryngology/Head and Neck Surgery, University of Washington

Affiliations

2004-present	Faculty, Neurobiology and Behavior Graduate Program, UW Affiliate, Virginia Merrill Bloedel Hearing Research Center, UW Affiliate, Center for Human Development and Disability, UW Member, Hearing Regeneration Project Consortium, USA

Intramural Responsibilities at the University of Washington (UW)

2000-2015	Director/Co-Director of the Communications Research Microscopic Imaging Core, a NIDCD/NIH-supported P30 Core
1999 -2004	Affiliate Liaison Committee, VM Bloedel Hearing Research Center
2003, 2004	Faculty Senate
2004 - present	Resident Admissions Committee, Otolaryngol/Head & Neck Surgery
2009 - present	Graduate Dissertation Committee Member - Kate Tabor, Neurobiology and Behavior Training Program - Ivan Cruz, Molecular and Cellular Biology Training Program - Sarah Pickett, Neurobiology and Behavior Training Program

2010-2012	Chair, Seminar Committee, Neurobiology and Behavior Graduate Program
2002-present	Training Faculty, Auditory Neuroscience Training Grant, NIH/NIDCD T32 Grant
2003-present	Training Faculty for Resident Research, Basic Science Training in Otolaryngology/Head and Neck Surgery, NIH/NIDCD T32 Grant
2011-present	Appointments and Promotions Committee, Otolaryngology/Head and Neck Surgery
2012-present	Research Committee, Otolaryngology/Head and Neck Surgery
2015-present	Affiliate Liaison Committee, VM Bloedel Hearing Research Center
2016-present	Director of Research, Otolaryngology/Head and Neck Surgery

National Responsibilities

1998-1999	Publications Committee, Association for Research in Otolaryngology
2001- 2005	Travel Award Committee, Association for Research in Otolaryngology
2002-present	Ad hoc grants reviewer for NIH/NIDCD, Action on Hearing Loss, Hearing Health Foundation
1998-present	Reviewer, Development, Journal of Comparative Neurology, J. Neurobiology, Hearing Research, J. Assoc. Research in Otolaryngology, Mechanisms of Development
2005-2009	Review Committee Member, Communications Disorders Research Committee, NIH/NIDCD,
2008	Co-Organizer, Conference on Cell Replacement in Inner Ear, June 12-15 2008, Bethesda
2009-present	Council of Scientific Trustees, Hearing Health Foundation
2012-present	Grants Management Committee, Hearing Health Foundation
	Faculty, Marine Biology Laboratories Inner Ear Biology course Woods Hole
2011, 2012, 2014	Chair, Grants Review Committee, Hearing Health Foundation
2011	Invited participant, NIH/NIDCD Regeneration Workshop, Bethesda
2013, 2014	Nominating Committee, Association for Research in Otolaryngology
2013, 2014	Program Committee, Association for Research in Otolaryngology
2014-present	Council, Association for Research in Otolaryngology

Honors

1993	First Award in Recognition of Dissertation Research, Boston Univ.
2001	Burt Evans Award for Outstanding Young Investigator, National Organization for Hearing Research
2003	Dorrance H. Hamilton Award in Auditory Science, National Organization for Hearing Research Grant

Professional Societies

Association for Research in Otolaryngology
Society for Neuroscience

Research Interests

Developmental neurobiology
Sensory neurobiology
Regeneration and morphology of auditory and vestibular hair cells

Research Funding

Current

R01 DC013771-01 4/1/2014-5/31/2019
NIH/NIDCD
Vestibular hair cell turnover in normal adult mammals
Role: Principal Investigator

Hearing Restoration Project 5/1/2016 – 4/30/2017
Hearing Health Foundation
A cross-species approach toward functional testing for hair cell regeneration
Role: Co-Investigator D. Raible at U. WA and A. Groves at Baylor College

Hearing Restoration Project 5/1/2016 – 4/30/2017
Hearing Health Foundation
Transcriptional profiling of purified supporting cells from control and damaged adult mouse utricles, with and without inactivation of Notch signaling
Role: Co-Investigator (with N. Segil at USC)

