

CURRICULUM VITAE

Amy Lee, Ph.D.

**EDUCATIONAL AND PROFESSIONAL HISTORY****List of Institutions Attended**

1986–1990	B.S.	Department of Biology University of Michigan
1992–1998	Ph.D.	Department of Neuroscience University of Virginia
1998–2002	Postdoctoral Fellow	Department of Pharmacology University of Washington

**Professional and Academic Positions Held**

2002–2008	Assistant Professor	Department of Pharmacology, Emory University
2008–2015	Associate Professor	Depts. of Molecular Physiology and Biophysics, Otolaryngology and Head-Neck Surgery, and Neurology, University of Iowa
2009-10	Co-Instructor	Cold Spring Harbor Laboratories, Ion Channels Summer Course
2014-19	Assistant Dean for Research	Carver College of Medicine, University of Iowa
2015-2020	Professor	Depts. of Molecular Physiology and Biophysics, Otolaryngology and Head-Neck Surgery, and Neurology, University of Iowa
2020-present	Professor	Dept. of Neuroscience, University of Texas- Austin

**Honors, Awards, Recognitions, and Outstanding Achievements**

1986	National Merit Scholar
1986	University of Michigan Alumni Scholarship
1990	Graduation with Distinction, University of Michigan
1995	Individual pre-doctoral NRSA F31 MH11074-01
1997	Eric Lothman Award in Recognition of Outstanding Achievement in Neuroscience, University of Virginia

Amy Lee, Ph.D.

1998	Individual post-doctoral NRSA F32 NS10645-01
2002	PhRMA Foundation Research Starter Award
2007	Department of Pharmacology, Emory University School of Medicine, Teaching Excellence Award
2011	Carver Research Program of Excellence Award
2012	Elected to Biophysical Society Council
2014	Women of Innovation Award, Technology Association of Iowa
2015	AAMC Basic Research Video Competition Award ( <a href="http://medresearch.tumblr.com/GRANDwinner">http://medresearch.tumblr.com/GRANDwinner</a> )
2016	University of Iowa Faculty Communicating Ideas Award
2017	University of Iowa Diversity Catalyst Award

## SERVICE

### Memberships in Professional Organizations and Offices Held

1996-present	Member, Society for Neuroscience
2008-present	Member, Association for Research in Otolaryngology
2011-present	Member, Biophysical Society
2012-2016	Council, Biophysical Society
2018	Chair, Exocytosis/Endocytosis subgroup of the Biophysical Society

### Peer Review

#### Editorial Boards

2012–2016	<i>Molecular Pharmacology</i>
2016–present	<i>Journal of Biological Chemistry</i>
2018–present	<i>Journal of General Physiology</i>

#### Manuscript Review

*Brain Research, British Journal of Pharmacology, Channels, eLife, FEBS Letters, Molecular Cellular Biochemistry, Molecular Cellular Neuroscience, Molecular Pharmacology, Nature Chemical Biology, Nature Neuroscience, Nature Communications, Neuron, Neuroscience, Neuroscience Letters, Journal of Biological Chemistry, Journal of Cellular Physiology, Journal of Comparative Neurology, Journal of General Physiology, Journal of Neurophysiology, Journal of Neuroscience, Journal of Neuroscience Methods, Journal of Physiology, PloS One, Proceedings of the National Academy of Sciences, Scientific Reports*

#### Study Sections

*National Institutes of Health*

2006	Ad hoc reviewer for F03B
2007	Ad hoc reviewer for NTRC
2011–2015	Member, NTRC study section
2015	Ad hoc reviewer for F05U

Amy Lee, Ph.D.

2017 Ad hoc reviewer for NST-2  
2017 Special Emphasis Panel ZNS1 SRB-M(02), NINDS  
2019 Special Emphasis Panel ZNS MDCN-V(02), NINDS

*American Heart Association*

2008, 2011 Cardiac Electrophysiology and Cell Transport Committee

*Medical Research Council: Neurosciences and Mental Health Board (UK)*

2007 External reviewer

*Health Research Board (Ireland)*

2007 External reviewer

*BBSRC Biochemistry & Cell Biology (United Kingdom)*

2008–2009 External Reviewer

*Austrian Science Fund*

2009 External Reviewer

*Wellcome Trust Investigator Award in Science*

2017 External Reviewer

**Scientific advisory boards and departmental/program review**

2018-present Institute for Biomedical Targeting, Dartmouth University  
2019 External Reviewer for Dept. of Molecular Pharmacology,  
Physiology, and Biotechnology, Brown University  
2021 External reviewer for University of Maryland Neuroscience and  
Cognitive Program

**MENTORING**

Postdoctoral Trainees

Anisha Moring<sup>#†</sup> 2003–2005  
Kuai Yu 2004–2005  
Guiying Cui 2005–2007  
Irina Calin-Jageman<sup>#¥</sup> 2004–2007  
Frederick Gregory<sup>#†</sup> 2006–2011  
Akira Inagaki 2009–2012  
Carl Christel<sup>#</sup> 2009–2012  
Keith Bryan<sup>\*\*¥</sup> 2009–2014  
Vasily Kerov 2012–2016  
Tian Yang 2014–2018

Current Positions

Portfolio Manager, Boehringer Ingelheim  
Assistant Research Scientist, Emory University  
Assistant Professor, Emory University  
Professor, Dominican University  
Program Manager, Neurophysiology and Cognitive  
Assistant Professor, Nagoya City University  
Vice President, US Operations at Sirion Biotech  
Staff Scientist, Integrated DNA Technologies  
Data science manager, Advance Auto parts  
Staff scientist, Decibel Therapeutic

Edgar Garza-Lopez 2016–2019 Postdoc, Loyola University  
J. Wesley Maddox<sup>#,\*</sup> 2017-

Amy Lee, Ph.D.

