

— Curriculum Vitae —

1. Name:

Susan E. Voss (née Susan E. Lawser)

2. Office Address:

Picker Engineering Program
 Ford Hall
 Smith College
 Northampton, MA 01063
 413-585-7008 FAX: 413-585-7001

Home Address:

89 Ridgewood Terrace
 Northampton, MA 01060
 413-584-1184

3. Education:

Ph.D. 1998 Harvard-MIT Division of Health Sciences and Technology (HST)
 Massachusetts Institute of Technology
 Thesis: Effects of tympanic-membrane perforations on middle-ear sound transmission: measurements, mechanisms, and models.
 Thesis supervisors: John J. Rosowski and William T. Peake

M.S. 1995 Electrical Engineering and Computer Science
 Massachusetts Institute of Technology

B.S. 1991 Engineering, *magna cum laude*
 Brown University

4. Awards and Honors:

2002 Frontiers in Education New Faculty Fellow

1995 Morris Joseph Levin Award for Best Masterworks Oral Thesis Presentation

1992-1998 AT&T Graduate Research Program for Women grant

1991 Tau Beta Pi National Laureate Award

1991 Sigma Xi Society

1990 Tau Beta Pi Society

1990 U.S. Olympic Committee Tuition Assistance Grant

5. Employment and Appointment History:

2007-present	Associate Professor	Smith College Picker Engineering Program
2006-present	Scientist	Neurology Service, Massachusetts General Hospital
2001-2007	Assistant Professor	Smith College Picker Engineering Program
2001-present	Lecturer	Department of Otolaryngology
2000	Instructor	Harvard Medical School

Employment and Appointment History (continued):

2000	Research Scientist	Massachusetts Institute of Technology Research Laboratory of Electronics
1999-present	Research Associate	Massachusetts Eye and Ear Infirmary Department of Otolaryngology
1998–2000	Postdoctoral Associate	Massachusetts Institute of Technology Research Laboratory of Electronics
1998	Recitation and Laboratory Instructor	Massachusetts Institute of Technology Electrical Engineering and Computer Science
1992 (summer)	Senior Technical Associate	AT&T Bell Laboratories Acoustics Research Group

6. Grants Received and Consulting Work:**Grants**

2007-2012	National Science Foundation CAREER Award (\$400,000) “CAREER: Acoustic energy flow through normal and abnormal middle ears”
2007	Subcontract from Mimosa Acoustics, NIH SBIR (\$36,617) “Non-invasive instrument for monitoring changes in intracranial pressure”
2005-2008	NIH 1 R15 DC007615-01 (\$191,157) “Middle-ear assessment via reflectance measurements”
2001	InterMath MiniGrant (NSF DUE-9555414) through the Consortium for Mathematics and Its Applications (\$3000).
1999	Harvard Medical School 50th Anniversary Scholars in Medicine Fellowships (\$25,000)

Consulting

2010	Consultant to Hearium Labs
2004-2005	Consultant to Natus Medical, Inc., San Carlos, CA.
2004	Consultant to SonaMed Corp., Waltham, MA.
2001-2005	Consultant on NIH R01 Grant Understanding Otoacoustic Emissions, PI Christopher Shera

7. Publications:

** Denotes undergraduate author

Refereed Publications

1. Merchant** GR, Horton, NJ, **Voss SE**. “Normative reflectance and transmittance measurements on healthy newborn and one-month old infants”. *Ear and Hearing*. 2010; 31:746-754.
2. **Voss SE**, Adegoke** MF, Horton, NJ, Sheth KN, Rosand J, Shera CA. “Posture systemati-

