CURRICULUM VITAE

Wafaa A. Kaf, M.B.B.Ch., M.Sc., Ph.D., CCC-A, FAAA
Professor of Audiology
(417) 836-4456
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I. Education

2003:	**Doctor of Philosophy—Audiology** Communication Science & Disorders Department School of Health & Rehabilitation, University of Pittsburgh, Pittsburgh, PA, Dissertation: "Validity, Accuracy and Reliability of Electric Response Audiometry Using the Auditory Steady-State Response."
1992:	**Master of Sciences – Audiology** Faculty of Medicine, Assiut University, Assiut, Egypt.
1989–1992:	**Medical Resident – Audiology** Otolaryngology, Head & Neck Surgery Department, Faculty of Medicine, Assiut University, Assiut, Egypt.
1987:	**Bachelor of Medicine, Bachelor of Surgery (MBBS)** Faculty of Medicine, Assiut University, Assiut, Egypt.

II. AWARDS / RECOGNITION / NOMINATIONS

Awards

2017:	**Foundation Award for Excellence in Research, MSU.**
2016:	**The 2016 Director's Award for Outstanding Faculty Research, Honors College, MSU.**
2013:	**American Speech-Language-Hearing Association (ASHA) Research Mentoring-Pair Travel Award (RMPTA).**
2012:	Thesis advisor for a graduate student, Kelly Green, with the first-place winning oral presentation, Interdisciplinary Graduate Forum (4/14/12).
2009:	Missouri State Foundation for Excellence in Teaching Award (2009).
2009:	Margo Skinner Award for Outstanding Audiologist in Missouri, Missouri Academy of Audiology.
2008–2009:	ACE Awards for Continuing Education, ASHA

Recognitions

2018:	**Featured on the Hearing Health Magazine "Improving Diagnostic Test for Ménière's Disease".** https://hearinghealthfoundation.org/blogs/improving-diagnostic-test-for-menieres-disease
2017:	**Featured on the Hearing Health Magazine.** https://view.publitas.com/p222-4764/hearing-health-winter-2018-issue/page/1
2017:	**Speaker, March for Science Day, Springfield, MO.** https://www.facebook.com/SciMarchSpfdMO/videos/vb.1719864004994968/176356570624771/?type=2&theater
2015–2017:	**Missouri Academy of Audiology (President-Elect 2015, President 2016, & Past President 2017).**
2016:	**Outstanding recognition, Faculty of Medicine, Assiut University, Assiut, Egypt.**
2016:	**Featured on the Missouri State University "Hot Topic – Expert Source".** http://news.missouristate.edu/2016/01/07/menieres-disease/

2015:	**Featured on the Hearing Health Magazine (Page 18) -** http://hearinghealthfoundation.org/2015_researchers
2015:	**Featured on the "dug dug research made simple"** that highlights my research findings in children with Asperger's syndrome: http://www.dugdug.com/dr-wafaa-kaf-discusses-otoacoustic-emissions
2014–2015:	President-elect for the Missouri Academy of Audiology
2014:	**Visiting Scholar, EMCL Program, Joensuu yliopisto, Finland.**
2014–2016:	**Elected Member, ASHA Special Interest Group (SIG) 6 Coordinating Committee.**
2013:	**Inclusive Excellence Public Affairs: February Faculty Spotlight** Provost Office, Missouri State University - http://blogs.missouristate.edu/publicaffairs/2013/02/03/february-faculty-spotlight-dr-wafaa-kaf/
2013:	**Featuring Great Research and scholarship, Mind Eyes, Public Relations** – University Communications, Missouri State University http://blogs.missouristate.edu/mindseye?s=wafaa
2013:	**The Faculty: Wafaa Kaf- A look at teaching, research, scholarly activities or service at Missouri State.** http://magazine.missouristate.edu/2013/09/23/the-faculty-wafaa-kaf/

III. PROFESSIONAL EXPERIENCE

Faculty

Missouri State University, Springfield, MO

8/2018–present	*Coordinator, Audiology Program*
8/2013–present	*Full Professor of Audiology, MSU*
8/2008–2013	*Associate Professor of Audiology*
8/2008–2012	*Coordinator, Audiology Program*
8/2003–8/2008	*Assistant Professor of Audiology*

Faculty of Medicine, Assiut University, Assiut, Egypt

4/1992–8/2006	*Assistant Lecturer of Audiology, Otorhinolaryngology Department*

Clinical Experience

6/2017–7/2017	*Audiology Preceptor,* Speech Language Hearing Clinic, MSU
6/2016–7/2016	*Audiology Preceptor,* Speech Language Hearing Clinic, MSU
1/2013–6/2013	*Audiology Preceptor,* Speech Language Hearing Clinic, MSU
7/2003–8/2003	*Audiologist* Hearing Aid Department and Audiology Center, Eye and Ear Institute, University of Pittsburgh Medical Center (UPMC), Pittsburgh, PA
9/2002–6/2003	*Clinical Fellow Year in Audiology* Hearing Aid Department and Audiology Center, University of Pittsburgh Medical Center (UPMC), Pittsburgh, PA
4/1992–7/1998	*Medical Resident* Otorhinolaryngology Dept, Assiut University Hospitals, Assiut, Egypt
1992, 1996–1997	*Audiologist* Private Audiology Clinic, Assiut, Egypt
1994–1995	*Audiologist* Otolaryngology Dept, Asir Central Hospital, Abha, KSA