Graduate students

Alyssa Tippens	2002–2007
Lisa Kreiner*	2002–2008
Meagan Jenkins	2006–2009
Kristin Kim	2010–2013
Shi Yi Wang	2011–2018
Jessica Thomas <sup>#†</sup>	2011–2018
Brittany Williams <sup>*#†</sup>	2012–2019
Josue Lopez <sup>#†</sup>	2015–
Annette Klomp	2019–2020
Joseph Vecchi	2019–2020

Current Positions

Medical Science Liason, Bristol-Myers Squibb  
Contract Scientific Editor, American Journal Exports  
Senior Medical Writer, Syneos Health  
D.M.D. candidate, U. Louisville School of Dentistry  
Postdoc, Duke University  
Postdoc, Vanderbilt University  
Postdoc, University of North Carolina-Chapel Hill  
Graduate student, U. Iowa  
Graduate student, U. Iowa

Undergraduate Students

Drake Bouzek <sup>#</sup>	2011
Natalia Cardona <sup>*#†</sup>	2009–2013
Daniel Soh	2011–2014
Ji-Eun Choi	2015,16
Grant Stalker	2013–2016
Nicole de la Rosa Gonzalez <sup>†</sup>	2016, 2017
Markus Drealan	2019
Jonathan Ita	2019-2020

Current Positions

M.D., Resident, Pediatrics, Indiana University School of  
Medicine  
Lead engineer, Arconic  
DDS program, University of Iowa College of Dentistry  
Graduate student, University of Pittsburgh  
Clinical Research Coordinator, UCSF  
Undergraduate, University of Puerto Rico  
PhD program, University of Minnesota  
Undergraduate, University of Iowa

Research Associates

Xiaoni Liu	2010–2013
------------	-----------

Current Position

PhD, Consultant, Boston Consulting Group

Research Interns

Jordan Breffle	2016–2018
Samiksha Annira	2017–2018
Consuelo Ornelas <sup>†</sup>	2019

PhD student, Brandeis University  
MD student, U. Iowa Carver College of Medicine  
Post-bacc, U. Iowa

\*support on individual fellowship (NIH NRSA or AHA)

#support on institutional training grant (NIH T32) or diversity supplement

¥recipient of independent extramural research funding

†under-represented minority

**COMMITMENT TO DIVERSITY AND INCLUSION**

- Directly supervised the research training of 8 under-represented minorities (URMs) at the postdoctoral, pre-doctoral, and undergraduate levels, all of whom are currently involved in science-related careers. A number of trainees have won prestigious awards for research and/or as role models for diversity in the scientific workforce:
  - Natalia Cardona, American Heart Association Undergraduate Student Fellowship
  - Frederick Gregory, PhD, 2016 Black Engineer of the Year Award

Amy Lee, Ph.D.

- Brittany Williams, PhD, 2016 SFN Neuroscience Scholar, NIH F31 NRSA awardee, 2020 Burroughs Wellcome Postdoctoral Enrichment Program Fellow
- Jessica Thomas, PhD, 2020 Burroughs Wellcome Postdoctoral Enrichment Program Fellow
- Founded the Diversity Affairs Committee of the Interdisciplinary Graduate Program in Neuroscience at the U. Iowa to support the recruitment, retention, and career development of PhD students
- Founded the Women in Physiology group in the U. Iowa Dept. of Molecular Physiology and Biophysics to promote career development and networking opportunities for female faculty, staff, and trainees
- Developed guidelines to promote gender and cultural diversity among invited speakers for named lectures at the U.Iowa Carver College of Medicine
- Recipient of 2017 Diversity Catalyst Award, U. Iowa Carver College of Medicine.

## SCHOLARSHIP/PROFESSIONAL PRODUCTIVITY

### Publications:

#### Original articles:

1. Lee, Y.S., Lee, H.J., Crain, R.C., **Lee, A.**, and S.J. Korn. (1994) Polyunsaturated fatty acids modulate stomatal aperture and two distinct K<sup>+</sup> channels in guard cells. *Cellular signalling*. 6:181-186
2. Baraban, S.C., Lothman, E.W., **Lee, A.**, and P.G. Guyenet. (1995) Kappa opioid receptor-mediated suppression of voltage-activated K<sup>+</sup> current in a catecholaminergic cell line. *J. Pharmacol. Exp. Ther.* 273:927-933
3. **Lee, A.**, Talley, E., Rosin, D.L., and K.R. Lynch. (1995) Characterization of  $\alpha$ 2A-adrenergic receptors in GT1 neurosecretory cells. *Neuroendocrinology* 62:215-225
4. Rosin, D.L., Talley, E., **Lee, A.**, Stornetta, R.L., Gaylinn, B., Guyenet, P.G., and K.R. Lynch. (1996) Distribution of  $\alpha$ 2C-adrenergic receptor-like immunoreactivity in the rat central nervous system. *J. Comp. Neurol.* 372: 135-165
5. Talley, E., Rosin, D.L., **Lee, A.**, Guyenet, P.G., and K.R. Lynch. (1996) Distribution of  $\alpha$ 2A-adrenergic receptor-like immunoreactivity in the rat central nervous system. *J. Comp. Neurol.* 372:111-134
6. **Lee, A.**, Wissekerke, A.E.W., Rosin, D.L., and K.R. Lynch. (1998) Localization of  $\alpha$ 2C-adrenergic receptor immunoreactivity in catecholaminergic neurons in the rat central nervous system. *Neuroscience* 84:1085-96
7. Milner, T.A., **Lee, A.**, Aicher, S.A., and D.L. Rosin. (1998) Hippocampal  $\alpha$ 2A-adrenergic receptors are located predominantly presynaptically but are also found postsynaptically and in selective astrocytes. *J. Comp. Neurol.* 395:310-27
8. **Lee, A.**, Rosin, D.L., and E.J. Van Bockstaele. (1998)  $\alpha$ 2A-adrenergic receptors in the rat nucleus locus coeruleus: subcellular localization in catecholaminergic dendrites, astrocytes, and presynaptic axon terminals. *Brain Res.* 795:157-69
9. **Lee, A.**, Rosin, D.L., and E.J. Van Bockstaele. (1998) Ultrastructural evidence for prominent postsynaptic localization of  $\alpha$ 2C-adrenergic receptors in catecholaminergic dendrites in the rat nucleus locus coeruleus. *J. Comp. Neurol.*