- cally alters ear-canal reactance and DPOAE properties.” *Hearing Research*. 2010; 263:43-51.
3. **Voss SE**, Horton NJ, Woodbury RR**, Sheffield KN**. “Sources of variability in reflectance measurements on normal cadaver ears.” *Ear and Hearing*. 2008; 29:651-665.
 4. **Voss SE**, Rosowski JJ, Merchant SN, Peake WT. “Non-ossicular signal transmission in human middle ears: Experimental assessment of the acoustic route with perforated tympanic membranes” *J. Acoust. Soc. Am.* 2007; 122:2135-2153.
 5. **Voss SE**, Horton NJ, Woodbury RR**, Shea CA**, Smith AH**. “Sources of variability in reflectance measurements on normal human ears.” In: Huber A. and Eiber A., editor. *Proceedings of the 4TH International Symposium on Middle Ear Mechanics in Research and Otolaryngology*; 2006 July 27-30, Zurich, Switzerland. World Scientific; 2007. p. 78-86.
 6. **Voss SE**, Horton NJ, Tabucchi** THP, Folowosele** F, Shera CA. “Posture-induced changes in distortion-product otoacoustic emissions and the potential for noninvasive monitoring of changes in intracranial pressure” *Neurocritical Care* 2006; 04:251-257.
 7. Mehta RP, Rosowski JJ, **Voss SE**, O’Neil E, Merchant SN. “Determinants of hearing loss in perforations of the tympanic membrane” *Otolaryngology and Neurotology* 2006; 27:136-143.
 8. **Voss SE**, Herrmann, BS. “How does the sound pressure generated by circumaural, supraaural, and insert earphones differ for adult and infant ears?” *Ear and Hearing* 2005; 26:636-650.
 9. Stepp** CE, **Voss SE**. “Acoustics of the human middle-ear air space” *J. Acoust. Soc. Am.* 2005; 118: 861-871.
 10. **Voss SE**, Shera CA. “Simultaneous measurement of middle-ear input impedance and forward/reverse transmission in cat” *J. Acoust. Soc. Am.* 2004; 116:2187-2198.
 11. **Voss SE**, Ellis, GW. “Applying learner-centered pedagogy to an engineering circuit-theory class at Smith College”, *Proceedings of Frontiers in Education (FIE)* 2002.
 12. **Voss SE**, Rosowski JJ, Merchant SN, Peake WT. “Middle-ear function with tympanic-membrane perforations. I. Measurements and mechanisms.” *J. Acoust. Soc. Am.* 2001; 110:1432-1444.
 13. **Voss SE**, Rosowski JJ, Merchant SN, Peake WT. “Middle-ear function with tympanic-membrane perforations. II. A simple model.” *J. Acoust. Soc. Am.* 2001; 110:1445-1452.
 14. **Voss SE**, Rosowski JJ, Merchant SN, Peake WT. “How do tympanic-membrane perforations affect human middle-ear sound transmission?” *Acta Otolaryngol.* 2001; 121:169-173.
 15. **Voss SE**, Rosowski JJ, Merchant SN, Peake WT. “Acoustic responses of the human middle ear.” *Hearing Research*. 2000; 150:43-69.
 16. **Voss SE**, Rosowski JJ, Merchant, S.N., Thronton, A.R., Shera CA, Peake WT. “Middle-ear pathology can affect the ear-canal sound pressure generated by audiologic earphones.” *Ear and Hearing*. 2000; 21:265-274.
 17. **Voss SE**, Rosowski JJ, Shera CA, Peake WT. “Acoustic mechanisms that determine the ear-canal sound pressures generated by earphones.” *J. Acoust. Soc. Am.* 2000; 107:1548-1565.

18. Merchant SN, Ravicz ME, **Voss SE**, Peake WT, Rosowski JJ. "Middle ear mechanics in normal, diseased and reconstructed ears." *Journal of Laryngology and Otology*. 1998; 112:715-731.
19. Merchant SN, Ravicz ME, Puria S, **Voss SE**, Whittemore KR, Peake WT, Rosowski JJ. "Analysis of middle-ear mechanics and application to diseased and reconstructed ears." *Am. J. Otol.* 1997; 18:139-154.
20. **Voss SE**, Rosowski JJ, Peake WT. "Is the pressure difference between the oval and round windows the effective acoustic stimulus for the cochlea?" *J. Acoust. Soc. Am.* 1996; 100:1602-1616.
21. **Voss SE**, Allen J. "Measurement of acoustic impedance and reflectance in the human ear canal." *J. Acoust. Soc. Am.* 1994; 95:372-384.

