**Fatima T. Husain**

1. **Personal History and Professional Experience**

**A. Educational Background**

University of Mumbai, Mumbai, India, Computer Engineering, Bachelor of Engineering, 1992

North Dakota State University, Fargo, ND, Computer Science, MS, 1995

Boston University, Boston, MA, Cognitive and Neural Systems, PhD, 1999

**B. List of Academic Positions since Final Degree**

**Post-Doctoral Fellow** (1999-2001), National Institute on Deafness and Other Communication Disorders, National Institutes of Health, Bethesda, MD

**Research Fellow** (2001-2007), National Institute on Deafness and Other Communication Disorders, National Institutes of Health, Bethesda, MD

**Assistant Professor** (2008-2014), Department of Speech and Hearing Science, University of Illinois at Urbana-Champaign, Champaign, IL

**Part-Time Faculty** (2008-present), Beckman Institute for Advanced Science and Technology, University of Illinois at Urbana‑Champaign, Champaign, IL

**Faculty Affiliate** (2008-present), Neuroscience Program, University of Illinois at Urbana‑Champaign, Champaign, IL

**Faculty Affiliate** (2010-present), Center on Health Aging and Disability, College of Applied Health Sciences, University of Illinois at Urbana-Champaign, Champaign, IL

**Faculty Affiliate** (2014-present),Computational Science and Engineering, College of Engineering, University of Illinois at Urbana-Champaign, Champaign, IL

**Associate Professor** (2014-2020),Department of Speech and Hearing Science, University of Illinois at Urbana-Champaign, Champaign, IL

**Professor** (2020-present),Department of Speech and Hearing Science, University of Illinois at Urbana-Champaign, Champaign, IL

**C. Other Professional Employment**

**Graduate Teaching Assistant**, 1992-1995, Department of Computer Science, North Dakota State University, Fargo, ND

**Graduate Research Assistant**, 1994, Very large databases for distributed systems, Department of Computer Science, North Dakota State University, Fargo, ND, Supervisor: Dr. William Perrizo

**Graduate Research Assistant**, 1996-1999, Speech perception and language acquisition, Department of Cognitive and Neural Systems, Boston University, Boston, MA, Supervisor: Dr. Frank Guenther

**Consultant**, 1999, BU-MIT project on speech perception using magnetoencephalography, Department of Cognitive and Neural Systems, Boston University, Boston, MA

**D. Honors, Recognitions, and Outstanding Achievements**

1990 First in class, Thadomal Shahani Engineering College, University of Mumbai, India

1992-1995 Graduate Teaching Fellowship, Department of Computer Science, North Dakota State University

1995-1999 Graduate Research Fellowship, Department of Cognitive and Neural Systems, Boston University

2003-2007 Meritorious Research Award, National Institute on Deafness and Other Communication Disorders, National Institutes of Health (1 award/year)

2002-2004 Meritorious Group Research Award, National Institute on Deafness and Other Communication Disorders, National Institutes of Health (1 award/year)

2008 Distinguished Mentor Award, Post-baccalaureate Intramural Research Training Award (IRTA) Committee, National Institutes of Health

2009  *Lessons for Success Research Conference: Developing the Emerging Scientist*, American Speech-Language and Hearing Association (full funding to attend)

2009 *ERP Boot Camp*, Center for Mind and Brain, University of California-Davis (full funding to attend)

2011-2012 Fellow, Center for Advanced Study, UIUC

2012-present Member, Scientific Advisory Board, American Tinnitus Association

2015-2017 Member, Tinnitus Network, European Cooperation in Science and Technology

2016 Research Mentoring-Pair Travel Award (RMPTA), American Speech-Language and Hearing Association

2016-2017 Fellow, Center for Wounded Veterans in Higher Education, UIUC

2016-2017 Adjunct Faculty, Department of Otolaryngology, Groningen University Medical Center, Groningen, The Netherlands

2017 Graduate Student Mentor Award, College of Applied Health Sciences, UIUC

2019-2020 Associate, Center for Advanced Study, UIUC

2021-2024 Chair, Scientific Advisory Committee, American Tinnitus Association

**E. Invited Lectures and Invited Conference Presentations**

*International*

1. **Husain, F.T.** (2001). *Understanding auditory pattern recognition through experiments and modeling*. Department of Computer and Information Sciences, University of Hyderabad, India, December 27, 2001
2. **Husain, F.T.,** (2012). Imaging Noise: Research at the intersection of Hearing, Aging, and Disorder, *Auditory Seminar*, Behavioral and Cognitive School of Neurosciences, University of Groningen, Netherlands, 8 June. <http://www.dbaskent.org/dB_SPL/Auditory_seminars.html> . The monthly seminar series hosts both national and international speakers.
3. **Husain, F.T.** (2016). *Resting state functional connectivity studies of tinnitus*. Tinnitus Neurocognitive Approaches from Diagnostic to Rehabilitation” (TiNA-D2R), a 3-Day Workshop jointly organized by Institute of Mathematics and Computer Science, University of Sao Paulo, Faculty of Medicine, University of Sao Paulo, Instituto Ganz Sanchez and the University of Social Welfare and Rehabilitation Sciences, Iran, Sao Paulo, Brazil, May 20-22, 2016.
4. **Husain, F.T.** (2016). *Tinnitus heterogeneity: Neural correlates from rest and task-based fMRI*. Seminar Series, Institute on Neuroscience, Newcastle University, UK, November 2, 2016.
5. **Husain, F.T.** (2016). *Tinnitus heterogeneity: Neural correlates from rest and task- based fMRI.* ENT Seminar series, University Medical Center Groningen, Groningen, Netherlands, December 9, 2016.
6. **Husain, F.T.** (2017). *Neural networks of tinnitus in humans: Elucidating severity and habituation*, ***Keynote lecture*** at the Hearing and Balance 2017 conference, Sao Paulo, Brazil, April 6-8, 2017.
7. **Husain, F.T.** (2017). *Auditory and extra-auditory networks implicated in tinnitus: Evidence from fMRI studies.* International Symposium on Hearing Loss and Tinnitus – Celebrating the Work of Jos J. Eggermont, Banff, Canada, September 10, 2017.
8. **Husain, F.T.** (2017). *Neuroplasticity in tinnitus: Evidence from resting state FMRI studies*. ***Keynote lecture*** at the Eighth AFREPA (Association Française des Équipes Pluridisciplinaires en Acouphènologie) conference, Lyon, France, September 15-16, 2017.
9. **Husain, F.T.** (2018). *Patterns and connectivity in neural networks: Leveraging clustering to better understand tinnitus*. ***Keynote lecture*** at the 2018 Tinnitus Research Initiative / TINNET conference, Regensburg, Germany, March 14-16, 2018.
10. **Husain, F.T.** (2019). *Neural Networks of Tinnitus: Insights from Resting State Functional MRI*. Invited talk given at Ribeirão Preto Medical School, University of São Paulo, November 25th, Ribeirão Preto, Brazil.
11. **Husain, F.T.** (2019). *Brain Neuroimaging - What Neurotransmitters and Signaling Pathways tell us about Tinnitus Treatment?* ***Keynote Lecture*** given at the II Tinnitus Brotherhood Conference – HCFMUSCP – Treatment in the Spotlight, University of São Paulo, Brazil, November 28-29, 2019.
12. **Husain, F.T.** (2020). *Understanding tinnitus severity and heterogeneity using brain imaging*. Lecture given at the annual meeting of the British Tinnitus Association, October 4, 2020. (via Zoom).
13. **Husain, F.T.** (2021). *Brain Imaging Correlates of Tinnitus Severity*. Lecture given at the annual meeting of the Chilean ENT organization / Congreso Otolaryngologio, November 11, 2021. (via Zoom).
14. **Husain, F.T.** (2021). *A Multi-Modal Brain Imaging Study of Misophonia Examining its Audiological and Psychological Aspects* . Misophonia Research Foundation symposium, November 11-12, Chicago USA.
15. **Husain, F.T.** (2021). Panel member on *Women, Gender Minorities, and Allies-in-Science Roundtable* -- 4th Annual Women and Allies in Science Roundtable Discussion, Association for Research in Otolaryngology, January 11, 2022. (via Zoom).