394:218-29

10. Milner, T.A., Rosin, D.L., **Lee, A.**, and S.A. Aicher. (1999)  $\alpha$ 2A-adrenergic receptors are primarily presynaptic heteroreceptors in the C1 area of the rat rostral ventrolateral medulla. *Brain Res.* 821:200-11
11. **Lee, A.**, Wong, S.T., Gallagher, D., Li, B., Storm, D.R., Scheuer, T., and W.A. Catterall. (1999)  $\text{Ca}^{2+}$ /calmodulin binds to and modulates P/Q-type calcium channels. *Nature* 399:155-159
12. **Lee, A.**, Scheuer, T., and W.A. Catterall. (2000)  $\text{Ca}^{2+}$ / calmodulin- dependent facilitation and inactivation of P/Q- type  $\text{Ca}^{2+}$  channels. *J. Neurosci.* 20: 6830-6838
13. Hettinger, B.D., **Lee, A.**, Linden, J., and D.L. Rosin. (2001) Ultrastructural localization of adenosine  $\text{A}_{2A}$  receptors suggests multiple cellular sites for modulation of GABAergic neurons in rat striatum. *J. Comp. Neurol.* 431:331-346
14. **Lee, A.**, Westenbroek, R.E., Haeseleer, F., Palczewski, K., Scheuer, T., and W.A. Catterall. (2002) Differential modulation of  $\text{Ca}_v2.1$  channels by calmodulin and  $\text{Ca}^{2+}$ -binding protein 1. *Nat. Neuroscience.* 5(3): 210-217
15. **Lee, A.**, Zhou, H., Scheuer, T., and W.A. Catterall. (2003) Molecular determinants of  $\text{Ca}^{2+}$ - and calmodulin-dependent regulation of  $\text{Ca}_v2.1$ . *Proc. Natl. Acad. Sci.U.S.A.* 100:16059-16064
16. Haeseleer, F., Imanishi, Y., Maeda, T., Possin, D., Maeda, A., **Lee, A.**, Rieke, F., and K. Palczewski. (2004) Essential role of  $\text{Ca}^{2+}$ -binding protein 4, a  $\text{Ca}_v1.4$  channel regulator, in photoreceptor synaptic function. *Nat. Neurosci.* 7: 1079-1087
17. Zhou, H., Kim, S.-A., Kirk, E.A., Tippens, A. L., Sun, H., Haeseleer, F., and **A. Lee.** (2004)  $\text{Ca}^{2+}$ -binding protein-1 facilitates and forms a postsynaptic complex with  $\text{Ca}_v1.2$  (L-type)  $\text{Ca}^{2+}$  channels. *J. Neurosci.* 24:4698-4708
18. Zhou, H., Yu, K., McCoy, K.L., and **A. Lee.** (2005) Molecular mechanism for divergent regulation of  $\text{Ca}_v1.2$   $\text{Ca}^{2+}$  channels by calmodulin and  $\text{Ca}^{2+}$ -binding protein-1. *J. Biol. Chem.* 280:29612-29619
19. Cooper, D.S., Saxena, N.C., Moring, A.G., **Lee, A.**, and I. Choi. (2005) Molecular and functional characterization of the electroneutral  $\text{Na}/\text{HCO}_3$  cotransporter (NBCn1) in rat hippocampal neurons. *J. Biol. Chem.* 280: 17823-17830
20. Kreiner, L., and **A. Lee.** (2006) Endogenous and exogenous  $\text{Ca}^{2+}$  buffers differentially modulate  $\text{Ca}^{2+}$ -dependent inactivation of  $\text{Ca}_v2.1$   $\text{Ca}^{2+}$  channels. *J. Biol. Chem.* 281: 4691-4698
21. Cui, G., Meyer, A.C., Calin-Jageman, I., Neef, J., Haeseleer, F., Moser, T. and **A. Lee.** (2007)  $\text{Ca}^{2+}$ -binding proteins tune  $\text{Ca}^{2+}$ -feedback to  $\text{Ca}_v1.3$  channels in mouse auditory hair cells. *J. Physiol.* 585: 791-803 (featured in "Perspectives" article by J. Striessnig (2007) *J. Physiol.* 585: 643-644)
22. **Lee, A.**, Jimenez, A., Cui, G., and F. Haeseleer. (2007) Phosphorylation of CaBP4 by protein kinase C zeta in photoreceptors. *J. Neurosci.* 27:12743-12754
23. Tippens, A.L., and **A. Lee.** (2007) Caldendrin: a neuron-specific modulator of  $\text{Ca}_v1.2$  (L-type)  $\text{Ca}^{2+}$  channels. *J. Biol. Chem.* 282:8464-8473
24. Calin-Jageman, I., Yu, K., Hall, R.A., Mei, L., and **A. Lee.** (2007) Erbin enhances voltage-dependent facilitation of  $\text{Ca}_v1.3$   $\text{Ca}^{2+}$  channels through relief of an autoinhibitory domain in the  $\text{Ca}_v1.3$   $\alpha_1$  subunit *J. Neurosci.* 27:1374-1385