In preparation

1. **Voss SE**, Horton, NJ, Adegoke** M, Bauer** JT, Lim** CM, Shera CA. "Investigation of stimulus parameters to maximize magnitudes and minimize variability of low-frequency DPOAE measurements" Status: Manuscript complete and under revision by coauthors for submission to *J. Acoust. Soc. Am.* To be submitted summer 2011.
2. **Voss SE**, Merchant**GR, Horton NJ. "Effects of middle-ear pathologies on energy reflectance measurements on human cadaver ears". Status: Manuscript in progress. Submitted to *Ear and Hearing* December 2010.
3. **Voss SE**, Huber, AM, Shera, CA. "Physiology of the normal and the diseased middle ear". Invited book chapter for a middle-ear book in the Springer-Verlag "Springer Handbook of Auditory Research" series. Completion deadline summer 2011.

Other Publications

1. **Voss SE**, Rosowski JJ, Merchant SN, Peake WT. "Correlation of impedance at the TM with stapes velocity? Reply to the letter of D. H. Keefe." *Letter to the Editor, Hearing Research*. 2001; 159:153-154.
2. Merchant SN, Ravicz ME, **Voss SE**, Puria S, Peake WT, Rosowski JJ. "Middle ear mechanics in normal, diseased and reconstructed ears." In: Huttenbrink KB, editor. *Proceedings of the International Workshop on Middle Ear Mechanics in Research and Otosurgery*; 1996 Sept 19-22; Dresden, Germany. Dresden University of Technology; 1997. p. 175-182.
3. Rosowski JJ, Merchant SN, Ravicz ME, **Voss SE**, Caradonna D, Cunningham MJ, Peake WT. "Analysis of Acoustic Mechanisms in Middle-Ear Pathology and Reconstruction." In: Huttenbrink KB, editor. *Proceedings of the International Workshop on Middle Ear Mechanics in Research and Otosurgery*; 1996 Sept 19-22; Dresden, Germany. Dresden University of Technology; 1997. p. 183-190.

Conference Abstracts

1. **Voss SE**, Merchant GR**, Horton NJ. "Effects of middle-ear disorders on ear-canal reflectance measures in human cadaver ears", Spring meeting of the Acoustical Society of America, 2010

2. Amadei EA**, Herrmann, BS, Horton NJ, Gibbons S, Theisen M, Vidal C, Kujawa SG, **Voss SE**. “Reflectance Measurements on Newborn Ears with Fluid”, American Auditory Society Abs. 2010.
3. **Voss SE**, Adegoke** MF, Sheth KN, Horton, NJ, Rosand J, Shera CA. “Detecting changes in intracranial pressure using reflectance and otoacoustic emissions” Middle-Ear Mechanics in Research and Otology, Fifth International Symposium, Stanford University, June 2009.
4. Merchant GR**, **Voss SE**, Horton NJ. “Normative reflectance measurements on healthy newborn and one-month old infants”, American Auditory Society Abs. 2009.
5. **Voss SE**, Moonshiram D**, Horton NJ. “Effects of middle-ear pathologies on energy reflectance measurements”, American Auditory Society Abs. 2008.
6. Adegoke MF**, **Voss SE**, Horton NJ, Raza Y**, Shera CA. “DPOAE measurement analysis in the complex plane”, American Auditory Society Abs. 2008.
7. Sheth KN, Horton N, Shera C, Rosand J, **Voss SE** “Detecting changes in intracranial pressure non-invasively using oto-acoustic emissions”. Intracranial Pressure Conference. July 2007.
8. **Voss SE**, Horton NJ, Woodbury RR**, Sheffield, KN**. “Sources of variability in reflectance measurements on normal cadaver ears”, American Auditory Society Abs. 2007.
9. Lim CM**, Bauer JT**, Horton NJ, **Voss SE**. “Investigation of parameters that maximize low-frequency DPOAEs”, American Auditory Society Abs. 2007.
10. **Voss SE**, Horton NJ, Woodbury RR**, Shea CA**, “Sources of variability in reflectance measurements on normal human ears”, Middle-Ear Mechanics in Research and Otology, Fourth International Symposium, University Hospital Zurich, July 2006.
11. Woodbury** RR, Horton NJ, **Voss SE**. “Effect of measurement location on reflectance measurements in human cadaver ears”, American Auditory Society Abs. 2006.
12. **Voss SE**, Horton NJ, Tabucchi THP**, Folowosele F**, Shera CA. “Noninvasive Detection of Changes in Intra-Cranial Pressure Using Distortion-Product Otoacoustic Emissions”, Assoc. Res. Otolaryngol. Abs. 2006.
13. Miller A, Shera CA, **Voss SE**, “Analysis of a Technique for Measuring the Transmission Matrix of the Middle Ear”, Assoc. Res. Otolaryngol. Abs. 2006.
14. **Voss SE**, Herrmann BS. “Sound pressures generated by earphones: Adult versus infant ears”, American Auditory Society Abs. 2005.
15. Stepp** CE, **Voss SE**. “Acoustics of the middle-ear air space in human ears”, American Auditory Society Abs. 2004.
16. **Voss SE**, Shera CA. “Simultaneous measurement of DPOAEs, middle-ear input impedance, and forward/reverse middle-ear transmission in cat”, Assoc. Res. Otolaryngol. Abs. 2002; 585:153.
17. Shea** CA, **Voss SE**. “Inter-subject vs. intra-subject variability in ear-canal impedance and reflectance of living human ears.”, Assoc. Res. Otolaryngol. Abs. 2002; 589:154.