Hearing Restoration Project 5/1/2016 – 4/30/2017
Hearing Health Foundation
Single cell transcriptional profiling of chicken utricle and basilar papilla sensory epithelium cells after aminoglycoside-induced hair cell loss
Role: Co-Investigator (with M. Warchol at Washington University, M. Lovett at Imperial College London, and S. Heller at Stanford University)

Completed

R21 DC013358-01 7/1/2013-6/30/2015
NIH/NIDCD
Structure-function analyses on novel processes of type II vestibular hair cells
Role: Co-Principal Investigator (with R.A. Eatock at U. Chicago)

Bibliography

Research Papers Published in Refereed Journals

1. Sherman, GF, Stone, JS, Press, DM, Rosen, GD, Galaburda, AM (1990). Abnormal architecture and connections disclosed by neurofilament staining in the cerebral cortex of autoimmune mice. Brain Research 529: 202-207.
2. Sherman, GF, Stone, JS, Rosen, GD, Galaburda, AM (1990). Neocortical vasoactive intestinal peptide neurons are increased in the hemisphere containing focal cerebrocortical microdysgenesis in New Zealand black mice. Brain Research 532: 232-236.
3. Stone, JS, Cotanche, DA (1991). Hair cell differentiation in the developing chick cochlea and in embryonic cochlear organ culture. Journal of Comparative Neurology 314: 614-625.
4. Stone, JS, Cotanche, DA (1992). Synchronization of hair cell regeneration in the chick cochlea. Journal of Cell Science 102:671-680.
5. Stone, JS, Cotanche, DA (1994). Identification of the timing of S phase and the patterns of cell proliferation during hair cell regeneration in the chick cochlea. Journal of Comparative Neurology 341: 50-67.
6. Bhave, S, Stone, JS, Rubel, EW, and Coltrera, M (1995). Cell cycle progression in gentamicin-damaged avian cochleas. Journal of Neuroscience 15: 4618-28.
7. Stone, JS, Leaño, SG, Baker, LP, Rubel, EW (1996). Hair cell differentiation in chick cochlear epithelium after aminoglycoside toxicity: In vivo and in vitro observations. Journal of Neuroscience 16: 6157-74.
8. Mason. K, Peale, FV, Stone, JS, Rubel, EW, Bothwell, M (1998). Expression of novel potassium channels in the chick basilar papilla. Hearing Research 125: 120-30.
9. Stone, JS, Rubel, EW (1999) Delta1 expression during avian hair cell regeneration. Development 126: 961-73.
10. Molea, D, Stone, JS, Rubel, EW (1999). Class III ßtubulin expression identifies early differentiating hair cells in the developing avian inner ear. Journal Comparative Neurology 406: 183-198.
11. Cochran, SL, Stone, JS, Bermingham-McDonogh, Akers, SR, Lefcort, F, Rubel, EW (1999). Ontogenetic expression of trk neurotrophin receptors in the chick auditory system. Journal of Comparative Neurology. 413: 271-288.
12. Stone, JS, Choi, Y-S, Yamashita, H, Woolley, SMN, Rubel, EW (1999). Progenitor cell cycling during hair cell regeneration in the vestibular and auditory epithelia of the chick. Journal of Neurocytology 28: 863-876.
13. Stone, JS and Rubel, EW (2000). Temporal, spatial, and morphological features of hair cell regeneration in the avian basilar papilla. Journal of Comparative Neurology 417: 1-16.
14. Matsui, JI, Oesterle, EC, Stone, JS, Rubel, EW (2000). Characterization of damage and regeneration in cultured avian utricles. Journal of the Association for Research in Otolaryngology 1:46-63.
15. Bermingham-McDonogh, O, Stone, JS, Reh, TA, Rubel, EW (2001). FGFR3 expression during development and regeneration of chick inner ear. Developmental Biology 238:247-59.
16. Lippe, WR, Zirpel, LI, Stone, JS (2002). Muscarinic receptors modulate intracellular Ca2+ concentration in hyaline cells of the chicken basilar papilla. Journal of Comparative Physiology 188:381-95.
17. Stone, J.S., Shang, J.L, and Tomarev, S (2003). Expression of Prox1 defines regions of the avian otocyst that give rise to sensory or neural cells. Journal of Comparative Neurology 460:487-502.