25. Yu, K., Xiao, Q., Cui G., **Lee, A.**, and H. C. Hartzell. (2008) The Best Disease-Linked Cl Channel hBest1 Regulates  $Ca_v1$  (L-type)  $Ca^{2+}$  Channels Via SH3-binding Domains. *J. Neurosci.* 28:5660-5670
26. Tippens, A.L., Pare, J.-F., Moosmang, S., Milner, T.A., Smith, Y., and **A. Lee.** (2008) Ultrastructural evidence for pre- and post-synaptic localization of  $Ca_v1.2$  L-type  $Ca^{2+}$  channels in the rat hippocampus. *J.Comp.Neurol.* 506:569-583
27. Rieke, F., **Lee, A.**, and F. Haeseleer. (2008) Characterization of  $Ca^{2+}$ -binding protein 5 knockout mouse retina. *Invest. Ophthalmol. Vis. Sci.* 49:5126-5135
28. Kreiner, L., Christel, C.J., Benveniste, M., Schwaller, B., and **A. Lee.** (2010) Compensatory regulation of  $Ca_v2.1$   $Ca^{2+}$  channels in cerebellar Purkinje neurons lacking parvalbumin and calbindin D-28k. *J. Neurophysiol.* 103: 371-381
29. Jenkins, M.A., Christel, C.J., Jiao, Y., Abiria, S., Kim, K.Y., Usachev, Y.M., Obermair, G.J., Colbran, R.J., and **A. Lee.** (2010)  $Ca^{2+}$ -dependent facilitation of  $Ca_v1.3$   $Ca^{2+}$  channels by densin and  $Ca^{2+}$ /calmodulin-dependent protein kinase II. *J. Neurosci.* 30:5125-5135
30. Frank,T., Rutherford, M.A., Strenzke, N., Neef, A., Pangršič , T., Khimich, D., Fetjova, A., Gundelfinger, E.D., Liberman, M.C., Harke, B., Bryan, K.E., **Lee, A.**, Egner, A., Riedel, D., and T. Moser. (2010) Bassoon and the Synaptic Ribbon Organize  $Ca^{2+}$  Channels and Vesicles to Add Release Sites and Promote Refilling. *Neuron* 68: 724-738
31. Gregory, F.D., Bryan, K.E., Pangršič ,T., Calin-Jageman,I.E., Moser, T., and **A. Lee.** (2011) Harmonin inhibits presynaptic  $Ca_v1.3$   $Ca^{2+}$  channels in mouse inner hair cells. *Nat. Neurosci.* 14:1109-1111
32. Oz, S., Tsemakhovich. V., Christel, C.J., **Lee, A.**, and N. Dascal. (2011) CaBP1 regulates voltage-dependent inactivation and activation of  $Ca_v1.2$  (L-type) calcium channels. *J. Biol. Chem.* 286:13945-13953
33. Lee, A.S., Ra, S., Rajadhyaksha, A.M., Britt, J.K., Jesus-Cortes, D. H., Gonzales, K. L., Moosmang, S., **Lee, A.**, Hofmann, F., Pieper, A.A., and A. M. Rajadhyaksha. (2012) Forebrain elimination of *CACNA1C* mediates anxiety-like behavior in mice. *Mol. Psychiatr.* 17:1054-1055
34. Lee, A.S., Gonzales, K.L., **Lee, A.**, Moosmang, S., Hofmann, F., Pieper, A.A., and A. M. Rajadhyaksha. (2012) Selective genetic deletion of *CACNA1C* in the mouse prefrontal cortex. *Mol. Psychiatr.* 17:1051
35. Schrauwen, I., Helfmann, S., Inagaki, A., Wolk, F., Tabatabaiefar, M.A., Picher M.M., Sommen, M., ZazoSeco, C., Kremer, H., Dheedene, A., Claes, C., Fransen,E., Reimnitz, F., Diederichsen, U., HashemzadehM., Couke, P., **Lee, A.**, Moser, T., and G. Van Camp. (2012) A mutation in *CABP2*, expressed in cochlear hair cells, causes autosomal recessive hearing impairment. *Am. J. Hum. Genet.* 91(4):636-45
36. Christel, C.J., Schaer, R., Wang, S., Henzi, T., Kreiner, L., Grabs, D., Schwaller, B., and **A. Lee.** (2012) Calretinin regulates  $Ca^{2+}$ -dependent inactivation and facilitation of  $Ca_v2.1$   $Ca^{2+}$  channels through a direct interaction with the  $\alpha_12.1$  subunit. *J. Biol. Chem.* 287:39766-39775
37. Christel, C.J., Cardona, N., Mesirca, P., Herrmann, S., Hofmann, F., Striessnig, J., Ludwig, A., Mangoni, M.E., and **A. Lee.** (2012) Distinct localization and modulation