18. **Voss SE**, Rosowski JJ, Merchant SN, Peake WT. “How do tympanic-membrane perforations affect human middle-ear sound transmission?” Collegium Otorhinolaryngologicum Amicitiae Sacrum Abstracts 2000; 7:55.
19. **Voss SE**, Rosowski JJ, Merchant SN, Thornton AR, Peake WT. “How do middle-ear pathologies affect sound pressures generated by earphones?” Assoc. Res. Otolaryngol. Abs. 1999; 802:202.
20. **Voss SE**, Rosowski JJ, Merchant SN, Peake WT. “How do tympanic membrane perforations cause conductive hearing loss?” Assoc. Res. Otolaryngol. Abs. 1998; 263:66.
21. **Voss SE**, Rosowski JJ, Merchant SN, Peake WT. “How do tympanic membrane perforations affect human middle-ear sound transmission?” Assoc. Res. Otolaryngol. Abs. 1997; 194:49.
22. Ravicz ME, **Voss SE**, Merchant SN, Rosowski JJ. “An upper bound on human-cochlea compressibility.” Assoc. Res. Otolaryngol. Abs. 1996; 227:57.
23. **Voss SE**, Rosowski JJ, and Peake WT. “Is the pressure difference between the oval and round windows the stimulus for cochlear responses?” Assoc. Res. Otolaryngol. Abs. 1994; 347:87.

8. Concerts, Performances, and Exhibitions:

None

9. Scholarly Lectures and Other Professional Presentations:

Invited Presentations

1. 2010 Massachusetts Eye and Ear Infirmary Audiology Department Continuing Education Unit: “Ear-canal based energy reflectance: The detection of fluid in newborn ears.” Boston, Ma.
2. 2008 Massachusetts Eye and Ear Infirmary Audiology Department Continuing Education Unit: “Ear-canal based energy reflectance: Can we detect fluid in newborn ears? ” Boston, Ma.
3. 2007 CIMIT Forum (Center for Integration of Medicine & Innovative Technology) “Detecting Changes in Intracranial Pressure Using Emissions from the Inner Ear”. Massachusetts General Hospital, Boston, MA
4. 2005 HST (r)evolution: Celebrating 35 years of bench to bedside: HST Impact – Translational Education: From Boston to Beyond. Harvard Medical School, Boston, Ma.
5. 2001 American Speech-Language-Hearing Association “Earphone calibration: A problem in the assessment of hearing in pathological ears”. Presented by Dr. John J. Rosowski
6. 2000 Collegium Oto-rhino-laryngologicum Amicitiae Sacrum Meeting “How do tympanic-membrane perforations affect human middle-ear sound transmission?” Washington D.C.