*National*

1. **Husain, F.T.** (2001). *Auditory perception and categorization: Experiments and modeling*. Cognitive Neuroscience of Language Lecture Series, Cognitive Neuroscience Laboratory, Linguistics Department, University of Maryland, College Park, MD, Nov 15, 2001. Invited to be part of monthly seminar series.
2. Horwitz, B. and **Husain, F.T.** (2003). *Using Neural Modeling and Functional Neuroimaging to Study the Neural Basis of Auditory Object Processing*, Annual Meeting of the Acoustical Society of America, Nashville, TN. J. Acoustical Soc. Am. 113: 2209-2210. One of four invited podium presentations at a session on speech perception.
3. **Husain, F.T.** and Horwitz, B. (2004). *Neural Bases of Categorization of Simple Sounds.* From Sound to Sense: Fifty+ Years of Discoveries in Speech Communication, Massachusetts Institute of Technology, Cambridge, MA, June 11-13, 2004. Invited to speak at the 50th anniversary celebrations of the works of Prof. Kenneth Stevens of MIT, who was on my PhD committee.
4. **Husain, F. T.** (2005). *Neural Modeling and Imaging of Auditory Perception: Application to Auditory Continuity Illusion*, MIT Speech Group Seminar Series, Massachusetts Institute of Technology , Cambridge, MA, April 13, 2005.
5. **Husain, F.T.** (2006). *Functional imaging studies of categorical and sensory processing of simple sounds and sign language gestures*, Hearing and Speech Sciences Seminar, University of Maryland, July 12, 2006.
6. **Husain, F.T.** (2006). *Functional imaging studies of categorical processing of simple sounds and sign language gestures*, First Wednesday Research Seminars, Gallaudet Research Institute, Gallaudet University, Sep 13, 2006.
7. **Husain, F.T.** (2008). *The Effect of Pleasant and Unpleasant Sounding Music in Persons with Hearing Loss and Tinnitus: an fMRI Study*, Otolaryngology and Surgery Branch, Southern Illinois University Medical School, Springfield, IL, August 19 2008.
8. **Husain, F.T. (2010).** Organized a panel session on*Neuroimaging in tinnitus: Mechanisms and Networks,* 4th International Tinnitus Research Initiative (TRI) Conference, Dallas, TX, June 8-11, 2010. Invited by TRI to organize a session on latest brain imaging results of tinnitus, was responsible for selecting topics, inviting speakers, introducing the session and moderating the discussion.
9. **Husain, F.T.** (2011). *Functional and Anatomical Neural Networks of Chronic Tinnitus and Hearing Loss*, International State-of-the-Science meeting on Blast-Related Tinnitus, Department of Defense Blast Injury Research Program, Chantilly, VA, November 15-16, 2011. Was one of 20 (out of 74) submitted abstracts to be invited to speak to scientists and military personnel.
10. **Husain, F.T.** (2015). *Indices of tinnitus severity: correlates from rest and task-based fMRI.* National Center for Rehabilitative Auditory Research (NCRAR) Seminar Series, NCRAR, VA Portland Health Care System, Portland, OR, November 6, 2015.
11. **Husain, F.T.** (2017). *Using resting state functional connectivity to investigate neural correlates of tinnitus.* NIDCD Seminar, National Institutes of Health, Bethesda, MD, February 15, 2017.
12. **Husain, F.T.** (2017). *Brain imaging and modeling in auditory disorders*. Brain Imaging and Modeling: Research at NIH and Beyond – Conference Celebrating the work of Barry Horwitz, NIDCD, NIH, Bethesda, MD, September 8, 2017.
13. **Husain, F.T.** (2017). *Using brain imaging to understand the neural correlates of tinnitus severity.* 8th biennial National Center for Rehabilitative Auditory Research (NCRAR) conference on Translating Tinnitus Research Findings into Clinical Practice, Portland, OR, October 4-6, 2017.
14. **Husain, F.T.** (2017). *Bringing mindfulness into your clinical practice: Evidence from current research.* Invited Short Course for the annual meeting of the American Speech-Language-Hearing Association, Los Angeles, CA, November 9-11, 2017.
15. **Husain, F.T.** (2018)**.** *The role of the attention system in hearing loss and tinnitus: Evidence from brain imaging studies*. Invited speaker for a panel on Central Gain Control in Auditory Processing and Hearing Loss, 41st Annual Midwinter Meeting of the Association for Research in Otolaryngology, San Diego, CA, February 9-14, 2018.
16. **Husain, F.T.** (2018). *Neural networks of tinnitus and hearing loss: Insights from human brain imaging studies*. Department of Speech, language, and Hearing Sciences Seminar, Purdue University, West Lafayette, IN, April 9, 2018.
17. **Husain, F.T.** (2018). *The brain and tinnitus*. 26th Annual International Conference on Management of the Tinnitus and Hyperacusis Patient, University of Iowa, Iowa City, IA, June 14-15, 2018.
18. **Husain, F.T.**, Schmidt, S., Zimmerman, B., Tai, Y., Shahsavarani, S., Khan, R., Abraham, I., Ramos, P., Wilson, C., Granato, E., Sherman, P., Esquivel, C. (2018). *Test-retest reliability of tinnitus questionnaires and brain imaging measures at military and civilian sites*. Special Session on Blast-Induced Tinnitus, Military Health System Research Symposium (MHSRS), Kissimmee, Florida, August 19-22, 2018.
19. **Husain, F.T.** (2018). *Tinnitus & the brain: Using imaging to better understand reaction to tinnitus*. Invited talk to the American Speech-Language and Hearing Association’s annual conference, Boston, MA, November 15-17, 2018.
20. **Husain, F.T.** (2019). *Tinnitus and the brain*. 26th Annual International Conference on Management of the Tinnitus and Hyperacusis Patient, University of Iowa, Iowa City, IA, June 13-14, 2019.
21. **Husain, F.T.** (2019). *Speech-in-noise recognition examined in individuals with normal hearing sensitivity and tinnitus using behavioral and brain imaging methods*. Invited lecture for a special session on “Perceptual consequences of hearing loss: Children versus adults”, 177th meeting of the Acoustical Society of America, Louisville, KY, 13-17 May, 2019.
22. **Husain, F.T.** (2019). *Tinnitus and the brain: What we have learned from neuroimaging studies,* ***Keynote Lecture*** given at the 2019 Audiology Symposium on Advances in Neurocognition & Grand Rounds Poster Competition, Northern Illinois University, DeKalb, IL, October 25, 2019.
23. **Husain, F.T.** (2020). Unraveling the Neural Networks of Tinnitus Using MRI / fMRI, Department of Otolaryngology Head and Neck Surgery seminar series (virtual), Harvard Medical School, July 7, 2020.
24. **Husain, F.T.** (2020). *Understanding tinnitus severity and heterogeneity using brain imaging*, British Tinnitus Association’s virtual conference 2020, October 5-9, 2020.
25. **Husain, F.T.** (2020). *Tinnitus and the brain: using neuroimaging studies to solve the puzzle of tinnitus*, virtual colloquium presentation, the Department of Speech, Language and Hearing Sciences at Indiana University, October 23, 2020.
26. **Husain, F.T.** (2021). *Using Brain Imaging to Unravel Neural Networks of Tinnitus*, virtual presentation for the Department of Communication Sciences and Disorders seminar series, University of Wisconsin-Madison, January 26, 2021.
27. **Husain, F.T.** (2021). *Unraveling the neural networks underlying chronic tinnitus using brain imaging*. Invited Lecture at the 2021 Joint Defense Veterans Audiology Conference (JDVAC), March 2, 2021.
28. **Husain, F.T.** (2021). *Tinnitus and other hearing disorders*, talk delivered to the OSF Healthcare clinicians via their grand rounds or “Radio Group”, organized by Dr. Hippler, June 11, 2021.
29. **Husain, F.T.** (2021). *Identifying subgroups of tinnitus using novel resting state fMRI biomarkers and cluster analysis*, invited talk at the 4th Virtual Collaborative Auditory & Vestibular Research Network (CAVRN) organized by the Hearing Center of Excellence, Department of Defense, November 8, 2021.

*Campus*

1. Husain, F.T. (2011). “Imaging studies of Tinnitus: At the Intersection of Aging, Hearing, and Disorder”, 5th Annual Symposium of the Center on Health, Aging, and Disability, University of Illinois at Urbana-Champaign, 13 October, 2011.
2. Husain, F.T. (2012). Noise: At the Intersection of Hearing, Aging, and Disorder, Director’s Seminar Series at Beckman Institute for Advanced Science and Technology, University of Illinois at Urbana-Champaign, 2 February, 2012.
3. **Husain, F.T.** (2015). *Tinnitus and veterans’ health: Insights from brain imaging*, Veteran Related Research Symposium, Chez Family Foundation Center for Wounded Veterans in Higher Education, held at Beckman Institute for Advanced Science and Technology, August 24, 2015.
4. **Husain, F.T.** (2018). Tinnitus and brain imaging. Presented to the Board of Visitors’ meeting, College of Applied Health Sciences, University of Illinois at Urbana-Champaign, October 13, 2017.
5. **Husain, F.T.** (2019). *Using mindfulness-based techniques to manage debilitating tinnitus,* Department of Agricultural Engineering Seminar Series, University of Illinois at Urbana-Champaign, October 11, 2019.
6. **Husain, F.T.** (2021). *Hearing Health Institute: Translating connectomics into better clinical outcomes*. Invited presentation at the Integrative Imaging Virtual Site Visit, Beckman Institute, October 28, 2021*.*
7. **Husain, F.T.** (2021). *Hearing Health Institute: Translating knowledge into better clinical outcomes.* SHS Fall Lecture Series, November 10, 2021.
8. **Husain, F.T.** (2021). *Leveraging neuroimaging of hearing disorders to understand basic brain function and help patients*, presentation at the Center for Advanced Study, November 18, 2021.

**F. Offices Held in Professional Societies -**

2016-2017 Member, Program Committee, International Symposium on Hearing Loss and Tinnitus – Celebrating the Work of Jos J. Eggermont, Auditory Cortex Meeting, September 10, 2017.

2017 Co-chair, Brain Imaging and Modeling Symposium, NIDCD, NIH,   
Bethesda, MD, September 8, 2017.

2020 Chair, organizing committee, International Conference on Brain Imaging and Tinnitus, November 20-22, 2020. Conference was presented in a virtual format with 350 registered attendees.