18. Stone, JS, Shang, JL, Tomarev, S (2004). Post-mitotic levels of the divergent homeodomain transcription factor, cProx1, predict hair cell fate during avian hair cell regeneration. Developmental Dynamics, 230: 597-614.
19. Bermingham-McDonogh, O, Oesterle, EC, Stone, JS, Hume, CR, Huynh, HM, Hayashi, T. (2006) The expression of Prox1 during mouse cochlear development. Journal of Comparative Neurology 496: 172-86.
20. Cafaro, J, Lee, G-S, Stone, JS (2007). Atoh1 expression defines activated progenitors as well as differentiating hair cells during avian hair cell regeneration. Developmental Dynamics 236:156-170.
21. Daudet, N, Gibson, R, Shang, J, Bernard, A, Lewis, J, Stone, JS (2009). Notch regulation of progenitor cell behavior in quiescent and regenerating auditory epithelium of mature birds. Developmental Biology 326: 86-100.
22. Shang J, Cafaro J, Nehmer R, Stone JS (2010). Supporting cell division is not required for regeneration of auditory hair cells after ototoxic injury in vitro. Journal of the Association for Research in Otolaryngology 11: 203-22.
23. Lin, V, Golub, J, Nguyen, TB, Hume, C, Oesterle, EC, and Stone, JS. (2011). Inhibition of notch activity promotes non-mitotic regeneration of HCs in the adult mouse utricle. Journal of Neuroscience 31: 15329-39.
24. White, PM, Stone, JS, Groves, AK, Segil, N. (2012). EGFR signaling is required for regenerative proliferation in the cochlea: Conservation in birds and mammals. Developmental Biology 363(1):191-200.
25. Lewis, RM, Hume, CR, Stone, JS. (2012) Atoh1 expression and function during auditory hair cell regeneration in post-hatch chickens. Hearing Research 289(1-2):74-85.
26. Golub, JS, Tong, L, Nguyen, T, Hume, C, Palmiter, RD, Rubel, EW, Stone, JS (2012). Hair cell replacement in adult mouse utricles after targeted ablation of hair cells with diphtheria toxin. Journal of Neuroscience 32(43):15093-105.
27. Chonko KT, Jahan I, Stone JS, Wright MC, Fujiyama T, Hoshino M, Fritzsch B, Maricich SM (2013). Atoh1 directs hair cell differentiation and survival in the late embryonic mouse inner ear. Developmental Biology 381(2):401-10.
28. Pujol, R, Pickett, S, Nguyen, T, Stone, JS (2014). Large basolateral processes on type II hair cells comprise a novel processing unit in mammalian vestibular organs. Journal of Comparative Neurology 522(14):3141-59.
29. Bucks, SA, Cox, BC, Vlosich, BA, Manning, JP, Nguyen, TB, Stone, JS (2016, in revision). Supporting cells remove and replace sensory receptor hair cells in a balance organ of adult mice.

Review Papers Published in Refereed Journals

1. Cotanche, DA, Lee, KH, Stone, JS, Picard, DA (1993). Hair cell regeneration in the bird cochlea following noise damage or ototoxic drug damage: A review. Anatomy and Embryology 198:1-18.
2. Stone, JS, Rubel, EW (1996). On a wing and a prayer: Stimulating hair cell regeneration Nature Medicine 2: 1082-3.
3. Stone, JS, Oesterle, EC, Rubel, EW (1998). Recent insights into regeneration of auditory and vestibular hair cells. Current Opinion Neurology 11: 17-24.
4. Stone, JS, Rubel, EW (2000b). Avian auditory hair cell regeneration. Proceedings of the National Academy of Science 97: 11714-11721.