7. 1999 The Second International Symposium on Middle-ear Mechanics in Research and Otosurgery: “Mechanisms of hearing loss in tympanic membrane perforations” Sponsored by the Harvard Medical School Department of Continuing Education and the Massachusetts Eye and Ear Infirmary Department of Otolaryngology.
8. 1999 The Second International Symposium on Middle-ear Mechanics in Research and Otosurgery: “Earphone calibration: a potential problem in the assessment of hearing in post-surgical ears” Sponsored by the Harvard Medical School Department of Continuing Education and the Massachusetts Eye and Ear Infirmary Department of Otolaryngology.
9. 1997 The International Otopathology Society, Boston, Massachusetts “How do tympanic-membrane perforations cause conductive hearing loss?”

Seminars and Colloquia

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|------|--|
| 2010 | City University of New York Hearing Science Laboratory
“Reflectance measures on human cadaver ears: Sources of variability and effects of middle-ear disorders” |
| 2008 | Johns Hopkins University Center for Hearing and Balance Seminar:
“Using otoacoustic emissions to monitor changes in intracranial pressure” |
| 2007 | MIT Speech Communication Group Seminar:
“Detecting changes in intra-cranial pressure using otoacoustic emissions from the ear” |
| 2007 | Liberal Arts Luncheon Talk at Smith College:
“It’s not exactly brain surgery: Monitoring intracranial pressure through the ear” |
| 2005 | Grand Rounds Talk at Children’s Hospital, Boston, Ma
“Detecting changes in intra-cranial pressure using emissions from the inner ear” |
| 2005 | Sigma Xi Talk at Smith College:
“Detecting changes in intra-cranial pressure using emissions from the inner ear” |
| 2005 | Massachusetts Eye and Ear Infirmary Eaton Peabody Laboratory
Work in Progress Seminar:
“Auditory-Based Detection of Changes in Intra-cranial Pressure with DPOAEs” |
| 2004 | Massachusetts Eye and Ear Infirmary Audiology Department Seminar:
“Earphone calibration: A problem in the assessment of hearing in pathological ears” |
| 2004 | New Haven Smith College Alumnae Club:
“Engineering and the Liberal Arts at Smith College” |
| 2001 | Physics Colloquium at Mount Holyoke College:
“Did Horton Hear the Who?” |
| 2001 | Sigma Xi Talk at Smith College:
“How Horton Heard the Who” |
| 2000 | Invited Talk at Smith College:
“Anchoring Engineering Science at Smith College” |
| 2000 | Invited Talk at Smith College:
“Better Hearing through Engineering” |
| 2000 | Invited Hearing Research Seminar at Boston University: |

- “Effects of tympanic-membrane perforations on middle-ear sound transmission: Measurements, mechanisms, and models”
- 1998 HST Biomedical engineering seminar (HST 590):
“Effects of tympanic-membrane perforations on middle-ear sound transmission”
- 1996 Invited Lecture at MIT’s Electrical Engineering and Computer Science program:
“How to Write Your Master’s Thesis”
- 1994 HST Biomedical engineering seminar (HST 590):
“Is the pressure difference between the oval and round windows of the cat cochlea the stimulus for cochlear response?”

10. Other Professional Activities:

- 2010 Special Session Co-Organizer for the Joint Meeting 159th Meeting of the Acoustical Society of America and NOISE-CON 2010.
Session title: “Engineering Acoustics and Psychological and Physiological Acoustics: Acoustic Impedance of the Ear”
- 2009 Scientific Committee Member for the 5th International Middle Ear Mechanics in Research and Otolaryngology meeting (Stanford University)
- 2008 Brown University Computer Engineering Advisory Board Member
- 2007, 2002 AUD Study Section Ad-hoc Member NIDCD/NIH
- 2005 The Institute of Electrical and Electronics Engineers
Engineering in Medicine and Biology Society Education Committee
- 2001-present Editor-at-large for *Ear and Hearing*
- Regular Reviewer: *Journal of the Acoustical Society of America*
Ear and Hearing
- Occasional Reviewer: *Journal of Speech, Language and Hearing Research*,
Hearing Research,
Journal of Engineering Education,
BioMed Central Ear, Nose, and Throat Disorders
Medical Engineering & Physics
Journal of Rehabilitation Research and Development
Journal of Applied Physiology
Computer Medical Imaging and Graphics
Journal of the Association for Research in Otolaryngology
Clinical Otolaryngology
International Journal of Audiology
Journal of Biomechanics