2020-2023 Member, Programming Committee, Association for Research in Otolaryngology.

**G. Editorships of Journals or Other Learned Publications**

2015-present Associate Editor, *Frontiers in Auditory Cognitive Neuroscience*

2021-present Editor, *American Journal of Audiology*

**H. Grants Received**

Research grants:

1. **Husain, F.T** (PI), *Neural Modeling and Imaging of Tinnitus*. Tinnitus Research Consortium. Sep 1 2006 -Aug 31 2008, $75,000.
2. **Husain, F.T** (PI) and Allen, J. (co-PI), *Identifying differences in hearing loss groups with and without tinnitus: A combined behavioral and mathematical modeling study in older adults* Mary Jane Neer Research Fund, College of Applied Health Sciences, UIUC. May 2008-May 2009, $15,000.
3. **Husain, F.T** (PI), *Mapping attentional networks in hearing loss and tinnitus*. Campus Research Board, UIUC. June 2010-May 2011, $13,070.
4. Grindrod, C., (PI) and **Husain, F.T.** (co-PI), *Age-Related Changes in the Cerebral Hemispheric Contributions to Sentence-Level Integration.* CHAD Pilot Grant Program, College of Applied Health Sciences, UIUC. April 2010-May 2011, $15,000.
5. **Husain, F.T** (PI), *Functional and Anatomical Neural Networks of Chronic Tinnitus and Hearing Loss*. Tinnitus Research Consortium. Aug 1 2010 - July 31 2014, no cost extension until July 31, 2014. $298,000.
6. Gratton, G. (PI), *Diffusive optical tomography at the Biomedical Imaging Center,* One of twenty founding associate faculty (**Husain, F.T**.). Biomedical Research Support Shared Instrumentation Grants, NCRR, National Institutes of Health, September 2010-August 2011, $600,000.
7. Husain, F.T. (PI) and McAuley, E. (co-PI), *Understanding the Role of Physical Fitness in Mitigating Tinnitus Severity: An fMRI Study.* Center for Health, Aging and Disabilty, College of Applied Health Sciences, UIUC. Awarded from August 16 2013 – December 16 2014, $20,000.
8. Mudar, R. A. (PI), **Husain, F. T.** (Co-PI). *Impact of hearing loss on brain and cognition in older adults*. Center on Health, Aging, and Disability Pilot Grant, University of Illinois at Urbana-Champaign, August 2015-January 2017, (total cost) $20,000.
9. **Husain, F. T.** (PI). Hirani, A. (collaborator), Baryshnikov, Y. (collaborator), Esquivel, C. (collaborator), Sherman, P. (collaborator). *Identifying subgroups of tinnitus using novel resting state fMRI biomarkers and cluster analysis*. Department of Defense, Congressionally Directed Medical Research Programs (CDMRP), Peer Reviewed Medical Research Program (PRMRP) Investigator-Initiated Research Award, September 15, 2015-September 14, 2018, (direct cost) $1,188, 886, (total cost) $1,591,913.
10. **Husain, F. T.** (PI)**.** *Assessing mindfulness based cognitive therapy (MBCT) in veterans and civilians with tinnitus using fMRI.* Center for Wounded Veterans in Higher Education Seed Grant, UIUC, (total cost) $45,000, January 15, 2016-December 31, 2017.
11. Mudar, R. (PI), **Husain, F. T.** (co-PI)**.** *Cognitive and neural alterations in age-associated hearing loss***.** New Century Scholars Research Grant, American Speech-Language-Hearing Foundation, (total cost) $25,000, January 1-December 31, 2018.
12. **Husain, F.T.** (PI). *Evaluating the GN Resound Relief App using task and rest-based fMRI*. GN Hearing Care Corporation, Denmark, (total cost) $83,000, September 1, 2018 – August 31, 2019.
13. Zhang, J. (PI), **Husain, F.T.** (co-PI). *Clinical Trial of Etanercept (TNF-alpha Blocker) for Treatment of Blast Induced Tinnitus*. PI of the subaward to UIUC, (total cost) $441,598, September 1, 2018 – August 31, 2022.
14. **Husain, F.T.** (PI), Lam, F. (co-PI). *Investigating the neurochemical nature of tinnitus and hearing loss using magnetic resonance spectroscopy*. Chez Veterans Center’s Military Service Knowledge Collaborative 2020 Seed Grant Award, and Beckman Pilot Hours grant, (total cost), $25,000, June 15, 2020-June 15, 2021.
15. **Husain, F.T.** (PI), Berenbaum, H. (co-PI), Lam, F. (co-PI), Baryshnikov, Y. (co-PI). *A multimodal brain imaging study of misophonia examining its audiological and psychological aspects*. Misophonia Research Foundation, (total cost), $396, 304, October, 1, 2020-September 30, 2022.
16. **Husain, F.T.** (PI), Baryshnikov, Y. (co-PI), Leaver, A. (co-PI), Luong, H. (co-PI), Peelle, J. (co-PI), Sutton, B. (co-PI). Hearing Health Institute. Research grant from Discovery Partners Institute, part of the University of Illinois system, (total cost), $125,000. September 1, 2021-February 28, 2023.

Mentoring/Training grants

1. Jones, D.L. (PI), Coleman, T., Fabiani, M., Wickesberg, R. (co-PIs), *NeuroEngineering IGERT: A unified educational program for systems engineering and neuroscience.* One of twenty founding associate faculty (**Husain, F.T**.). National Science Foundation, July 2009-July 2014, $,2,000,000.
2. Gander, P. (PI), **Husain, F.T. (mentor PI).** *Understanding the tinnitus brain at rest: Characterising the effect of a tinnitus intervention on inter-regional connectivity.* Pauline Ashley Prize, Deafness Research UK, August 2011-July 2012, £5,000.
3. **Husain, F.T.** (PI), Grindrod, C.M. (Co-PI), Carpenter-Thompson, J. (student Co-PI), Schmidt, S.A. (student Co-PI). *Initiative on Communication and Aging Research (I-CARE).* Focal Point Grant, Graduate College, UIUC, August 2012-July 2013, $15,000.
4. Carpenter-Thompson, J.T. (student PI), **Husain, F.T.** (mentor PI), *The Effect of Exercise on Tinnitus Severity*. American Tinnitus Association. Awarded for May 1 2013 – April 30 2014, $10,000.
5. Chappell, J. (student), **Husain, F. T.** (mentor). *Dissociating mechanisms of tinnitus and hyperacusis: A survey and behavioral study,* American Tinnitus Association, June 1, 2014-May 31, 2015, (total cost) $10,000.
6. Roth, K. (student), **Husain, F.T.** (mentor). *Tinnitus severity and gray matter: A characterization of subgroups*. Mentored Professional Enrichment Experience, Southern Illinois University-Medical School grant to conduct research in mentor’s lab, (total cost) $3,779, June-August 2016.
7. Mary-Angelica Gramcko-Tursi (PhD student, Mathematics) (student), Baryshnikov, Y. (mentor), **Husain, F.T.** (mentor). Program for Interdisciplinary and Industrial Internships at Illinois, $4,300 (yearly) for 2 summer months, 2016 and 2017.
8. Schwingel, A. (PI), **Husain, F.T.** (one of 10 co-PIs). *START: Student Aging Researchers Training*, development grant awarded by the Office of Undergraduate Research, UIUC, (total cost) $9,000, August 15, 2018-August 14, 2019, extended until August 14, 2020.
9. Tsevat, J. (PI), Moring, J.C. (Scholar), Fox, P. (Mentor), **Husain, F.T.** (Mentor), Peterson, A.L. (Mentor). *Network Dysregulation Among Individuals with Co-Morbid Tinnitus and PTSD*, 1KL2TR002646-01, NIH National Center for Advancing Translational Sciences, (total cost) $308,504, July 1, 2018-June 30, 2020.
10. Moring, J.C., (PI), Fox, P.T. (Mentor), **Husain, F.T**. (Mentor), Peterson, A.L. (Mentor), Esquivel, C. (Mentor). An Evaluation of Neurobiological Similarities of Tinnitus and PTSD. NIMH K23 Mentored Patient-Oriented Career Development Award, NIH, (total cost) $504,228, February 1, 2021-January 31, 2024.

International collaborative grants:

1. **Husain, F.T.** (PI), *Tinnitus and Hearing Impairment: Use of Novel Brain Imaging Methods.* William and Flora Hewlett International Research Grants. June 2011-May 2012, $3,000.
2. **Husain, F. T.** (PI)**.** *Study of intermittent tinnitus using brain imaging*, International Research Travel Grant, Illinois International Programs, (total cost) $3,000, 2016-2017.
3. **Husain, F. T.** (PI)**,** Van Dijk, P. (PI). NWO (Nederlandse Organisatie voor Wetenschappelijk Onderzoek = Netherlands Organisation for Scientific Research) *Visitors travel grant to study intermittent tinnitus*, €4,500 (=$5,123), 2016-2017.
4. **Husain, F.T.** (PI), Khan, R., Tai, Y. *Neuroimaging brain changes following tinnitus treatment*. Lemann Institute (UIUC)-FAPESP (Brazil) Collaborative Research Grant, (total cost) $20,000, June 1, 2018 – May 31, 2020.
5. **Review Panels (e.g., for Governmental Agencies, Educational Institutions)**

2012 - present Scientific Advisory Board member, American Tinnitus Association, USA

2020-2024 Standing Committee Member, Scientific Merit Review Board Subcommittee on Sensory Systems and Communication Disorders, Rehabilitation Research and Development Service, Department of Veterans Affairs

**II. Publications and Creative Works**

# Denotes any publication derived from the candidate’s thesis.

\* Denotes publication that has undergone stringent editorial review by peers.