5. Stone, JS and Cotanche, DA. (2007). Hair cell regeneration in the avian auditory epithelium. Review. International Journal of Developmental Biology 51: 633-47.
6. Brignull, H, Raible, DW, Stone, JS (2009). Feathers and Fins: Non-mammalian models for hair cell regeneration. Brain Research 1277:12-23.
7. Rubel, EW, Furrer, SA, Stone JS (2013). A brief history of hair cell regeneration research and speculations on the future. Hearing Research 297:42-51.
8. Wan G, Corfas G, Stone JS (2013). Inner ear supporting cells: Rethinking the silent majority. Seminars in Cell and Developmental Biology 2013 Mar 29.
9. Lewis, R, Rubel, E, Stone, JS (2016). Regeneration of auditory hair cells: A potential treatment for hearing loss on the horizon? Acoustics Today, Summer 2016 Issue.
10. Burns JC, Stone JS (2016). Development and regeneration of vestibular hair cells in mammals. Semin Cell Dev Biol S1084-9521(16):30354-8.

Book Chapters

1. Hirose, K, Westrum, LE, Stone, JS, Zirpel, L, Rubel, EW (1999). Dynamic studies of ototoxicity in mature avian auditory epithelium. In Ototoxicity: Basic Science and Applications. Eds. D. Henderson et al., Thieme Publishers. NY Acad. Sciences Vol.884; pp 389-409.
2. Stone, JS, Oesterle, EO (2008). Cell determinants of proliferation and differentiation during hair cell regeneration. In Auditory Hair Cell Protection and Regeneration, Eds. Richard Salvi, Richard Fay, and Arthur Popper. Springer-Verlag: New York.
3. Stone, JS, Hume, CR (2012). Translational Perspectives: Current Issues in Inner Ear Regeneration. In "Translational Perspectives in Hearing Science". Eds. K. Tremblay and R. Burkhard, Plural Publishing, San Diego.
4. Kelley, M, Stone, JS (2016, in press). Hair cell development and regeneration. In Auditory Hair Cell Protection and Regeneration, Eds. Richard Salvi, Richard Fay, and Arthur Popper. Springer-Verlag: New York

Recent Invited Talks

1. "Mechanisms of hair cell regeneration in chickens". Inner Ear Biology Summer Course, Marine Biology Laboratories, Woods Hole, MA, August 13, 2009.
2. "Non-mammalian vertebrates: Clues toward induction of hair cell regeneration in mammals", 2010 American Audiology Society Meeting, Scottsdale, AZ, March 6, 2010.
3. "Mechanisms of post-traumatic sensory hair cell regeneration in mature birds and rodents". University of Michigan Cell and Developmental Biology Seminar Series, Ann Arbor, MI. October 26, 2010.
4. "Regenerating hair cells", Symposium entitled Molecular Regulation of Primary Sensory Cell Development, Association for Research in Otolaryngology Midwinter Meeting, Baltimore, MD February 20, 2011.
5. "Factors restricting hair cell regeneration in the adult mouse utricle". Distinguished Speaker Seminar Series, House Ear Institute, Los Angeles, CA. May 12, 2011.
6. "Science in action: Careers in biomedical research". Guest Teacher in 6th grade Science at the Overlake School, Redmond, WA. January 30, 2012.
7. "Can you really trust your brain?" Guest Speaker at Expanding Your Horizons (a workshop for promoting science careers in teenage girls), Bellevue College, Bellevue, WA. March 23, 2012.

8. "Factors limiting hair cell regeneration in the vestibular organs of adult mice", National Institutes of Deafness and Other Communication Disorders, Bethesda, MD. May 1, 2012.
9. "Hair cell regeneration as a therapy for hearing and balance dysfunction". University Lions Club, Seattle, WA. April 26, 2012.
10. "Factors limiting hair cell regeneration in the vestibular organs of adult mice ", Gordon Research Conference, Lewiston, ME. July 13, 2012.
11. "Vestibular hair cells in adult mice: New insights into their morphology, homeostasis, and regeneration", Harvard University-MEEI Molecular Biology of the Inner Ear Seminar Series and Mass Eye & Ear's Otolaryngology & Ophthalmology Seminar Series, Boston, MA. December 5, 2013.
12. "Keeping the balance: Maintenance and regeneration of vestibular hair cells in adult mice". Oregon Health Sciences University, Graduate Training Seminar Series, March 17, 2016.