- of Ca<sub>v</sub>1.2 and Ca<sub>v</sub>1.3 L-type Ca<sup>2+</sup> channels in mouse sinoatrial node. *J. Physiol.* 590: 6327-6341
38. Zou, J., **Lee, A.**, and J. Yang. (2012) The expression of whirlin and Ca<sub>v</sub>1.3 $\alpha_1$  is mutually independent in photoreceptors. *Vision Res.* 75:53-59
  39. Haeseleer, F., Sokal, I., Gregory, F.D., and **A. Lee.** (2013) Protein phosphatase 2A dephosphorylates CaBP4 in the retina and regulates CaBP4 function. *Invest. Ophthalmol. Vis. Sci.* 54:1214-1226
  40. Oz, S., Benmocha, A., Sasson, Y., Sachyani, D., Almagor, L., **Lee, A.**, Hirsch, J. A., and N. Dascal. (2013) Competitive and non-competitive regulation of calcium-dependent inactivation in Ca<sub>v</sub>1.2 L-type Ca<sup>2+</sup> channels by calmodulin and Ca<sup>2+</sup>-binding protein 1. *J. Biol Chem.* 288:12680-12691
  41. Hall, D.D., Dai, S., Tseng, P.Y., Malik, Z., Nguyen, M., Matt, L., Schnizler, K., Shepherd, A., Mohapatra, D. P., Tsuruta, F., Dolmetsch, R.E., Christel, C. J., **Lee, A.**, Burette, A., Weinberg, R.J., and J. W. Hell. (2013) Competition between  $\alpha$ -actinin and Ca<sup>2+</sup>/calmodulin controls surface retention of the L-type Ca<sup>2+</sup> channel Ca<sub>v</sub>1.2. *Neuron* 78:483-497
  42. Inagaki, A., and **A. Lee.** (2013) Developmental alterations in the biophysical properties of Ca<sub>v</sub>1.3 Ca<sup>2+</sup> channels in mouse inner hair cells. *Channels* 7:171-181
  43. Gregory, F. D., Pangrsic, T., Calin-Jageman, I. E., Moser, T., and **A. Lee.** (2013) Harmonin enhances voltage-dependent facilitation of Ca<sub>v</sub>1.3 channels and synchronous exocytosis in mouse inner hair cells. *J. Physiol.* 591:3252-3269
  44. Knoflach, D., Kerov, V., Sartori, S. B., Obermair, G. J., Schmuckermair, C., Liu, X., Sothilingam, V., Garrido, M. G., Baker, S., Glösmann, M., Schicker, K., Seeliger, M., **Lee, A.**, and A. Koschak. (2013) Ca<sub>v</sub>1.4 IT mouse as model for vision impairment in human Congenital Stationary Night Blindness Type 2. *Channels* 7:502-512
  45. Liu, X., Kerov, V., Haeseleer, F., Majumder, A., Artemyev, N., Baker, S.A., and **A. Lee.** (2013) Dysregulation of Ca<sub>v</sub>1.4 channels disrupts the maturation of photoreceptor synaptic ribbons in congenital stationary night blindness type 2. *Channels* 7:513-522
  46. Núñez-Santana, F.L., Oh, M. M., Antion, M. D., **Lee, A.**, Hell, J.W., and J.F.Disterhoft. (2014) Surface L-type Ca<sup>2+</sup> channel expression levels are increased in aged hippocampus. *Aging Cell* 12157: 111–120
  47. Inagaki, A., Frank C.A., Usachev, Y.M., Benveniste, M., and **A. Lee.** (2014) Pharmacological correction of gating defects in the voltage-gated Ca<sub>v</sub>2.1 Ca<sup>2+</sup> channel due to a familial hemiplegic migraine mutation. *Neuron* 81: 91-102
  48. Kim, K.Y., Scholl, E. S., Liu, X., Shepherd, A., Haeseleer, F., and **A. Lee.** (2014) Localization and expression of CaBP1/caldendrin in the mouse brain. *Neuroscience* 268:33-47
  49. **Lee, A.**, Wang, S., Williams, B., and F. Haeseleer. (2015) Characterization of Ca<sub>v</sub>1.4 complexes ( $\alpha_1$ 1.4,  $\beta_2$ ,  $\alpha_2\delta_4$ ) in HEK293T cells and in the retina. *J. Biol. Chem.* 290:1505-1521
  50. Scharinger, A., Eckrich, S., Vandael, D. H., Schonig, K., Koschak, A., Hecker, D., Kaur, G., **Lee, A.**, Sah, A., Bartsch, D., Benedetti, B., Lieb, A., Schick, B., Singewald, N.,