+ Denotes publication that was invited and carries special prestige and recognition.

**A. Doctoral thesis title**

**Husain, F.T.**, (1999). *Investigations of auditory category learning: Experiments and models*. Supervisor: Frank H. Guenther, Boston University.

**B. Books Authored or Co-Authored (in print or accepted)** - None

**C. Books Edited or Co-Edited (in print or accepted)** - None

**D. Chapters in Books (in print or accepted)**

1. **#Husain F**. & Juell P. (1996). A self-organizing neural network for the classification of unknown words. In K.S. R Anjaneyulu, P. Sasikumar, and S.Ramani (Eds.), *Knowledge based computer systems: Research and applications* (pp. 339-350). New Delhi, India: Narosa Publishing House.
2. Horwitz, B., **Husain, F. T.**, & Tagamets, M. -A. (2003). Connectionist approach in functional imaging. In V. Ng, G.J. Barker and T. Hendler (Eds.) *Psychiatric neuroimaging* (pp. 67-72). Amsterdam, NL : IOS Press.
3. Horwitz, B., & **Husain, F. T.** (2007). Simulation frameworks for large-scale brain systems. In V. Jirsa and A.R. McIntosh (Eds.), *Handbook of brain connectivity* *(understanding complex systems)* (pp. 275-302). Berlin: Springer-Verlag.
4. **Husain, F. T.** (2007). Neural network models of tinnitus. In B. Langguth, G. Hajak, T. Kleinjung, A. Cacace, and A. Møller (Eds.) *Tinnitus: Pathophysiology and treatment, progress in brain research series, 166* (pp. 125-140). Amsterdam, NL: Elsevier.
5. **+Husain, F.**T. (2021). Learning to control tinnitus. In Federmeier, K. (serial editor) *Psychology of Learning and Motivation*, Volume 74 (pp. 47-94), Elseveier: Oxford, UK.
6. **+Husain, F.**T. (in press). Navigating future directions in tinnitus treatment. In R. Tyler and A. Perreau (Eds.) *Tinnitus Treatments: Clinical Protocols* (2nd Edition), Thieme: New York.

**E. Monographs (in print or accepted)** **-** None

**F.** **Articles in Journals (in print or accepted)**

1. **\*#Husain, F**. & Juell P. (1997). A self-organizing neural network for the classification of unknown words*.* *VIVEK: A Quarterly in Artificial Intelligence*, *10* (1), 2-11.
2. \*#Guenther, F. H., **Husain, F. T.**, Cohen, M. A., & Shinn-Cunningham, B. G. (1999). Effects of categorization and discrimination training on auditory perceptual space. *Journal of the Acoustical Society of America*, *106*(5), 2900-2912.
3. \*Horwitz, B., **Husain, F. T.**, Braun, A. R., & Tagamets, M. –A. (2001). Simulating PET/fMRI studies of visual and auditory pattern recognition using biologically realistic large-scale models*. Proceedings of the INNS-IEEE International Joint Conference on Neural Networks*, Washington D.C., July 2001, 878-883.
4. **\*Husain, F. T.**, Nandipati, G., Braun, A. R., Tagamets, M. -A., & Horwitz, B. (2002). Simulating transcranial magnetic stimulation during PET with a large-scale neural network model of the prefrontal cortex and the visual system. *NeuroImage*, *15*(1), 58-73.
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60. **Creative Works (Exhibitions, Commissions, Competitions, Performances, Designs, Art or Architecture Executed) -** None
61. **Patents –**
62. **Husain, F.T**., Y., Zimmerman, B.J., Abraham, I.T., Baryshnikov, Y. *Automated, objective method of assessing tinnitus condition*, U.S. Patent Serial Number 16/196,587, granted March 31, 2021.
63. **Bulletins, Reports, or Conference Proceedings (in print or accepted) –**
64. **#Husain, F. T.**, Negishi, M., Cohen, M. A., & Guenther, F. H. (1999). Model of the classification of English vowels by Spanish speakers. Boston University Technical Report, CAS/CNS-99-025: 1-25.
65. **Husain, F. T.,** Negishi, M., & Cohen, M. A. (1999). Model of the perception of second language phonemes. *Proceedings of the XIVth International Congress of Phonetic Sciences*, pp. 1421-1424. Berkeley: Regents of the University of California.
66. Guenther, F. H., & **Husain, F.T.** (1999). Psychophysical investigations of auditory space deformations resulting from category and discrimination learning. *Proceedings of the XIVth International Congress of Phonetic Sciences*, pp. 2061-2064. Berkeley: Regents of the University of California.
67. **Abstracts (in print or accepted)**
68. **#Husain, F.**,& Geunther, F. H. (1998). Inducing a “perceptual magnet” – like effect in nonspeech modality. *Journal of the Acoustical Society of America*, 103 (5): 2982.
69. **Husain, F. T**., Tagamets, M. -A., Braun, A., & Horwitz, B. (2001). Large-Scale Computational Model for Simulating PET/fMRI studies of Auditory Pattern Recognition, 7th Annual Meeting of the Organization for Human Brain Mapping, Brighton, England, *NeuroImage* 13: S1307.
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73. **Husain, F. T.**, Chappell, J., & Heller, C. (2012). Effect of age, hearing loss, and tinnitus on DPOAEs, Abstracts of the British Society of Audiology annual conference (incorporating the Experimental and Clinical Short papers meetings), September 7-9, 2011, Nottingham, UK, Fortnum, H., Hall, D., Smith, S., (eds), *International Journal of Audiology*, 51:246.
74. Davies, J., Gander, P., Andrews, M., **Husain, F. T.**, & Hall, D. A. (2013). Auditory network connectivity in tinnitus patients: a resting-state fMRI study, Abstracts of the British Society of Audiology annual conference (incorporating the Experimental and Clinical Short papers meetings), September 5-7, 2012, Nottingham, UK, Fortnum, H., Hall, D., Smith, S., (eds), *International Journal of Audiology*, 52:290.
75. **Book Reviews (in print or accepted) -** None
76. **Other: Scholarly Presentations (Not Listed Under Invited Lectures or In Print).**

Podium Presentations (only reporting since 2015, out of 35 total)