IV. RESEARCH / SCHOLOARLY ACTIVITIES

Manuscripts in Progress

(***** = corresponding author; students in italics)

1. **Kaf*, W.A,** Faddis, B., & *Green, K*. Wideband absorption tympanometry for detection of otitis media in the mouse. To be submitted to *Ear & Hearing in February 2019.*

2. *Jamos[1], A.*, **Kaf*, W.A,** & Ferraro, J, Chertoff. The effect of activating the olivocochlear fibers on cochlear microphonic in humans. To be submitted to *Hearing Research*. ([1]AuD doctoral thesis)

Peer-Review Publications (2013–2018)

1. **Kaf*, W.A.,** *Reiter, S.*, Brodeur, A., White, L., & Deal, W. (**under review: submitted on 10/14/2018**). The role of tone-burst auditory brainstem response, cortical potentials, and genetic screening: A case of syndromic auditory neuropathy spectrum disorders. *Am J Audiology*.
2. Lee, C., Guinan, J., Rutherford, M.A., **Kaf, W.A.**, *Kennedy, K.M.*, Buchman, C.A., Salt, A.N., and Lichtenhan, J.T. (accepted with revisions: submitted 10/3/2018). Cochlear compound action potentials from high-level tone bursts originate from wide cochlear regions that are offset toward the most sensitive cochlear region. *J Neurophy*.
3. **Kaf, W.A. (2018)**. Moving from Bedside to Clinic: Electrocochleography Applications. *Canadian Audiologist, 5(5)*.
4. Chakraborty, S., **Kaf, W.A.** & Lucker, J. (2018). Interactive Metronome and its application to treat auditory issues in children with autism. *The Journal of the Academy of Rehabilitative Audiology (JARA), XLX, 1–9.*
5. *Kennedy, A.*, **Kaf*, W.A.,** Ferraro, J., Delgado, R., & Lichtenhan, J. **(2017).** Human summating potential amplitudes vary with tone burst repetition rate and duration. *Frontiers in Neuroscience, volume 11, articles 429, 1–11*.
6. **Kaf*, W.A.,** & Fawzy, M. **(2017).** Middle ear function measures from single component tympanometry to wideband acoustic immittance. *American Speech-Language-Hearing Association Special Interest Group 6 (ASHA SIG6) Perspectives*.
7. **Kaf*, W.A.,** *Lewis, K.M.*, Yavuz, E., *Dixon, S.M.*, van Ess, M., Jamos, A.M., & Delgado, R.E. **(2017).** Fast click rate electrocochleography and auditory brainstem response in normal-hearing adults using Continuous Loop Averaging Deconvolution. *Ear Hear, 38(2),* 244-254.
8. Berg, S., & **Kaf, W.A.** (2016). Sudden Sensorineural Hearing Loss: A Hearing Emergency. *The Journal of Doctoral Nursing Practice, 9(2)*, 177-182.
9. **Kaf*, W.A.**, Mohamed, E.S., & Elshafiey, H. (2016). 40-Hz sinusoidal ASSR and toneburst ABR using Kalman filter to determine thresholds pre and post myringotomy with grommet tube in children with mild, low-frequency conductive hearing loss. *Am J Audiol.* 25(1), 41-53.
10. *Wilson, U.S.*, **Kaf*, W.A.,** Danesh, A.T., & Lichtenhan, J.T., **(2016).** Assessment of Low-Frequency Hearing with Narrow-Band Chirp Evoked 40-Hz Sinusoidal Auditory Steady-State Response. *Int J Audiol*. *21, 55(4):*239-47. Epub 2016 Jan 21.
11. **Kaf*, W.A.,** *Abdelhakiem, M.K., Zahirsha, Z.*, & Lichtenhan, J.T. **(2015).** Ménière's Disease: Current and Potential New Objective Measures using Electrocochleography. *Perspectives on Hearing and Hearing Disorders: Research and Diagnostics*, 19, November issue, 44-54.
12. Danesh, A.A, Lang, D., **Kaf, W.A.**, Andreassen, W.D., & Scott, D. **(2015).** Tinnitus and Hyperacusis in Autism Spectrum Disorders with Emphasis on High Functioning Individuals Diagnosed with Asperger's Syndrome. *Int J Ped Otorhinolaryngol, 79*, 1683-1688.
13. Day, M.L., Dollar, S., & **Kaf, W.A. (2015).** Rural Older Adults and Functional Health Literacy: Testing Self-Efficacy, Knowledge and Skills Resulting From Hands-On Health Promotion. *Contemporary Rural Social Work, 7(2),* 100-114.
14. **Kaf*, W.A.,** Barboa, L., *Abdelhakiem, A.K.*, & Almomani, M. **(2015).** Autism Spectrum Disorder is on the Rise: Speech Pathologists and Audiologists Must Rise Up to the Challenges. *Austin Journal of Autism & Related Disabilities, 1(1),* 1003-1007.