11. Professional Memberships:

- | | | |
|--------------|---|---------------|
| 2002-present | American Auditory Society | Member |
| 2001-2007 | The Institute of Electrical and Electronics Engineers | Member |
| 2007-present | The Institute of Electrical and Electronics Engineers | Senior Member |

2001-present	American Society for Engineering Education	Member
1999-present	Acoustical Society of America	Member
1999-present	Association for Research in Otolaryngology	Member

12. Committee Memberships and other College Service:

Smith College

Smith College Committee on Faculty Compensation and Development (elected)	2007-2010
Smith College Transportation Committee (appointed)	2007-2010
Smith College Grievance Committee (elected)	2006
Quantitative Skills Committee (appointed)	2005-2009
Chair (appointed)	2008-2009
Molecular Sciences & Engineering Building User's Group Committee (appointed)	2004-2007
Quantitative Skills Committee (appointed)	2001-2002
Science Planning Committee (appointed)	2001-2002

Picker Engineering Program

Clare Boothe Luce Assistant Professor Search Committee	2001-2002
Picker Engineering Program Director Search Committee	2004-2005
Creator and faculty advisor of Engineering Honor Society Tau Beta Kappa	2003-2010
Chair: Picker Engineering Program Curriculum Operations Committee	2006-2009
Picker Engineering Program laboratory instructor search committee member	2006
Picker Engineering Program assistant professor search committee member	2006-07
Picker Engineering Program assistant professor search committee member	2007-08

Student Advising	Number Advisees	Pre-major	Major	
Smith College	15	11	4	2001-2002
	16	10	6	2002-2003
	11	0	11	2003-2004
	14	0	14	2004-2005
	13	6	7	2005-2006
	9	6	3	2006-2007
	12	8	4	2007-2008
	9	2	7	2008-2009
	4 *(sabbatical)	0	4	2009-2010

Five-College Community

Search committee member, Gupta Chaired Professorship	2006-2007
University of Massachusetts Electrical and Computer Engineering Department	

Harvard-MIT Division of Health Sciences and Technology (HST)

HST Admissions Committee	2000	Member
HST Admissions Committee	1995	Student Member
Curriculum Committee	1993-1995	Student Member
HST's Speech and Hearing Sciences Program		

Biomedical Engineering
and Physical Sciences Committee

1992-1993

Student Member

13. Teaching Record:

Course Teaching, Smith College

2009-10	Engineering 100: Engineering for Everyone (Introduction to Engineering, 2 sections)
2008-09	EGR 320: Signals and Systems and Signals and Systems Laboratory
2008-09	Engineering 100: Engineering for Everyone (Introduction to Engineering)
2008-09	Engineering 191: Engineering Forum
2007-08	EGR 320: Signals and Systems and Signals and Systems Laboratory
2007-08	Engineering 220: Circuit Theory and Circuit Theory Laboratory
2007-08	Engineering 191: Engineering Forum
2006-07	Engineering 390: Acoustics
2006-07	Engineering 220: Circuit Theory and Circuit Theory Laboratory
2005-06	Engineering 100: Engineering for Everyone
2005-06	Engineering 380: Neuroengineering
2005-06	Engineering 320: Signals and Systems
2005-06	Engineering 321: Digital Signal Processing
2004-05	Engineering 320: Signals and Systems
2003-04	Engineering 220: Circuit Theory
2003-04	Engineering 380: Neuroengineering
2003-04	Engineering 320: Signals and Systems
2003-04	Engineering 400: Digital Signal Processing
2002-03	Engineering 100: Introduction to Engineering
2002-03	Engineering 220: Circuit Theory and Circuit Theory Laboratory
2001-02	Engineering 100: Introduction to Engineering
2001-02	Engineering 320: Signals and Systems
2001	Engineering 220: Circuit Theory and Circuit Theory Laboratory