1. Schmidt, S., Carpenter-Thompson, J. R., **Husain F.T.** (2015). Resting state functional connectivity in tinnitus patients varies with tinnitus duration and severity, *9th International TRI Tinnitus Conference,* Ann Arbor, MI, June 7-10, 2015.
2. Schmidt, S., Romero, A., **Husain, F.T.**, (2016). Investigating tinnitus subgroups varying in severity using Diffusion Tensor Imaging, *10th International Tinnitus Research Initiative Conference and 1st EU Action (TINNET) Conference*, East Midlands Conference Centre, University of Nottingham, Nottingham, UK,March 17, 2016.
3. Schmidt, S., Carpenter-Thompson, J. R., **Husain, F. T.** (2016).Decreased default mode network connectivity to the precuneus is common across tinnitus subgroups, *10th International Tinnitus Research Initiative Conference and 1st EU Action (TINNET) Conference*, East Midlands Conference Centre, University of Nottingham, Nottingham, UK, March 17, 2016.
4. Jansen, J. N., Gander, P., & **Husain, F. T.**, (2016). Using regression modeling of survey data to better understand the expectations of tinnitus treatment by audiologists and patients, *10th International Tinnitus Research Initiative Conference and 1st EU Action (TINNET) Conference*, East Midlands Conference Centre, University of Nottingham, Nottingham, UK, March 18, 2016.
5. Schmidt, S. A**.**, & **Husain, F. T.** (2017). Resting state and the default mode in tinnitus. *Ear Day, Department of Communication Disorders and Sciences, Rush University and Chicago Chapter of the Acoustical Society of America*, Chicago, IL, January 27, 2017.
6. **Husain, F.T.** (2017). Understanding the Effect of Tinnitus on Auditory and Extra-auditory Neural Networks*.* *Ear Day, Department of Communication Disorders and Sciences, Rush University and Chicago Chapter of the Acoustical Society of America*, Chicago, IL, January 27, 2017.
7. Esquivel, C. R., Levy, C., Schmidt, S. A., **Husain, F. T.** (2017).  Identifying Subgroups of Tinnitus Using Novel Resting fMRI Biomarkers and Cluster Analysis*, Collaborative Auditory Vestibular Research Network*, San Antonio, TX, June 14, 2017.
8. **Husain, F. T.,** Schmidt, S, A., Esquivel, C. R., Sherman, P. M. (2017). Towards developing reliable, objective biomarkers of tinnitus using resting state fMRI *Military Health System Research Symposium (MHSRS)*, Kissimmee, Florida, August 27-30, 2017.
9. **Husain, F. T.**, Schmidt, S. A., Zimmerman, B., Tai, Y., Khan, R., Levy, C., Sherman, P., Esquivel, C. (2018). Replicability and robustness of fMRI biomarkers of tinnitus in military and civilian populations. *41st Annual Midwinter Meeting of the Association for Research in Otolaryngology*, San Diego, CA, February 9-14, 2018.
10. Shahsavarani, S., Schmidt, S. A., Tai, Y., Khan, R. A., **Husain, F. T.** (2019). Tinnitus-related changes in intrinsic neural networks. Podium presentation *at the Association for Research in Otolaryngology 42nd Midwinter Meeting*, Baltimore, MD, February 9-13.
11. Shahsavarani, S., Tai, Y., Schmidt, S. A., Khan, R. A., **Husain, F. T.** (2019). Passive music listening: a modulation of resting-state functional connectivity to better dissociate tinnitus. Podium presentation at the *Acoustical Society of America* *Spring 2019 meeting*, May 14-17, Louisville, KY.
12. Tai, Y., **Husain, F.T.** (2019). Are gray matter volume changes in frontal brain regions associated with speech-in-noise performance in tinnitus patients? 12th International *Tinnitus Research Initiative Conference and 3rd Cross-Strait Tinnitus Seminar*, May 17-19, Taipei, Taiwan.
13. Tai, Y., Tsao, A. L., Shende, S. A., **Husain, F. T.** (2019). The mediating effect of tinnitus on predicting speech-in-noise performance with extended-high frequency thresholds. *Midwest Auditory Research Conference*, Springfield, IL.
14. Shahsavarani, S., Khan, R., Schmidt, S., Tai, Y., **Husain, F.T.** (2019). Reorganization of intrinsic neural networks associated with tinnitus. Selected for nanosymposium podium presentation at *Society for Neuroscience* conference, October 19-23, Chicago, IL.
15. **Husain, F.T.** (2020). Large-scale Study of Replicability of fMRI Biomarkers of Tinnitus in Military and Civilian Populations. Virtual oral presentation at *University of Illinois Tinnitus Brain Imaging Conference*, November 20-22.
16. Zimmerman, B., **Husain, F.T.** (2020). Cerebral Perfusion and Tinnitus. Virtual oral presentation at *University of Illinois Tinnitus Brain Imaging Conference*, November 20-22.
17. Shahsavarani, S.., **Husain, F.T.** (2020). Passive Listening to Music: A Modified fMRI Resting State Paradigm to Differentiate Tinnitus Subgroups. Virtual oral presentation at *University of Illinois Tinnitus Brain Imaging Conference*, November 20-22.
18. Tai, Y.., **Husain, F.T.** (2020). Investigating Cognitive Control Deficits in Tinnitus Using Behavioral and ERP Measures. Virtual oral presentation at *University of Illinois Tinnitus Brain Imaging Conference*, November 20-22.
19. Khan, R.A., **Husain, F.T.** (2020). Can DTI be Used to Differentiate between Tinnitus Subgroups? Virtual oral presentation at *University of Illinois Tinnitus Brain Imaging Conference*, November 20-22.

Poster Presentations (35 since 2015, out of 74 total)

1. Schmidt, S., Akrofi, K., Carpenter-Thompson, J., & **Husain, F. T.** (2013). A resting state functional connectivity study of tinnitus and hearing loss, *19th Annual Meeting of the Organization for Human Brain Mapping*, Seattle, WA, June 16-20.
2. Schmidt, S. A, Carpenter-Thompson, J. R., & **Husain, F. T.** (2013). Hearing Loss studied using task- and rest-based fMRI studies, *Proceedings of the 5Th Aging and Speech Communication conference*, Bloomington, IN, October 2-9, 2013.
3. Carpenter-Thompson, J. R., Akrofi, K., Schmidt, S. A, & **Husain, F.T.** (2014). Alterations of the limbic system associated with tinnitus may maintain rapid reaction time to affective stimuli, *Proceedings of the 37th Annual Mid-Winter Meeting of the Association for Research in Otolaryngology*, San Diego, CA, February 22-26, 2014.
4. **Husain, F. T**., Akrofi, K., & Carpenter-Thompson, J. R. (2014). Effects of tinnitus and hearing loss on functional brain networks involved in auditory and visual short-term memory, *Fall 2014 Meeting of the Acoustical Society of America*, Indianapolis, IN, October 27-31.
5. Carpenter-Thompson, J. R., & **Husain, F.T.** (2015). Increased levels of physical activity associated with lower levels of tinnitus severity and increased quality of life, *Proceedings of the 38th Annual Mid-Winter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 21-25, 2015.
6. Carpenter-Thompson, J. R., McAuley, E., Schmidt, S. A., & **Husain, F. T.** (2015). Physical activity and tinnitus: how physical activity may decrease tinnitus severity, *9th International TRI Tinnitus Conference,* Ann Arbor, MI, June 7-10, 2015.
7. Chappell, J., & **Husain, F. T**. (2015). Dissociating mechanisms of tinnitus and hyperacusis: A survey and behavioral Study, *9th International TRI Tinnitus Conference,* Ann Arbor, MI,June 7-10, 2015.
8. Jansen, J. N., Gander, P. E., & **Husain, F. T.** (2015). Complementary surveys of audiologists and patients to assess tinnitus treatment expectations, *9th International TRI Tinnitus Conference,* Ann Arbor, MI,June 7-10, 2015.
9. Bido Medina, R. O., Carpenter-Thompson, J., Schmidt, S. A., & **Husain, F. T.** (2015). Tinnitus severity and gray matter, *9th International TRI Tinnitus Conference,* Ann Arbor, MI, June 7-10, 2015.
10. Schmidt, S., Carpenter-Thompson, J. R., & **Husain F. T.** (2015). Resting state functional connectivity in tinnitus patients varies with tinnitus duration and severity, *9th International TRI Tinnitus Conference,* Ann Arbor, MI, June 7-10, 2015.
11. Thomas, M., Carpenter-Thompson, J. R., Schmidt, S. A., & **Husain, F.T.** (2015). Gray matter differences in tinnitus sufferers, *9th International TRI Tinnitus Conference,* Ann Arbor, MI, June 7-10, 2015.
12. Schmidt, S. A., Schubel, M., Hirani, A. N., Baryshnikov, Y., & **Husain, F. T.** (2015). Unsupervised hierarchical clustering of resting state functional connectivity data to identify patients with mild tinnitus, *45th Annual Meeting of the Society for Neuroscience*, Chicago, IL, October 17-21, 2015.
13. #Shepard, R., Boven, C., Allen, J., **Husain, F. T.,** Wickesberg, R. (2016). The effect of elevated intensity on consonant recognition in noise by normal hearing, aged subjects. *39th Midwinter Meeting of the Association for Research in Otolaryngology*, San Diego, CA, February 20-24, 2016.
14. **Husain, F. T.,** Schmidt, S., & Romero, A. (2016). Investigating tinnitus subgroups varying in severity using Diffusion Tensor Imaging, *10th International Tinnitus Research Initiative Conference and 1st EU Action (TINNET) Conference*, East Midlands Conference Centre, University of Nottingham, Nottingham, UK, March 17, 2016.
15. **Husain, F. T.,** Jansen, J. N., & Gander, P. (2016). Using regression modeling of survey data to better understand the expectations of tinnitus treatment by audiologists and patients, *10th International Tinnitus Research Initiative Conference and 1st EU Action (TINNET) Conference*, East Midlands Conference Centre, University of Nottingham, Nottingham, UK, March 18, 2016.
16. Schmidt S., Carpenter-Thompson, J. R., & **Husain, F. T.** (2016). Decreased default mode network connectivity to the precuneus is common across tinnitus subgroups, *10th International Tinnitus Research Initiative Conference and 1st EU Action (TINNET) Conference*, East Midlands Conference Centre, University of Nottingham, Nottingham, UK, March 17, 2016.
17. Schmidt, S. A., Tai, Y., & **Husain, F. T**. (2017). Resting state networks of tinnitus patients are replicable: a preliminary study. *40h Midwinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 11-15,2017.
18. Tai, Y., Tsao, A. L., & **Husain, F. T.** (2017). Effect of tinnitus severity and loudness on speech-in-noise ability in normal hearing tinnitus patients. *40h Midwinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 11-15,2017.
19. Boven, C., Shepard, R., Allen, J., **Husain, F. T.,** & Wickesberg, R. (2017). Comparison of consonant recognition in background noise by normal hearing young and older subjects. *40h Midwinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 11-15, 2017.
20. **Husain, F. T.**, Zimmerman, B., Schmidt, S. A., Thomas, I., & Baryshnikov, Y. (2017). Using novel mathematical technique to classify tinnitus patients and differentiate them from controls. *Military Health System Research Symposium (MHSRS),* Kissimmee, FL, August 27-30, 2017
21. Nguyen, L. T., Shende, S. A., Tai, Y., **Husain, F. T.**, & Mudar, R. A. (2017). Cognitive and neural alterations in age-associated hearing loss. *12th Annual Eleanor M. Saffran Conference on Cognitive Neuroscience & Rehabilitation of Communication Disorders*, Philadelphia, PA, September 15-16, 2017.
22. Tai, Y., & **Husain, F. T.** (2017). Does tinnitus affect speech-in-noise recognition in patients with normal hearing? *National Center for Rehabilitative Auditory Research (NCRAR) Conference*, Portland, OR, October 4-6, 2017.
23. Zimmerman, B., Abraham, I., Schmidt, S. A., Baryshnikov, Y., & **Husain, F. T.** (2017) Using a novel mathematical technique to classify tinnitus patients and differentiate them from controls. *5th Indiana Neuroimaging Symposium and Hackathon on Brain Connectomics*, Purdue University, West Lafayette, IN, November 3-4, 2017.
24. Finnegan, M. K., Khan, F., Meno, C., Tai, Y., Menard, C. L., & **Husain, F. T.** (2017).Assessing the effectiveness of mindfulness-based therapy in the management of distressing tinnitus. *Annual American Speech-Language-Hearing Association convention*, Los Angeles, CA, November 9-11, 2017.
25. Tai, Y., Tsao, A. L., Tyler, R. S., & **Husain, F. T.** (2017). Speech-in-noise recognition in normal hearing threshold tinnitus patients*.* *Annual American Speech-Language-Hearing Association convention*, Los Angeles, CA, November 9-11, 2017.
26. Schmidt, S. A., **Husain, F. T**., Zimmerman, B., Khan, R., Tai, Y., Esquivel, C., Levy, C., Ramos, P., Camou, E., Sherman, P. (2018). Replicability of resting state networks in tinnitus patients. Poster presented at *Tinnitus Research Initiative / TINNET conference*, Regensburg, Germany, March 14-16, 2018.
27. **Husain FT**, Zimmerman B, Abraham I, Schmidt S, Shahsavarani S, Khan R, Baryshnikov Y. (2018). Automated identification of tinnitus patients using replicable resting state fMRI data. *Sixth Biennial Conference on Resting-State and Brain Connectivity*, Montreal, Quebec, Canada, September 26-28, 2018.
28. Tai, Y. & **Husain, F. T.** (2018). Relation between consonant recognition in speech-in-noise test and pitch of tinnitus*.* Poster presentation *at the Annual American Speech-Language-Hearing Association convention*, November 15-17, Boston, MA.
29. Tai, Y., Shahsavarani, S., Khan, R. A., Schmidt, S. A., & **Husain, F. T.** (2019). Relation between gray matter volume and speech-in-noise performance in tinnitus patients with normal hearing sensitivity*.* Poster presentation atthe *Association for Research in Otolaryngology 42nd Midwinter Meeting*, February 9-13 Baltimore, MD.
30. Khan, R. A., Schmidt, S. A., Tai, Y., Shahsavarani, S., & **Husain, F. T.** (2019). An investigation into the white matter deficits associated with tinnitus and hearing loss. Poster presentationatthe *Association for Research in Otolaryngology 42nd Midwinter* Meeting, February 9-13, Baltimore, MD.
31. Khan, R. A., Schmidt, S., Tai, Y., Shahsavarani, S., **Husain, F. T.** (2019). Correlations between white matter integrity and measures of tinnitus and hearing loss. *Midwest Auditory Research Conference*, Springfield, IL.
32. Khan, R.A., Schmidt, S.A., Tai, Y., Shahsavarani, S., **Husain, F.T.** (2019). What white matter plasticity can tell us about the associations between tinnitus and hearing loss. Poster presentation at *Advances and Perspectives in Auditory Neuroscience* conference, October 18, Chicago, IL.
33. Khan, R.A., Schmidt, S.A., Tai, Y., Shahsavarani, S., **Husain, F.T.** (2019). What white matter plasticity can tell us about the associations between tinnitus and hearing loss. Poster presentation at *Society for Neuroscience* conference, October 19-23, Chicago, IL.
34. Shahsavarani, S., Khan, R., Schmidt, S., Tai, Y., **Husain, F. T.** (2019). Reorganization of intrinsic neural networks associated with tinnitus. Poser presentation *Advances and Perspectives in Auditory Neuroscience* conference, October 18, Chicago, IL.
35. Abraham, I., Shahsavarani, S., Zimmerman, B., Baryshnikov, Y., **Husain, F. T.** (2019). Cyclicity vs. similarity measures for fMRI resting state time series analysis. Poster presentation at *Society for Neuroscience* conference, October 19-23, Chicago, IL.
36. Moring, J.C., Ortman, J.A., Resick, P.A., Peterson, A.L., **Husain, F.T.**, Esquivel, C.R., Granato, E., Fox, P.T.; for the STRONG STAR Consortium. Treatment of Posttraumatic Stress Disorder Alleviates Tinnitus-Related Distress Among Veterans: A Nonrandomized Pilot Study*.* Poster presentation at the *San Antonio Combat PTSD Conference*, October, 2021, San Antonio, TX.
37. Khan, R.A., Wang, Z., Lam, F., **Husain, F. T.** (2022). An Investigation Into Changes in Neurotransmitter Concentrations Associated With Tinnitus and Hearing Loss. Virtual poster presentation at *Association for Research in Otolaryngology 45th Midwinter Meeting*, February 5-9, 2022.
38. **Other**
39. **Husain, F. T.**, Tai, Y., & Finnegan, M. K. (2016). Emotional processing and non-auditory based interventions in tinnitus. *Perspectives ASHA SIGs*, 1 (SIG 7), 13–23.
40. **Husain, F.T.** (2016). Tinnitus and its relation to emotion, exercise. *The Hearing Journal*, 69(9), 16.
41. **Husain, F.T.** (2018). The emotional impact of mild traumatic brain injuries and tinnitus. *Tinnitus Today*, 43(3).
42. **Husain, F.T.** (2020). Mindfulness-Based Interventions for Treating Tinnitus. *Audiology Today,* May-June issue.
43. **Husain, F.T.** (2020). What does research tell us about exercise and tinnitus? *Tinnitus Today*, 45 (2).