15. Danesh, A., **Kaf*, W.A.,** *Abdelhakiem, M.K.*, Danesh, D. **(2015).** Auditory Manifestations and Intervention in Children with Autism Spectrum Disorders. *Austin Journal of Autism & Related Disabilities, 1(1),* 1005-1010.
16. Danesh, A., **Kaf, W.A. (2015).** Putting Research into Practice for Autism Spectrum Disorder. *The Hearing Journal, 68(1):* 26-30.
17. *Pape, L., Kennedy, L.*, **Kaf*, W.A.,** & Zahirsha, Z. **(2014).** Immigration Within the United States: Prevalence of Childhood Hearing Loss Revisited. *Am J Audiol, 23(2),* 238-241. *doi:10.1044/2014.*
18. **Kaf*, W.A.,** *Masterson, C.*, Dion, N., Berg, S., & *Abdelhakiem, M.* **(2013).** Optimizing Otoscopy Competency in Audiology Students through Supplementary Otoscopy Training. *J Am Acad Audiol, 24,* 859-866.
19. **Kaf*, W.A.,** & Danesh, A. **(2013).** Distortion-Product Otoacoustic Emission and Contralateral Suppression Findings in Children with Asperger's Syndrome. *Int J Ped Otorhinolaryngol, 77,* 947-954. Available online on April 3, 2013

Peer-review Publications (2006-2012)

20. Mohamed, S.E., **Kaf*, W.A.,** Rageh, T.A., Kamel, N.F., & Elattar, A.M (2012). Evaluation of patients with vertigo of vertebrobasilar insufficiency origin using auditory brainstem response, electronystagmography and transcranial Doppler. *Int J Audiol, 51(5*), 379-388.
21. Danesh, A., & **Kaf*, W.A** (2012). DPOAEs and Contralateral acoustic stimulation and their link to sound hypersensitivity in children with Autism. *Int J Audiol, 51(4),* 345-352. Epub 2012 Feb 3
22. **Kaf*, W.A.,** & Strong, E. (2011)**.** The Promise of service-learning in pediatric audiology course on clinical training with pediatric population. *Am J Audiol, 20,* S220-S232.
23. **Kaf*, W.A.,** Barboa, L., Fisher, B., & *Snavely, L.* (2011). Effect of interdisciplinary service-learning experience for audiology and speech-language pathology students working with adults with dementia. *Am J Audiol, 20,* S241-S249. Epub 2011 Jul 15.
24. **Kaf*, W.A.** (2011). Wideband energy reflectance findings in presence of normal tympanogram in children with Down's syndrome. *Int J Pediatric Otorhinolaryngology, 75(2)*: 219-226.
25. Goldberg, L.R., Heiss, C., White, L., **Kaf, W.A.,** Becker, A., *Schindler, J.*, Dion, N., & Oswalt, J. (2010). Methamphetamine exposure, iron deficiency and implications for cognitive-communicative function: A case study. *Communication Disorders Quarterly,31(3),* 183-192.
26. Kaf*, W.A., & Danesh, A.A. (2008). Air-conduction auditory steady-state response: Comparison of interchannel recording using two modulation frequencies. *J Am. Acad. Audiol. 19(9)*: 696-707.
27. **Kaf, W.A.,** Sabo, D.L., Durrant, J.D., & Rubinstein, E. (2006). Reliability of electric response audiometry using 80-Hz auditory steady state responses. *Int. J. Audiol. 45(8),* 477-486.
28. **Kaf, W.A.,** Durrant, J.D., Sabo, D.L., Boston, R.J., *Taubman, L.B.*, and *Kovacyk, K.* (2006). Validity and accuracy of electric response audiometry using the auditory steady-state response: Evaluation in an empirical design. *Int. J. Audiol., 45(4),* 211-223.

Textbook Chapter

1. Kaf, W.A. (submitted to the Editor, 3/12/2016). Understanding the Auditory Pathway and Hearing Loss. In Cruz, A. (ed.), "Culture, Deafness $ Music: Disability Studies and a Path to Social Justice."
2. McPherson, D.L., Ballachanda, B., & **Kaf, W.A.** (2007). Middle and Long Latency Auditory Evoked Potentials. In R. Roeser, M. Valente, and H.Hosford-Dunn (eds.), "Audiology Diagnosis" Thieme: New York.

Invited Publication - Editor Review

1. **Kaf, W.A. (2015).** Autism Spectrum Disorders: Audiology Perspective. *Qitaf Magazine,* Saudi Society of Otorhinolaryngology, 9, 10-11. (Arabic Language).

2. **Kaf, W.A. (2013).** Distortion-Product Otoacoustic Emissions and Contralateral Suppression Findings in Children with Asperger's Syndrome. Online publication at dug dug Research Made Simple.