Honors Theses Supervised, Smith College

2009-10	Modupe Adegoke: Novel method of analysis for DPOAE magnitude and phase
2009-10	Elizabeth Amadei: Reflectance Measurements on Newborn Ears with Fluid
2008-09	Gabrielle Merchant: Normative reflectance measurements on healthy newborn babies
2005-06	Rebecca Woodbury: Effect of measurement location on reflectance measurements in human cadaver ears
2005-06	Yamama Raza: Auditory-based detection of changes in intracranial pressure: DPOAE, TEOAE, and impedance measurements
2004-05	Fope Folowosele: Auditory-based detection of changes in intracranial pressure: Control of middle-ear static pressure
2004-05	Taronne Tabucchi: Auditory-based detection of changes in intracranial pressure: Otoacoustic emissions measurements
2004-05	Jie Zheng: Development of a personalized equalizer for people with presbycusis
2003-04	Cara Stepp: The acoustics of the human middle-ear air space
2001-02	Rebecca Segal: Building a data acquisition system for research on the auditory system

Special Studies and Student Projects Supervised, Smith College

- 2001 Meghan Taugher '04: Measurement of reflectance in living human ears
- 2001-02 Caitlyn Shea '04: Measurement and analysis of reflectance in living human ears
- 2002 Fatima Toor '04: Development of a novel system to measure hearing thresholds
- 2003 Susan Strom '04: Set up of system to measure impedance/reflectance on human cadaver ears
- 2003 Meraia Racule '06: Recording of audiograms via traditional and novel equipment
- 2004-05 Krystal Locke '05: Do air- and bone-conducted stimuli elicit the same cochlear response?
- 2005 Eleanor Ory '06: Calculation of ear-canal area from impedance measurements
- 2005 Elyse Steiner '07: Development of a system to couple sound and static pressure to the ear canal
- 2006 Ashley Smith '07: Statistical analysis of human auditory responses: Emissions, impedances, and reflectances
- 2006 Kathryn Sheffield '07: Measurements of reflectance on human cadaver ears with middle-ear pathologies
- 2006 Chan Monopisey Lim '08: Auditory-based detection of changes in intracranial pressure: Measurements on hospital ICU patients
- 2006 Diana Chiyangwa '08: Auditory-based detection of changes in intracranial pressure: Measurements on hospital ICU patients
- 2006 Jillian Bauer '09 Work Study: Optimization of parameters for low-frequency DPOAE measurements
- 2006 Dooshaye Moonshiram '08 Special Studies: Application of noise-cancellation technologies to ICU DPOAE measurements
- 2007 Dooshaye Moonshiram '08 Special Studies: Modelling the middle ear
- 2007 Dooshaye Moonshiram '08: Measurements of reflectance on human cadaver ears with middle-ear pathologies
- 2007 Jillian Bauer '09: Auditory-based detection of changes in intracranial pressure: Measurements on hospital ICU patients
- 2007 Modupe Adegoke '10: Auditory-based detection of changes in intracranial pressure: Measurements on hospital ICU patients
- 2007 Jillian Bauer '09: "Optimization of parameters for low-frequency DPOAE measurements"
- 2007-08 Modupe Adegoke '10: "Optimization of parameters for low-frequency DPOAE measurements" and "Analysis of DPOAE phase angles related to detection of changes in ICP"
- 2007-08 Hannah Dym '11: STRIDE STUDENT: "Optimization of a probe for measurement of energy reflectance in newborn ears"
- 2008 Gabrielle Merchant '09 Measurements of reflectance on human cadaver ears with middle-ear pathologies
- 2009 Emma Dalton '10 Acoustics
- 2010 Sanita Dhaubanjari '13 Use of the Parallax Propeller microcontroller within a biomedical engineering course for high school students

Course Teaching, MIT Department of Electrical Engineering and Computer Science

- 1998 Recitation Instructor under Professor Dennis Freeman
 6.021J Quantitative Physiology: Cells and Tissues
- 1994 Teaching Assistant under Professor Jacob White
 6.003 Signals and Systems

Course Teaching, Harvard-MIT Division of Health Sciences & Technology

- 1999 Instructor with Dr. Christopher Shera
 HST-750 Modeling Issues in Speech and Hearing
- 1994 Teaching Assistant under Professor William Peake
 HST-714J Acoustics of Speech and Hearing