**III. Resident Instruction**

**A. Summary of Instruction**

**1. Descriptive Data since Last Promotion**

2. **Supervision of Graduate Student Research**

*Postdoctoral Fellows*

Kwaku Akrofi: October 2010-January 2013. PhD, Electrical and Computer Engineering. Supervised on the project *Functional and Anatomical Neural Networks of Chronic Tinnitus and Hearing Loss.* Currently a Research Associate at Texas Tech University

Benjamin Zimmerman: October 2016- 2020. PhD in Neuroscience. Supervised on the project *Identifying Subgroups of Tinnitus Using Novel Resting State fMRI Biomarkers and Cluster Analysis.*

Somayeh (Bahar) Shahasravani: March 2018-2020. PhD in Speech and Hearing Science. Supervised on the project *Identifying Subgroups of Tinnitus Using Novel Resting State fMRI Biomarkers and Cluster Analysis.*

*PhD students: Committee Chair*

Jake Carpenter-Thompson: Graduate Program in Neuroscience (2010-current). MD/PhD candidate. Thesis: *Tinnitus, Physical Activity and Improved Quality of Life: Investigation of the Neural Correlates of Tinnitus and Potential Treatment Options*

Date of Completion: May 2015

Completed medical school, currently Neurology resident, University of Chicago, July 2019

Yihsin Tai: Department of Speech and Hearing Science (2015-2020). PhD candidate

Thesis: *Investigating the Relationship between Cognitive Control and Speech-in-Noise Recognition in Tinnitus from Perceptual, Neuroanatomical and Electrophysiological Aspects*

Date of completion: August 2020

Currently, Assistant Professor of Audiology, Department of Speech Pathology and Audiology, Ball State University

Sara Schmidt: Graduate Program in Neuroscience (2011-2021). PhD candidate

Thesis Title: *Translating resting state fMRI to determine invariant, replicable biomarkers of the heterogeneous tinnitus patient population.*

Date of completion: December 2021

Rafay Khan: Graduate Program in Neuroscience (2017-current). PhD candidate

Expected date of completion: December 2022

Gibbeum Kim: Department of Speech and Hearing Science (2020-current). PhD candidate

Expected date of completion: May 2025

Namitha Jain: Department of Speech and Hearing Science (2022-current). PhD candidate

Expected date of completion: May 2027

Shagun Ajmera: Graduate Program in Neuroscience (2022-current). PhD candidate

Expected date of completion: December 2027

Arit Banerjee: Graduate Program in Neuroscience (2022-current). PhD candidate

Expected date of completion: December 2027

*PhD students: Committee Member*

Zu, Yihe: Department of Speech and Hearing Science, PhD Student (2010-2011).

Lydia Nguyen: Graduate Program in Neuroscience, PhD student (2014-2020).

Sarah King: Department of Electrical and Computer Engineering, PhD student (2012-present).

Christopher Boven: Graduate Program in Neuroscience, PhD student (2012-present).

Shraddha Shende: Department of Speech and Hearing Science, PhD student (2016-present).

Ivan Abraham: Department of Electrical and Computer Engineering, PhD student (2018-present).

Lizzie Lydon: Department of Speech and Hearing Science, PhD student (2018-present).

Tomas Sierra: Department of Speech and Hearing Science, PhD student (2019-2021).

*Doctor of Audiology students: Committee Chair*

Corinne Heller: Department of Speech and Hearing Science (August 2010-May 2012).

Capstone Project: *Passive listening & auditory discrimination therapy: a sound therapy for tinnitus management*

Current employment: Educational Audiologist, Special Education District McHenry County, IL

Jaclyn (Utz) Jansen: Department of Speech and Hearing Science (January 2012-2015).