Peer-Review Published Abstracts/Conference Presentations (in the last 5 years)

1. Jamos, A., **Kaf, W.A.,** Ferraro, J. **(2018)**. The Effect of Activating the Medial Olivocochlear Bundle on Cochlear Distortions in Humans. Poster at the *AudiologyNOW Convention*, Nashville, TN (April 18-21, 2018).
2. *Lefler, S.,* **Kaf, W.A.,** Ferraro, J. **(2018).** Simultaneous Click ECochG and ABR Recording Using Earcanal and Tympanic Electrode Placements. Poster at the *AudiologyNOW Convention*, Nashville, TN (April 18-21, 2018).
3. White, L., **Kaf, W.A.,** *Reiter, S.*, Brodeur, A., Deal, P., Smith, R., Barber, S., Robinson, B. **(2017).** Case Study: The Role of Tone-Burst ABR in Diagnosing Auditory Neuropathy Spectrum Disorders. Poster at the *AudiologyNow Convention*, Indianapolis, IN (April 5-8, 2017).
4. **Kaf, W.A. (2015).** "Objective Techniques For Accurate Estimation of Mild, Low-Frequency Auditory Thresholds." – Oral Presentation at the *Missouri Academy of Audiology Scope of Practice Meeting*, St Louis, MO (September 10-11, 2015).
5. **Kaf, W.A.,** *Dixon, S., Bextermueller, K.*, & Van Ess, M. **(2015).** ECochG and ABR recording with CLAD: Normal neural adaptation versus Ménière's and vestibular migraine pilot findings. Poster Presentation at the *ASHA Convention*, Denver, CO (November 12-14, 2015).
6. *Bextermueller, K.*, **Kaf, W.A.,** Yavuz, E., Delgado, R., Jamos, A, & *Dixon, S.* **(2015).** Electrocochleography and auditory brainstem response using continuous loop averaging deconvolution. Poster presentation at the *Am Aud Soc Meeting*, Scottsdale, AZ (March, 2015).
7. *Dixon, S.*, **Kaf, W.A.,** *Bextermueller, K.*, & Jamos, A. (2014). "Fast Stimulus Rate ECochG and ABR Using Continuous Loop Averaging Deconvolution in Normal Individuals and Ménière's Patients." Podium Presentation at the MARC-MANS meeting, St Louis, MO (July 18-19-2014).
8. *Wilson, U.*, **Kaf, W.A**, Lichtenhan, J., & Danesh, A. (ARO, 2014). **"**Sinusoidal ASSR is Better than Tone-Burst Evoked ABR for Estimating Low-Frequency Hearing Thresholds." Poster presentation at the *Associat Res in Otolaryngology (ARO*) Meeting, San Diego, CA (Feb 22-26, 2014).
9. **Kaf, W.A.,** *Rafael, K., Ross, A.*, & Danesh, A. **(2013).** "Binaural Interaction Component of Click ABR and 80-Hz ASSR in Normal-Hearing Adults." Oral presentation at *The Int Evoked Response Audiometry Study Group (IERASR) Meeting*, New Orleans, LA (June 9-13, 2013).
10. *Wilson, U.*, & **Kaf, W.A. (2013).** "Accuracy of Tone-Burst ABR and 40-Hz Automated and Sinusoidal ASSR Thresholds in Normal Adults." Poster presentation at the *AudiologyNOW Convention,* Anaheim, CA (April 3-6, 2013).
11. *Horowitz, L.A.*, Faddis, B.T., & **Kaf, W.A (2013).** "Use of Wideband Absorbance to Monitor Middle Ear Status in C57BL/6J Mice." Poster presentation at the *Am Aud Society* Meeting, Scottsdale, AZ (March 7-9, 2013). T-35 Audiology Research Traineeship Summer Scholar.

Auditory Evoked Potential Workshops

1. Kaf, W.A. (2018). "Auditory Brainstem Response". Arab Cochlear Implants Conference (ACIC), Dubai, UAE (April 3-7, 2018).
2. Kaf, W.A. (2018). "Electrocochleography". ACIC, Dubai, UAE (April 3-7, 2018).
3. Kaf, W.A. (2016). "AEPs for Clinical Setting". Advanced Arab Academy of Audiology (4A), Amman, Jordan (November 23-26, 2016).
4. Kaf, W.A. (2016). "Cortical & Electrical Auditory Evoked Potentials. 4A, Amman, Jordan (November 23-26, 2016).
5. Kaf, W.A. (2015). "Advanced AEP Workshop". The 3rd Int Conference in Disorders in Audiology & Neuro-Otology Communications (iCAN), Riyadh, KSA (March 2, 2015).
6. Kaf, W.A., & Almoumani, M. (2014). "Early AEP Workshop". The 9th Int Conference of the Saudi Society of Otorhinolaryngology & Head and Neck Surgery, Riyadh, KSA (March 4-6, 2014).

7. Kaf, W.A. (2014). “Auditory Brainstem Recording: Housekeeping Items and Troubleshooting”. ABR Workshop, Ain Shams University, Cairo, Egypt (February 19-20, 2014).
8. Kaf, W.A. (2013). “Evoked Potential Audiometry Workshop”. The 3rd iCAN conference, Riyadh, KSA (December 1-4, 2013).