- Sinnesger-Brauns, M. J., Carbone, E., Engel, J., and J. Striessnig. (2015) Cell-type-specific tuning of  $\text{Ca}_v1.3$   $\text{Ca}^{2+}$ -channels by a C-terminal automodulatory domain. *Front. Cell. Neurosci.* 9:309
51. Cao, Y., Sarria, I., Fehlhaber, K.E., Kamasawa, N., Orlandi, C., James, K. N., Hazen, J.L., Gardner, M.R., Farzan, M., **Lee, A.**, Baker, S., Baldwin, K., Sampath, A.P., and K.A. Martemyanov. (2015) Mechanism for Selective Synaptic Wiring of Rod Photoreceptors into the Retinal Circuitry and Its Role in Vision. *Neuron* 87:1248-1260
  52. Yang, T., Scholl, E.S., Pan, N., Fritsch, B., Haeseleer, F. and **A. Lee.** (2016) Expression and localization of CaBP  $\text{Ca}^{2+}$  Binding Proteins in the mouse cochlea. *PLoS One* 25: e0147495
  53. Haeseleer, F., Williams, B., and **A. Lee.** (2016) Characterization of C-terminal splice variants of  $\text{Ca}_v1.4$   $\text{Ca}^{2+}$  Channels in human retina. *J. Biol. Chem.*, 291:15663-73
  54. Krueger, J.N., Moore, S.J., Parent, R., **Lee, A.**, and G.G. Murphy. (2016) A novel mouse model of the aged brain: Over-expression of the L-type voltage-gated calcium channel  $\text{Ca}_v1.3$ . *Behav. Brain Res.*, pii: S0166-4328(16)30418-1
  55. Stanika, R., Campiglio, M., Pinggera, A., **Lee, A.**, Striessnig, J., Flucher, B., and G. Obermair. (2016) Splice variants of the  $\text{Ca}_v1.3$  L-type calcium channel regulate dendritic spine morphology. *Sci. Reports* 6:34528
  56. Sinha, R., **Lee, A.**, Rieke, F., and F. Haeseleer. (2016) Lack of CaBP1/caldendrin or CaBP2 leads to altered ganglion cell responses. *eNeuro* 3(5). pii: ENEURO.0099-16.2016
  57. Zhu, L., Almaça, J., Dadi, P.K., Hong, H., Sakamoto, W., Rossi, M., Lee, R.J., Vierra, N.C., Lu, H., Cui, Y., McMillin, S.M., Perry, N.A., Gurevich, V.V., **Lee, A.**, Kuo, B., Leapman, R.D., Matschinsky, F.M., Doliba, N.M., Urs, N.M., Caron, M.G., Jacobson, D.A., Caicedo, A., and J. Wess. (2017)  $\beta$ -Arrestin-2 is an essential regulator of pancreatic  $\beta$ -cell function under physiological and pathophysiological conditions. *Nat. Commun.* 8:14295
  58. Martínez-Rivera, A., Hao, J., Tropea, T.F., Giordano, T.P., Kosovskiy, M., Rice, R.C., **Lee, A.**, Huganir, R.L., Striessnig, J., Addy, N.A., Han, S., and A.M. Rajadhyaksha. (2017) Enhancing VTA  $\text{Ca}_v1.3$  L-type  $\text{Ca}^{2+}$  channel activity promotes cocaine and mood-related behaviors via overlapping AMPA receptor mechanisms in the nucleus accumbens. *Mol. Psychiatry* (doi: 10.1038/mp.2017.9).
  59. Wang S, Stanika RI, Wang X, Hagen J, Kennedy MB, Obermair GJ, Colbran RJ, **Lee A.** (2017) Densin-180 controls the trafficking and signaling of voltage-gated  $\text{Ca}_v1.2$   $\text{Ca}^{2+}$  channels at excitatory synapses. *J. Neurosci.* 37:4679-4691.
  60. Wang, X., Marks, C.R., Perfitt, T.L., Nakagawa, T., **Lee, A.**, Jacobson, D.A., and R.J. Colbran. (2017) A novel mechanism for  $\text{Ca}^{2+}$ /calmodulin-dependent protein kinase II targeting to L-type  $\text{Ca}^{2+}$  channels that initiates long-range signaling to the nucleus. *J. Biol. Chem.* 292:17324-17336.
  61. Thomas, J.R., Hagen, J., Soh, D., and **A. Lee.** (2018) Molecular moieties masking  $\text{Ca}^{2+}$ -dependent facilitation of voltage-gated  $\text{Ca}_v2.2$   $\text{Ca}^{2+}$  channels. *J. Gen. Physiol.* 150: 83-94.
  62. Yang, T., Choi, J.E., Soh, D., Tobin, K., Joiner, M.L., Hansen, M., and **A. Lee.** (2018) CaBP1 regulates  $\text{Ca}_v1$  L-type  $\text{Ca}^{2+}$  channels and their coupling to neurite growth