Capstone Project: *Expectations for tinnitus treatment and options: survey of audiologists and patients*

Current employment: Audiologist, Carle Foundation Hospital, Urbana, IL

Allison Sherren: Department of Speech and Hearing Science (January 2013-2015).

Capstone Project: *Using Zwicker tone to understand neural mechanisms of tinnitus*

Current employment: Audiologist, Sound Choice Hearing Clinic, Pekin, IL

Jenise Chappell: Department of Speech and Hearing Science (January 2013-2016).

Capstone Project: *Dissociating mechanisms of tinnitus and hyperacusis: a survey*

Current employment: Audiologist, American Hearing and Balance, Los Angeles, CA

Anthony Tsao: Department of Speech and Hearing Science (2015-2018).

Capstone Project: *Comparison of tinnitus pitch and loudness matching protocols: audiometer-based vs. automated software*

Current employment: Audiologist, ENT Surgical Associates, Glendale, CA

Nora (Prachar) Martin: Department of Speech and Hearing Science (January 2016-2018).

Capstone Project: *Current tinnitus counseling practices among audiologists in the United States: a survey study for audiologists*

Current employment: Audiologist in private practice, Peoria, IL

Sarah Albelaikhi: Department of Speech and Hearing Science (August 2016-2018).

Capstone Project: *Tinnitus assessment and management in Saudi Arabia: a survey study of healthcare professionals*

Current employment: Audiologist, King Fahd Medical University, Riyadh, Saudi Arabia

Ariel Brownlee: Department of Speech and Hearing Science (January 2017-2020).

Capstone Project: *Current Internet Resources used for Self-Education and Self-Management by Adults with Tinnitus in the United States: A Survey Study*

Expected Date of Completion: May 2020

Carolyn Jeon: Department of Speech and Hearing Science (January 2017-2020).

Capstone Project: *The effect of tinnitus and hyperacusis on distortion product otoacoustic emissions*

Expected Date of Completion: May 2020

Monique Dang: Department of Speech and Hearing Science (May 2019- present)

Expected Date of Completion: May 2022

Caroline (Callie) Brennan: Department of Speech and Hearing Science (May 2020- present)

Expected Date of Completion: May 2023

*Doctor of Audiology students: Examination Committee Member*

Heidi Ramrattan: Department of Speech and Hearing Science, AuD student (2009-2010).

Sarah Lewandowski: Department of Speech and Hearing Science, AuD student (2010-2011).

Julie Kenney: Department of Speech and Hearing Science, AuD student (2011).

Yihe Zhu: Department of Speech and Hearing Science, PhD student (2010- 2011).

Kathleen Burke: Department of Speech and Hearing Science, AuD student, (2011-2012).

Lyndsey Yarde: Department of Speech and Hearing Science, AuD student, (2015-2017).

Lauren Putira: Department of Speech and Hearing Science, AuD student, (2018-2019).

Jacob Caravello: Department of Speech and Hearing Science, AuD student, (2018-2020).

Kristen Johnson: Department of Speech and Hearing Science, AuD student, (2018-2020).

Hannah Smith: Department of Speech and Hearing Science, AuD student, (2020-2022).

Allison Trine: Department of Speech and Hearing Science, AuD student, (2020-2022).

Carolyn Legare: Department of Speech and Hearing Science, AuD student, (2020-2021).

Ali Marquess: Department of Speech and Hearing Science, AuD student, (2020-2022).

Brianna Arzuaga: Department of Speech and Hearing Science, AuD student, (2020-2022).

*Master of Arts: Examination Committee Member*

Lara Hosey: Department of Psychology, American University, MA (2001).

*Graduate Research Assistants not noted elsewhere*

Aiguo Han: Department of Speech and Hearing Science (August 2008-August 2009).

Richard Bido Medina: Graduate Program in Neuroscience (2014-2016).

Megan Finnegan: Department of Speech and Hearing Science (2015-2017).

Mary-Angelica Gramcko-Tursi: Department of Mathematics (2016-2017).

*Undergraduate Research Assistants (since 2008, total of 31 students)*

\*: Summer Research Opportunities Program (SROP) for undergraduates from under-represented groups

#: James Scholar project

+: Trio McNair Scholar

*Caley Lane*: Psychology (Jan 2022-June 2022)

*Donald Mascio*: Biology (August 2022-December 2022)

*Alicia Pensiamento*: I-Health (October 2021-May 2022)

*Emilie Schramer*: Speech and Hearing Science (October 2021-May 2022)

*Jenna Crean:* Speech and Hearing Science (October 2020-May 2021)

*Eghosa Atoe:* Molecular and Cellular Biology (August 2019- May 2021);

*Anna Murawski:* Speech and Hearing Science (August 2019-August 2020);

*Yu-Shan Lin:* Statistics (January 2019- December 2019);

*Jade Roberts:* Computer Science and Linguistics (January 2019- May 2019);

*Jenna Vangalis*: Kinesiology and Community Health (September 2018-May 2019);

*James Woods:* Speech and Hearing Science (January 2018-August 2018);

*Megan Foy:* Speech and Hearing Science (August 2017-May 2018);

*Emily Kay:* Speech and Hearing Science (January 2016-December 2017);

*Kelli Utz*: Junior in Molecular & Cellular Biology (August 2015-December 2016);

+*Ariana Isabel Romero*: Speech and Hearing Science (January 2014-May 2016);

*#Madeleine Thomas*: Speech and Hearing Science /James Scholar (Aug 2013-May 2015);

*Hannah Johnson*: Speech and Hearing Science (April 2013 – May 2014);

*Troy Chmieleski*: Electrical and Computer Engineering (April 2103-May 2014);

*Shravan Gupta*: Electrical and Computer Engineering (April 2103-May 2014);

*Jessica Blodgett*: Psychology (Aug 2012 – May 2013);

#*Erika Lindgren*: Speech and Hearing Science /James Scholar (Aug 2012-May 2014);

*Melissa Tednes*: Speech and Hearing Science (Jan 2012-July 2012);

*Louay Jajay*: Molecular and Cellular Biology (Jan 2012-May 2013);

\**Chloe Bunch*: Junior from Jackson State University, a Historically Black College (May-Aug 2011);

\**Ambra Terrell*: Junior from Jackson State University, a Historically Black College (May-Aug 2011);

*Ciara Nally*: Speech and Hearing Science, June 2011 – July 2012;

*Emeka Anekwe*: Philosophy, May 2010-July 2011;

\**Amy Nelloms*: Incoming AuD student, Speech and Hearing Science (May-Aug 2010), Summer Pre-doctoral Institute Program;

*Jaclyn Utz*: Speech and Hearing Science (Jan 2010-May 2011);

*Kristina Rutas*: Speech and Hearing Science (Jan 2010-May 2011);

*Stephanie Willard*: Speech and Hearing Science (Jan 2010-May 2011);

*Jenise Chappell*: Speech and Hearing Science (Jan 2010-May 2011);

*Margaret Leisten*: Speech and Hearing Science (June 2009-Dec 2009);

*Roberto Medina*: Mathematics (January 2009-December 2011);

*Caroline Davis*: Electrical and Computer Engineering (November 2008-May 2011);

\**Krystal Hill*: Junior from St. Xavier’s University (May-Aug 2008).

3. Other Contributions to Instructional Programs

Developed and taught **Psychoacoustics, SHS 540**, since Spring 2008.

Modified an Electrical and Computer Engineering course for Speech and Hearing Science graduate students called **Speech and Hearing Acoustics, ECE 598**, Fall 2008.

Developed and taught  **Seminar on Tinnitus, SHS 593-Tinnitus (later SHS 558)**, since Fall 2009**.**

Developed and taught **Foundations of Audiology, SHS 593 course**, Fall 2010, 2012, 2014.

Co-organized a seminar series on **Educational Neuroscience** along with faculty from different departments and d graduate students from different department (2010-2011).

Co-organized a seminar series devoted to **Communication and Aging** research along with another SHS faculty and two graduate students (2012-2013).

Developed and taught a 3-lecture module for the **Neuroscience I and II course**, which is new core course required of all incoming Neuroscience PhD students (2016-present).

Taught a lecture on tinnitus and brain imaging for the Tinnitus course of the Doctor of Audiology program at **Northern Illinois University** (2018).

Developed and taught an advanced doctoral seminar on **Cognitive Hearing Science**, for PhD students around campus (2019).

Served as **Director of Undergraduate Studies**, SHS, (2014-2016; 1/2018-present), implemented a revised undergraduate curriculum that incorporates two new concentrations, established a new student exchange program with Karolinska Institutet, Stockhom, Sweden, and carried out usual duties of recruitment, and managing course articulation, course substitution and inter-collegiate transfers. Was departmental liaison for campus-level Learning Outcomes Assessment process, Office of Undergraduate Research and for college-level 4H Illini Summer Academy, Experience AHS and Discover AHS events.

**B. Evaluation of Instruction**

**1. Student ICES Course Evaluation Results since Last Promotion**

\*: List of teachers ranked as excellent.