Directing Graduate (AuD & PhD) and Undergraduate Research Studies (2013-2018)

Chair, AuD Doctoral Thesis/Project

1. Hannah Tether—Project (2018-2019). “Comparison of Multi-Rate ASSR to Tone Burst ABR and Behavioral Thresholds in Adults with Sensorineural Hearing Loss.” **Funding:** Grad College and Industrial (PATH Medical Inc. in Germany.
2. Danae Foster—Project (2018-2019). “Multirate ASSR and Tone-burst ABR Thresholds: Normative Data.” **Funding**: Grad College and Industrial (PATH Medical Inc. in Germany).
3. Chenchen Zhang—Project (2018-2019). “Coordinated Reset Neuromodulation for tonal tinnitus using Desyncra device”. **Funding** Desyncra, Tinnitus Therapy Incorporation
4. Riley Rogan—Project. “Evaluation of New Pitch-Matching Procedures and Tinnitus Therapy in Patients with Tonal Tinnitus.” (2017-2019). **Funding** Desyncra, Tinnitus Therapy Incorporation.
5. Jordan Hoffman—Project. “Efficiency of Wideband Tympanometry in Assessing Eustachian Tube Function.” (2017-2019).
6. Shannon Lefler—Project. “Electrocochleography Recording to Different Tympanic Membrane Electrodes.” (2017-2019). **Funding**: Grad College and Industrial (Intelligent Hearing System, IHS, Corp).
7. Christy Mitchel—Project. “Feasibility of Establishing a Campus-Based Clinic and a Recommended Pilot Program for Implementation.” **Funding:** Grad College.
8. Bryan Abbot—Project. “Wideband Tympanometry: Effect of Pressurization on Middle Ear Admittance.”
9. Stephanie Scott—Project. Screening and Diagnostic ABR Testing in One Session in Newborn Hearing Screening.” **Funding:** Grad College and Industrial (Aurix, Vivosonic Inc, Canada).
10. Alana Kennedy—Thesis. “The Effect of rate on Low Frequency Tonburst Extratympanic Electrocochleography in Adults with Normal Hearing.” (2015-2016). **Funding:** Grad College.
11. Samantha Rieter—Project. “Single Case Study of a Genetic Origin.” (2015-2016). **Funding:** Grad College.
12. Jake Nuffer—Project. “Unilateral Hearing Loss: Effectiveness of Current Newborn Hearing Screening Protocols.” (2015-2016). **Funding:** Grad College.
13. Kaitlyn Kennedy—Thesis. “Spatial Irregularities of Compound Action Potential Origination in Individual Cochleae.” (2014-2015). **Funding:** Grad College and T35 Summer Research Scholarship.
14. Stephanie Goss—Project. “Relation between Emotional and Physical Stress and Hyperacusis in Women.” (2014-2016). **Funding:** Grad College.
15. Essence Whitehead—Project. “Otoacoustic Emission Findings in Normal Hearing Adults with Tinnitus.” (2014-2016). **Funding:** Grad College.
16.

(d) Research Accomplishments Relative to Departmental Criteria (2013-2018)

(See Appendix 7: Research Productivity)
(See Appendix 8: HHF Magazine)

The CSD Department Scholarship Requirements necessary for promotion to the rank of Full Professor**: Required: A total of 10 peer-review work, with a minimum of 3 paper, on 2 of which individual must be first author, and a minimum of 3 peer-review presentations is required. The faculty is encouraged to develop a program of research and culmination of sustained work over period of time, impact on the field, and to submit 1 grant for internal or external funding.**

According to the guidelines (item ** below), my scholarly work (Research & Funding) is EXCEPTIONAL.

Research Criteria (Associate to Full Professor) – 2013 to 2018

Scholarly work* which may include peer- reviewed publications and presentations as well as books/book chapters and invited publications: *(Minimum Total of 10)*

- **21 Scholarly Articles** (17 peer-review publications, 2 invited papers, 1 paper under revision, and 1 paper under reviews) = *9 first authors & 14 corresponding author*
- **44 Peer-Review Professional Presentations** (11 National, 2 State, and 33 International) – local presentations are not included!
- **8 Professional Workshops (1-2 Days)**
- **1 submitted manuscript (2018, under review) -** *first author*

74 Total Scholarly Works

Required: minimum of 3 (since previous promotion), on 2 of which individual must be first author ***

- 2013: 2
- 2014: 1
- 2015: 6
- 2016: 3
- 2017: 3
- 2018: 4

Total 19 (9 first author)

Encouraged

- Book Chapters: 1 (2016) – 1 Total
- Presentations: 8 (2013); 11 (2014); 10 (2015); 6 (2016); 4 (2017); 5 (2018) – 44 Total
- Invited Publications – Peer-review: 1 (2013); 1 (2015) – 2 Total
- Professional Workshops: 1 (2013); 2 (2014); 1 (2015); 2 (2016); 2 (2018) – 8 Total

Expand and transmit knowledge in area(s) of

I have published, on average, 3-4, peer-review papers per year, have several national and international professional presentations, and have several external funded research proposals throughout the years in the area of my expertise and line of research (auditory evoked potentials).

Expertise[6] - ***Required:*** *culmination of sustained work over period of time*

Impact on the field - ***Required***

Because of my expertise in the field of audiology in general and my research in the area of auditory evoked potentials in particular, I have been invited to submit research proposals for funding, write articles in professional magazines, serve as a visiting scholar in Finland (2014) and Spain (University of Granada). Also, I'm an expert reviewer to several audiology professional journals, textbooks, research proposals for funding. In addition, I have been invited to serve on dissertation and thesis committee (nationally & internationally).