- and gene transcription in mouse spiral ganglion neurons. *Mol. Cell. Neurosci.* 88:342-352.
63. Yang, T., Hu, N., Pangrsic, T., Green, S.H., Hansen, M. and **A. Lee**. (2018) Functions of CaBP1 and CaBP2 in the peripheral auditory system. *Hearing Res.* 364:48-58.
  64. Yang, T., Britt, J.K., Cintrón-Pérez, C.J., Vázquez-Rosa, E., Tobin, K.V., Stalker, G., Hardie, J., Taugher, R.J., Wemmie, J., Pieper, A.A., and **A. Lee**. (2018) Ca<sup>2+</sup> binding protein 1 regulates hippocampal-dependent memory and synaptic plasticity. *Neuroscience* 380:90-102.
  65. Nanou, E., **Lee, A.**, and W.A. Catterall. (2018) Control of excitation/inhibition balance in a hippocampal circuit by calcium sensor protein regulation of presynaptic calcium channels. *J. Neurosci.* 38:4430-4440.
  66. Kerov, V., Laird, J.G., Joiner, M.L., Knecht, S., Soh, D., Hagen, J., Gardner, S.H., Gutierrez, W., Yoshimatsu, T., Bhattarai, S., Puthusser, T., Artemyev, N.O., Drack, A.V., Wong, R.O., Baker, S.A., and **A. Lee**. (2018)  $\alpha_2\delta$ -4 is required for the molecular and structural organization of rod and cone photoreceptor synapses. *J. Neurosci.* 38: 6145-6160.
  67. Garza-Lopez, E., Lopez, J., Hagen, J., Sheffield, R., Meiner, V. and **A. Lee**. (2018) Role of a conserved glutamine in the function of voltage-gated Ca<sup>2+</sup> channels revealed by a mutation in human *CACNA1D*. *J. Biol. Chem.* 293: 14444-14454.
  68. Williams, B., Haeseleer, F., and **A. Lee**. (2018) Splicing of an automodulatory in Ca<sub>v</sub>1.4 Ca<sup>2+</sup> channels confers distinct regulation by calmodulin. *J. Gen. Physiol.* 150:1676-1687.
  69. Kim, Y., Bhatti, D., Lee, K.-W., Medihan, L., Cheng, J., Yan, Z., Kooiker, C., Song, C., Ahn, J.-H., Obermair, G., Wei, J., Zhong, P., **Lee, A.**, Gresack, J., and P. Greengard. (2019) Ahnak scaffolds p11/Anxa2 complex and L-type voltage-gated calcium channel and modulates depressive behavior. *Mol. Psychiatry*, doi: 10.1038/s41380-019-0371-y.
  70. Laird J.G., Gardner S.H., Kopel A.J., Kerov V., **Lee A.**, Baker S.A. (2019) Rescue of rod synapses by induction of Ca<sub>v</sub>  $\alpha_{1F}$  in the mature Ca<sub>v</sub>1.4 knockout mouse retina. *Invest. Ophthalmol. Vis. Sci.* 60:3150-3161.
  71. Maddox, J.W., Randall, K., Williams, B, Hagen, J, Derr, P.J., Kerov, V., Della Santina, L, Baker S.A., Hoon, M., and **A. Lee**. A dual role for Ca<sub>v</sub>1.4 Ca<sup>2+</sup> channels in the molecular and structural organization of the rod photoreceptor synapse (in press, *eLife*)
  72. Williams, B., Lopez, J., Maddox, J.W., and **A. Lee**. Functional impact of a congenital stationary night blindness type 2 mutation depends on subunit composition of Ca<sub>v</sub>1.4 Ca<sup>2+</sup> channels (in revision, *J. Biol. Chem.*)
  73. Mesirca, P., Mamaeva, D., Bidaud, I., Davaze, R., DiFrancesco, M.-L., Mitutsova, V., Torrente, A.G., Arsic, N., Nargeot, J., Striessnig, J., **Lee, A.**, Lamb, N.J., Mangoni, M.E., Fernandez, A. Cardiac engraftment and differentiation of muscle-derived stem cells into pacemaker cells improve heart rhythm of bradycardic ion channel mutant mice (in revision, *Nat. Commun.*)

#### Invited Reviews:

1. Calin-Jageman, I. and **A. Lee**. (2008) Ca<sub>v</sub>1 L-type Ca<sup>2+</sup> channel signaling complexes in neurons. *J. Neurochem.* 105: 573-583

Amy Lee, Ph.D.

2. Haeseleer, F. and **A. Lee** (2009) CaBP4. UCSD *Nature Molecule Pages*, doi:10.1038/mp.a004098.01
3. Christel, C. and **A. Lee**. (2012) Electrophysiological analysis of Ca<sup>2+</sup>-dependent modulation of voltage-gated Ca<sup>2+</sup> channels. *Biochem. Biophys. Acta* 1820:1243-1252
4. Lee, A., Fakler, B., Kaczmarek, L.K., and L. L. Isom. (2014) More than a pore: ion channel signaling complexes. *J. Neurosci.* 34(46): 15159-15169
5. Joiner, M.L. and **A. Lee**. (2015) Voltage-gated Ca<sub>v</sub>1 channels in disorders of vision and hearing. *Current Mol. Pharmacol.* 8:143-148
6. Hardie, J. and **A. Lee**. (2015) Decalmodulation of Ca<sub>v</sub>1 channels by CaBPs. *Channels* 8:1-5
7. Kerov, V. and **A. Lee**. (2015) Degrading vision with too much Ca<sup>2+</sup>. *Channels* 9:221-222
8. Thomas, J. and **A. Lee**. (2016) Measuring Ca<sup>2+</sup>-Dependent Modulation of Voltage-Gated Ca<sup>2+</sup> Channels in HEK-293T Cells. *Cold Spring Harb. Protocols* 2016(9):pdb.prot087213
9. Dolphin, A.C. and **A. Lee**. (2020) Presynaptic Ca<sup>2+</sup> channels: specialized control of synaptic neurotransmitter release. *Nat. Rev. Neurosci.* 21:213-229.
10. Maddox, J.W., Williams, B., and **A. Lee**. Ca<sup>2+</sup> channels in retinal function and disease. *Ann.Rev. Vis. Sci.* (in prep)

#### Book Chapters:

1. **Lee, A.**, and K.R. Lynch. (1996) Intracellular α<sub>2A</sub>-adrenergic receptors in neurons and GT1 neurosecretory cells. In: Alpha-2 Adrenergic Receptors: Structure, Function, and Therapeutic Implications. S. Lanier and L. Limbird, eds. pp. 129-139
2. **Lee, A.**, and M.E. Durieux. (1998) The use of *Xenopus laevis* oocytes for the study of G-protein-coupled receptors. In: Identification and Expression of G-protein-coupled Receptors. K.R. Lynch, ed. pp. 73-95
3. Rosin, D.L., Hettinger, B.D., **Lee, A.**, and J. Linden. (2003) Anatomy of adenosine A2A receptors in brain: morphological substrates for integration of striatal function. *Neurology* 61: S12-18
4. **Lee, A.**, and W.A. Catterall. (2003) Ca<sup>2+</sup>-dependent modulation of voltage-gated Ca<sup>2+</sup> channels. In: Voltage-gated Ca<sup>2+</sup> Channels. G. Zamponi, ed., Landes Bioscience, Austin.
5. **Lee, A.** (2008, 2014) *Neuromodulation of Ca<sup>2+</sup> channels*. In: Encyclopedia of Neuroscience. L. Squire, ed. Academic Press, Oxford.
6. Sheng, Z.H., **Lee, A.**, and W.A. Catterall. (2008) Initiation and Regulation of Synaptic Transmission by Presynaptic Calcium Channel Signaling Complexes. In: Structural and Functional Organization of the Synapse. J. Hell and M. Ehlers, eds.