2. Candidate’s Teaching Activities Report and Self-Review

3. Departmental Evaluation of Teaching and Course Documentation

(Author of evaluation: )

**IV. Service (Public, Professional/Disciplinary, and University)**

**A. Summary of Service**

**1. Public Engagement**

1.2. For Faculty Members for Whom Public Engagement is not a Primary Criterion for Promotion

1. **Husain, F.T.** (2007). Math and the Brain, Keynote speaker, *Howard Community College Math Awareness week celebrations*, Howard County, MD, April 17, 2007.
2. Initiated the annual **Tinnitus Information Sessions** for the Champaign-Urbana community, since 2011. The series is held in the Champaign Public Library with guest speakers, who are clinicians and researchers in the field of tinnitus. There are no support groups for tinnitus in the local area and these sessions are useful in disseminating latest research and information about therapeutic approaches.
3. Presented at the local Brain Awareness Day exhibits, 2010, 2016
4. **Husain, F.T.** (2016). Tinnitus: Making Sense of the Phantom Noise in Your Head, *Chambana Science Café Series*, May 4, 2016.
5. **Husain, F.T.** (2019). Hearing Loss and Tinnitus, *Tuesday @ 10*, seminar series for seniors, Champaign Public Library, March 5, 2019.

2. Service to Disciplinary and Professional Societies or Associations

2018 Misophonia Advisory Group, Center for Strategic Philanthropy Misophonia Retreat, Miliken Institute, Chicago, IL, July 2018. Participated in workshop that produced a guide to accelerate research on misophonia, whose recommendations are currently being implemented by Miliken Institute.

**a. Editors of Journals or Other Publications**

None

**b. Editorial Boards**

2011- present Review Editor, Frontiers in Auditory Cognitive Neuroscience

2018-present Member, Editorial Board, American Journal of Audiology

2020-present Member, Editorial Board, Current Research in Neurobiology

**c. Journal Reviewer**

**Journals**: Brain Research; Neuroimage; Human Brain Mapping; Cerebral Cortex; Hearing Research; Journal of the Association for Research in Otolaryngology; Cognitive Brain Research; Cognitive, Affective and Behavioral Neuroscience; Audiology and Neurotology; Journal of Speech, Language and Hearing Research; American Journal of Audiology; BMC Neuroscience; PLoS ONE; Neural Network, Journal of the American Medical Association - Otolaryngology

**d. Grant Reviewer**

2009 Neuroscience and Mental Health Division of The Welcome Trust, London, UK

2011-2013 Neuroscience and Ophthalmic Technologies (NOIT) Study Section, National Institutes of Health, USA (two panels as Early Career Reviewer)

2011 - present Health and Health Services Research Fund, Food and Health Bureau, Hong Kong Special Administrative Region, Hong Kong (Review annually)

2012 Defense Medical Research and Development Program – Panel on Hearing and Balance Restoration and Rehabilitation, Congressionally Directed Medical Research Programs, Department of Defense

2012 American Tinnitus Association, USA

2012, 2013 Special Emphasis Panel RRD3, Office of Research and Development, Department of Veteran Affairs

2012, 2013 Veterans Administration Merit Review, Panel on Sensory Systems and Communication, Department of Veterans Affairs, USA

2014 Review Panel on Neurosensory Research Award (NSRA), Congressionally Directed Medical Research Programs, DMRDP, Department of Defense, April 2-4, 2014, Baltimore, MD

2014 Military Training Injuries – Hearing, Balance, and Ears (MTI-HBE) teleconference peer review panel, Defense Medical Research and Development Program, CDMRP, DoD, June 2014

2014 Neurological Foundation of New Zealand, Auckland, New Zealand

2015 Students Preparing for Academic and Research Careers (SPARC) & Audiology/Hearing Science Research Travel Award (ARTA) review panel, American Speech-Language and Hearing Association, June 2015.

2015 FY15 PRMRP Pre-Application Tinnitus (PRE-TIN) teleconference peer review panel, Defense Medical Research and Development Program, CDMRP, DoD, June 2015

2015 Department of Defense Congressionally Directed Medical Research Programs (CDMRP) Medical Research Program (PRMRP) Tinnitus peer review panel, Discovery Award, August-September 2015

2015, 2016 FY15 PRMRP Tinnitus review panel (online) for the Discovery Awards, CDMRP, DoD, July-September 2015 & 2016

2016 Plural Scholarships, Council of Academic Programs in Communication Sciences and Disorders (CAPCSD). March 2016

2016 FY16 DoD/USAMRC/CDMRC/MRMC Broad Agency Announcement for Extramural Medical Research, review panel (online), May 2016

2016 Health Research Council of New Zealand, Auckland, New Zealand

2017 Neurological Foundation of New Zealand, Auckland, New Zealand

2018 FY18 DoD/USAMRC/CDMRC/MRMC and Veterans Brain Injury Center (DVBIC) Intramural Research (IMR), review panel (online), April 2018

2018 Action on Hearing Loss UK (charitable organization), United Kingdom, April 2018

2018, 2019 Foundation Pour l’Audition (charitable organization), France, May 2018 & 2019

2018 Grant Review and Reviewer Training. American Speech-Language-Hearing Foundation and the American Speech-Language-Hearing Association, June 2018

2019 Veterans Administration Merit Review, Panel on Sensory Systems and Communication, US Department of Veterans Affairs, August 2019

**e. Professional Society Membership**

1999-present Member, Acoustical Society of America

2000-present Member, Society for Neuroscience

2003, 2004, 2011 Member, Cognitive Neuroscience Society

2012 Member, Organization on Human Brain Mapping

2012-2013 Member, American Speech-Language-Hearing Association

2015-present Member, Association for Research in Otolaryngology

3. University/Campus Service

Department Service: Speech and Hearing Science

2008-2012 Member, Research and Grant Writing Committee

2009-2011 Member, Admissions Committee

2010-2011 Member, Education Policy Committee

2011-2012 Member, PhD Task Force

2012-2013 Member, Graduate Programs Committee

2012-2013 Member, Faculty Advisory Committee

2013-2014 Member, Undergraduate Programs Committee

2014-2017 Member, Audiology Task Force

2014-2016 Chair, Undergraduate Programs Committee

2014-2016 Member, Faculty Advisory Committee

2014-2015 Member, Search Committee, Open-Rank Faculty Search in Neurobiological Bases of Communication Sciences and Disorders

2015-2016 Chair, Search Committee, Open-Rank Faculty in Neurobiological Bases of Communication Sciences and Disorders

2014-2016 Director of Undergraduate Studies

2014-2016 Ex-officio member, Education Policy committee

2017-2018 Member, Awards Committee

2017-2018 Member, Program Policy Committee

1/2018-2019 Director of Undergraduate Studies

1/2018-2019 Ex-officio member, Education Policy committee

2018-2019 Member, American Sign Language (ASL) Instructor search committee

2019-2020 Member, Open Rank Faculty Search

2018-2022 Member, Faculty Advisory Committee

2019- Member, Promotion and Tenure Committee

2020- Member, Audiology Working Group

2020-2022 Chair, Awards Committee

2021-2022 Chair, American Sign Language (ASL) Instructor Search Committee

College of AHS Service

2010-2012 Member, Student Grievance Committee

2010-2011 Member, Library Committee

2011-2012 Member, Search Committee for the Head of SHS

2011-2014 Member, Bob Bilger Award Committee

2012-2014 Member, Education Policy Committee

2012-2014 Member, Elections and Credentials Committee

2013-2014 Member, Search Committee, Open Rank Faculty in Veterans with Disability

2013-2014 Member, Search Committee for the Associate Dean for Academic Affairs

2014-2016 Member, Alleged and Capricious Grading Committee

2014-present Chair, Bob Bilger Award Committee

2014-present Member, Steering Committee for the Center for Wounded Veterans in Higher Education

2017-2019 Member, Education Policy Committee

2017-2019 Member, CHAD Senior Faculty Committee

2018-2019 Member, task force on Minor in Disability Studies

2018-2020 Member, Grievance Committee

2018-2020 Member, Alleged and Capricious Grading Committee

2019 Member, review committee of Head, Speech and Hearing Science

2019-2020 Member, College Strategic Plan Core Committee

2019-2020 Member, Search Committee for Director of Chez Veterans Center

2020-2022 Member, Promotion and Tenure Committee

2020-2022 Member, Diversity, Equity and Inclusion Committee

2021-2022 Chair, Search Committee for Director of Operations and Services, Chez Veterans Center

Campus Service

2010, 2011, 2012 Lecturer for the Illinois Summer Neuroscience Institute, Neuroscience Program

2009-present Interviewer of applicants to PhD program, Neuroscience Program

2010-2011 Member, Admissions Committee, Neuroscience Program

2011 Gonfalon Carrier, Representative of the Graduate College, University Commencement

2011-2013, 2014-2015 Member, Executive Committee, Neuroscience Program

2012-2015 Member, Office of Technology Management Advisory Committee

2015-2016 Member, Inclusive Illinois

2015-2016 Member, Dean of Applied Health Sciences Search Committee

2016-2017 Member, CLEAR Awards committee, Beckman Institute

2017-2018 Member, Search Committee, Director of Office of Technology Management

2017-2020 Member, Beckman Institute Program Advisory Committee

2018-2019 Member, Faculty Senate

2019-2022 College of AHS representative, Council for Learning Outcomes Assessment

2020-2022 Member, Neuroscience Program’s Awards Committee