My scholarly work has been published in tier 1 and well-respected professional journals, and have been highlighted in a variety of avenues (see Appendix 8):

- February Faculty Spotlight: Dr. Wafaa Kaf
- The Faculty: Wafaa Kaf
- Hearting Health Foundation 2015 Emerging Research Grantees
- Professor seeks to improve diagnosis process of Meniere's disease
- Hearing Health Foundation - Improving Diagnostic Test for Ménière's Disease

Grants: ***Required: submit external funding from at least 1 grant proposal***

2 Submitted Proposals (Under Review):

- 2018: Cure Within Reach-Meniere's Disease (P!: $100,00 – 20% match) (PI)
- 2018: Cure Within Reach-Meniere's Disease (P!: $100,00 – 20% match) (Co-PI)
    - 2 (2013); 2 (2014); 2 (2015); 2 (2016); 4 (2017); 2 (2018) = **14 submitted grant proposals-Requested $516,581.30**

5 Funded Proposals:

- 2013: American Speech-Language-Hearing Association (ASHA) (PI: $14,837)
- 2014: Missouri Department of Elementary & Secondary Education (CoPI: Funded $24,414)— (2014-2015)
- 2015: Hearing Health Foundation (PI: $29,217) (2015-2017)
- 2016: Missouri Department of Elementary & Secondary Education (CoPI: Funded $24,414)—($19,058.51)
- 2017: Missouri Department of Elementary & Secondary Education (CoPI: Funded $24,414)—($19,054.81)
    - **Total 10 funded = $241,296**
    - **2018: Two proposals under review-Cure Within Reach = $200,000**

*Research may be in either a specific area of speech, language, and/or hearing or related to the scholarship of teaching in CSD.
** Exceptional scholarship would consist of completed scholarly works significantly in excess of minimal requirements (15 scholarly works that include a minimum of 6 peer-reviewed publications (4 first author), research that expands knowledge in area of expertise, and considerable external funding (minimum of $15,000).
*** In the event that the faculty member is a second author on publication in which a student research advisee is first author, exception of first author requirements will be considered on a case-by-case basis.

5 Industrial Funded Research ($124,000) (PI):

- 2018: PATH Medical Device (Germany) = $34,000.00
- 2017: Six Desyncra Devices for tinnitus therapy (united Kingdom)= $27,000.00
- 2016: Aurix EP, Vivosonic, Inc (Canada)= $18,000.00
- 2015-present: Intelligent Hearing System (USA): $30,000.00
- 2013: Integrity EP500, Vivosonic, Inc (Canada)= $15,000.00)

2 Submitted Proposals (Not Funded):

- 2017: Hearing Health Foundation Grant (PI: $100,000) (PI)
- 2014: Federal Health Resources & Services Administration 2014 (CoPI: $200,000)

Involvement of students in the research process – Required (Total=56)

- **Presentations:** local+regional/national: 4 +3 (2013); 3+3 (2014); 5+4 (2015); 2 (2016); 3+1 (2017); 3+1 (2018) – **Total=34**
- **Publications:** 1 (2013); 3 (2014); 4 (2015); 1 (2016); 3 (2017); 2 (2018) – **Total=15**
- **Funded proposals (Grad College):** 1 (2013); 1 (2014); 1 (2015); 1 (2016); 1 (2017); 2 (2018) – **Total=7**

(d) Research Accomplishments Relative to Departmental Criteria (2013-2018)

(See Appendix 7: Research Productivity)
(See Appendix 8: HHF Magazine)

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Expertise[6] - ***Required:*** *culmination of sustained work over period of time*

Impact on the field - ***Required***

Because of my expertise in the field of audiology in general and my research in the area of auditory evoked potentials in particular, I have been invited to submit research proposals for funding, write articles in professional magazines, serve as a visiting scholar in Finland (2014) and Spain (University of Granada). Also, I'm an expert reviewer to several audiology professional journals, textbooks, research proposals for funding. In addition, I have been invited to serve on dissertation and thesis committee (nationally & internationally).

My scholarly work has been published in tier 1 and well-respected professional journals, and have been highlighted in a variety of avenues (see Appendix 8):

- February Faculty Spotlight: Dr. Wafaa Kaf
- The Faculty: Wafaa Kaf
- Hearting Health Foundation 2015 Emerging Research Grantees
- Professor seeks to improve diagnosis process of Meniere's disease
- Hearing Health Foundation - Improving Diagnostic Test for Ménière's Disease

Grants: ***Required: submit external funding from at least 1 grant proposal***

2 Submitted Proposals (Under Review):

- 2018: Cure Within Reach-Meniere's Disease (P!: $100,00 – 20% match) (PI)
- 2018: Cure Within Reach-Meniere's Disease (P!: $100,00 – 20% match) (Co-PI)
    - 2 (2013); 2 (2014); 2 (2015); 2 (2016); 4 (2017); 2 (2018) = **14 submitted grant proposals-Requested $516,581.30**

5 Funded Proposals:

- 2013: American Speech-Language-Hearing Association (ASHA) (PI: $14,837)
- 2014: Missouri Department of Elementary & Secondary Education (CoPI: Funded $24,414)— (2014-2015)
- 2015: Hearing Health Foundation (PI: $29,217) (2015-2017)
- 2016: Missouri Department of Elementary & Secondary Education (CoPI: Funded $24,414)—($19,058.51)
- 2017: Missouri Department of Elementary & Secondary Education (CoPI: Funded $24,414)—($19,054.81)
    - **Total 10 funded = $241,296**
    - **2018: Two proposals under review-Cure Within Reach = $200,000**

*Research may be in either a specific area of speech, language, and/or hearing or related to the scholarship of teaching in CSD.
** Exceptional scholarship would consist of completed scholarly works significantly in excess of minimal requirements (15 scholarly works that include a minimum of 6 peer-reviewed publications (4 first author), research that expands knowledge in area of expertise, and considerable external funding (minimum of $15,000).
*** In the event that the faculty member is a second author on publication in which a student research advisee is first author, exception of first author requirements will be considered on a case-by-case basis.

5 Industrial Funded Research ($124,000) (PI):

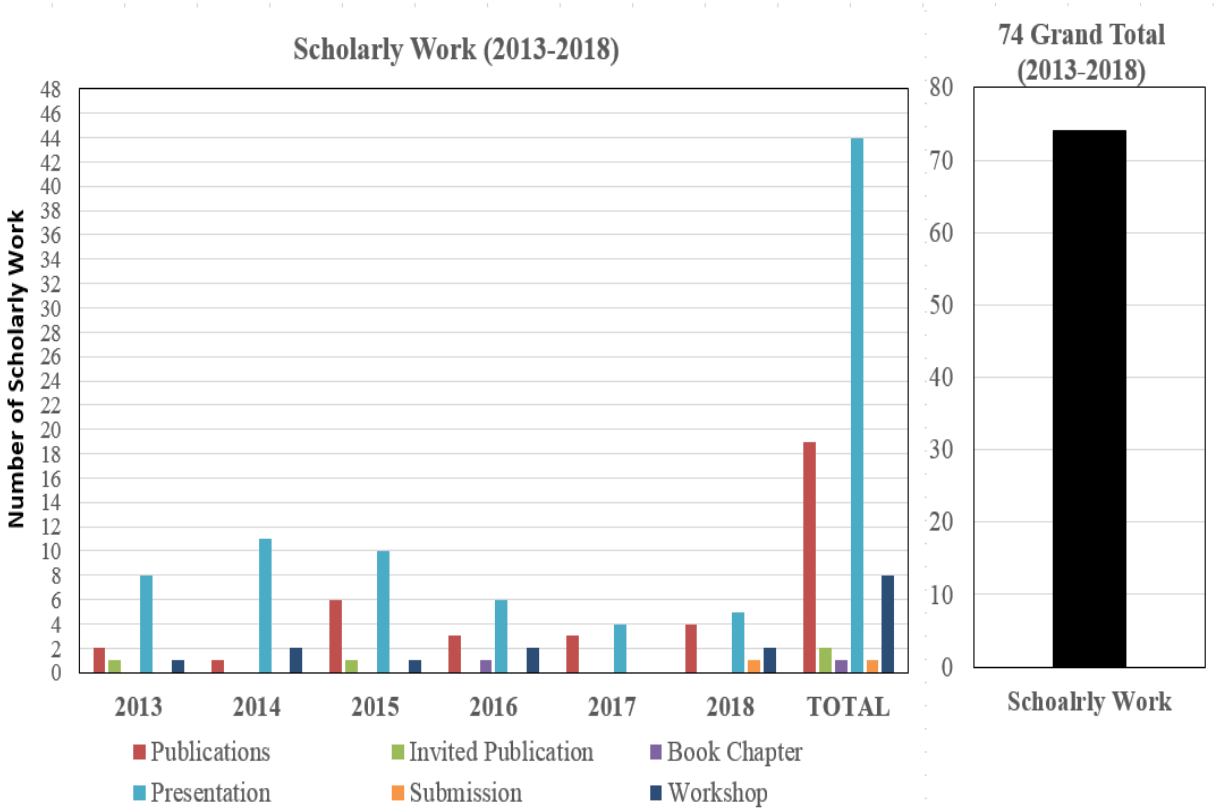
- 2018: PATH Medical Device (Germany) = $34,000.00
- 2017: Six Desyncra Devices for tinnitus therapy (united Kingdom)= $27,000.00
- 2016: Aurix EP, Vivosonic, Inc (Canada)= $18,000.00
- 2015-present: Intelligent Hearing System (USA): $30,000.00
- 2013: Integrity EP500, Vivosonic, Inc (Canada)= $15,000.00)

2 Submitted Proposals (Not Funded):

- 2017: Hearing Health Foundation Grant (PI: $100,000) (PI)
- 2014: Federal Health Resources & Services Administration 2014 (CoPI: $200,000)

Involvement of students in the research process – Required (Total=56)

- **Presentations:** local+regional/national: 4 +3 (2013); 3+3 (2014); 5+4 (2015); 2 (2016); 3+1 (2017); 3+1 (2018) – **Total=34**
- **Publications:** 1 (2013); 3 (2014); 4 (2015); 1 (2016); 3 (2017); 2 (2018) – **Total=15**
- **Funded proposals (Grad College):** 1 (2013); 1 (2014); 1 (2015); 1 (2016); 1 (2017); 2 (2018) – **Total=7**


Scholarly Work (2013-2018)
Number of Scholarly Work
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
2018
TOTAL
Publications
Invited Publication
Book Chapter
Presentation
Submission
Workshop
74 Grand Total (2013-2018)
80
70
60
50
40
30
20
10
0
Schoalrly Work

Appendix 8 – Article in the Hearing Health Foundation Magazine

https://hearinghealthfoundation.org/blogs/improving-diagnostic-test-for-menieres-disease

Hearing Health Foundation
Prevention | Research | Cure

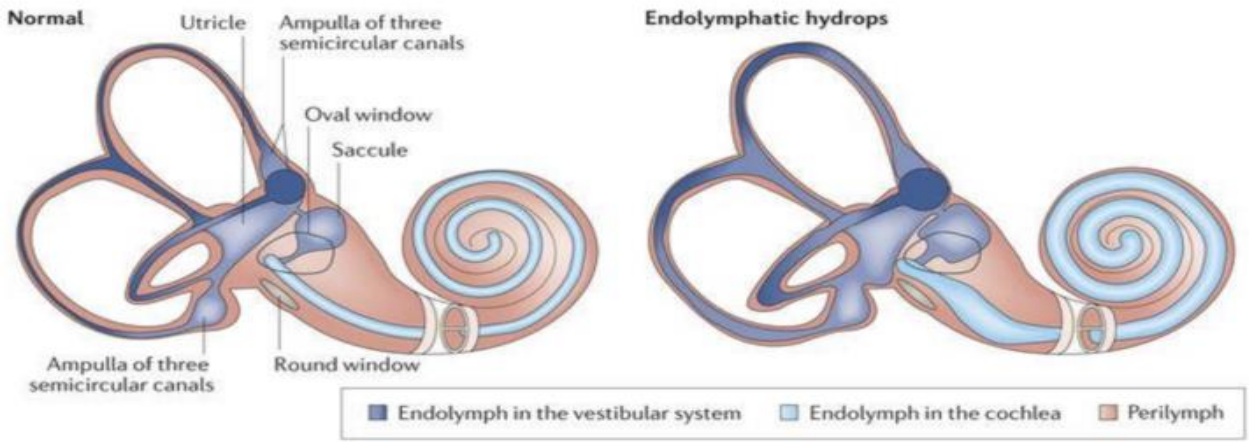
March 1, 2018

Improving Diagnostic Test for Ménière's Disease

ERG

By Wafaa Kaf, Ph.D., and Carol Stoll

Electrocochleography (ECochG) is a commonly used assessment of the auditory system, specifically the inner ear and the hearing nerve. ECochG is most often elicited by a brief acoustic stimulus, known as a "click," at a relatively low repetition rate. It measures two key responses: summating potential (SP) and action potential (AP), which assist in the diagnosis of Ménière's disease, an inner ear and balance disorder. Previous research has established that individuals with Ménière's disease are likely to have abnormally large SPs and a large SP/AP ratio. Though click ECochG has great potential to detect Ménière's disease, it lacks sensitivity, or the ability to correctly identify those with the disease. Only 69% of those with Ménière's disease are correctly diagnosed, while 31% of those with the disease have normal ECochG results. This lack of accuracy prevents its use as a definitive diagnostic tool. Hearing Health Foundation 2015 Emerging Research Grants recipient, Wafaa Kaf, Ph.D., is researching the use of a novel analysis technique called Continuous Loop Averaging Deconvolution (CLAD) to best improve the sensitivity of ECochG to high click rate for diagnosing Ménière's disease. Findings were recently published in *Ear and Hearing 2017*.



In a recently published paper in *Frontiers in Neuroscience*, Kaf's research team shares its findings on the effects of altering the parameters of the acoustic stimulus on ECochG responses to quantify the effect of stimulus rate and duration of the elicited stimuli. Kaf and her research team obtained SP measurements to 500Hz and 2000Hz tone bursts that varied in duration and repetition rate from 20 adult females with normal hearing. CCLAD was used to interpret the tracings elicited by the differing stimuli of tone bursts.

They found that SP amplitude was significantly larger when using the highest stimulus repetition rate. It is believed that the high stimulus repetition rates minimize the neural contributions and mostly reflect hair cell responses, the target of ECochG. In addition, longer duration stimuli is believed to better reflect hair cell involvement while shorter stimuli may be useful in eliciting responses reflective of neural contributions. Lastly, 2000Hz tone bursts produced larger SP amplitude as compared to 500Hz tone bursts. Therefore, 2000Hz tone bursts with a high repetition rate and long duration can be used as parameters to minimize neural contributions to SP measures whereas short duration stimuli can be used if one wishes to asses neural activity.

The data that Kaf's team published is a critical initial advancement towards ultimately understanding the SP measurement in diseased ears. Their findings not only provide normative data for tone burst ECochG across stimulus frequencies, stimulus rates, and stimulus durations, but also help others better understand how to improve sensitivity of ECochG for early diagnosis of Ménière's disease.

Wafaa Kaf, Ph.D., is a 2015 Emerging Research Grants recipient. Her grant was generously funded by The Estate of Howard F. Schum.

Tagged: Ménière's Disease, ERG, balance