#### **Grants Awarded**

#### **Active Research Support:**

##### National Institutes of Health

R01 EY026817 *Calcium channels in retinal photoreceptors*

Role: PI, \$1,526,689 direct costs 03/01/17–02/28/22

Amy Lee, Ph.D.

R03 TR002916 *Illuminating the functions of CACNA2D4 in the brain*  
Role: PI, \$100,000 direct costs 6/01/19-5/31/20 (NCE through 5/31/21)

F32 EY029953, Voltage-gated calcium channels in the development of photoreceptor synapses (PI: J.Wesley Maddox)  
Role: Sponsor, 7/01/19-6/30/22

Internal funding

INI Accelerator Grant  
Role: PI, \$100,000 11/14/18-11/13/20

Carver Collaborative Research Grant  
Role: PI, \$50,000 direct costs 7/1/18-6/30/20

**Previous Research Support:**

National Institutes of Health

R01 NS084190 *Regulation of neuronal calcium channels*  
Role: PI, \$1,818,441 direct costs, 12/01/13-11/30/19

R01 DC009433 *Regulation of auditory calcium channels*  
Role: PI, \$1,517,498 direct costs, 12/15/08–11/30/19

R21 EY027054 *Rescue of photoreceptor synapses*  
Role: Co-I, \$275,000 direct costs, 08/01/16-07/31/18

R01 EY020850 *Regulation of L-type calcium channels by CaBP4*  
Role: Co-I, subaward: \$395,000 direct costs, 9/1/10–8/31/15

P30 DC 010362 *Iowa Center for Molecular Auditory Neuroscience*  
Role: Consultant, \$421,467 direct costs, 9/01/10-08/31/15

R01 HL087120 *Modulation of Cav 1.3 L-type Ca<sup>2+</sup> channels by PDZ-protein interactions*  
Role: PI, \$1,000,000 direct costs, 5/1/09–4/30/13

R55 DC009433, *Regulation of auditory calcium channels*  
Role: PI, \$80,000 direct costs, 4/01/08-03/30/09

R01 NS044922 *Regulation of neuronal Ca<sup>2+</sup> channels by CaBP1*; (PI: Amy Lee)  
Role: PI, \$1,250,000 direct costs, 12/01/02-11/30/07

R03 AG021723, *Calcium channel modulation by CaBP1 during aging*  
Role: PI, \$50,000 direct costs, 12/01/02-11/30/03

Department of Defense

MR130438 Prevention of Noise Damage to Cochlear Synapses

Amy Lee, Ph.D.

Role: Co-I, \$461,688 direct costs, 9/30/14-9/29/17

Other Agencies

Carver Collaborative Research Grant

Role: PI, \$50,000 direct costs, 2/1/11-3/31/13

Israel Binational Science Foundation Research Grant

Role: co-PI, \$40,000 direct costs, 9/01/06-8/30/10

American Heart Association Grant-in-Aid

Role: PI, \$140,000 direct costs, 7/01/07-6/30/09

Whitehall Foundation Research Grant

Role: PI, \$150,000 direct costs, 12/01/02-11/30/05

PhRMA Foundation Research Starter Grant

Role: PI, \$50,000 direct costs, 01/01/02-12/31/02

Emory University Research Committee grant

Role: PI, \$30,000 direct costs, 02/01/02-01/31/03

Funding obtained by trainees

American Heart Association Summer Undergraduate Fellowship; (PI: Natalia Cardona)

Role: Sponsor, 06/01/12-08/31/12

NIH F31 NS049757, *Factors regulating Ca<sub>v</sub>2.1 modulation by Ca<sup>2+</sup> in neurons*; (PI: Lisa Kreiner)

Role: Sponsor, 01/01/04-6/01/08

Deafness Research Foundation Grant, *Harmonin interactions with voltage-gated Ca<sup>2+</sup> channels in a mouse model of Usher syndrome* (PI: Irina Calin-Jageman)

Role: Sponsor, \$25,000 direct costs, 9/1/06-8/30/07

NIH R03 DC008417, *Functional significance of harmonin in cochlear hair cells*; (PI: Irina Calin-Jageman)

Role: Collaborator, \$150,000 direct costs, 12/1/06-11/30/08

Hearing Heath Foundation Research Grant: *Investigating the role of CaBP1 in KCNQ4 channel modulation*; (PI: Keith Bryan),

Role: Sponsor, \$50,000 direct costs, 07/01/11-06/30/13

NIH F32 DC011714, *Investigating the role of CaBP1 in KCNQ4 channel modulation* (PI: Keith Bryan),

Role: Sponsor, 01/01/12-12/31/13

NIH F31 EY026477, *Characterization of a human Ca<sub>v</sub>1.4 splice variant* (PI: Brittany Williams)

Role: Sponsor, 06/17/16-06/16/19

Conference support

Amy Lee, Ph.D.

NIH R13 NS092173 *FASEB SRC on Ion Channel Regulation*

Role: PI, \$20,000, 6/01/15-5/31/16

Army Research Office Conference Grant W911NF-15-1-0238 for *FASEB SRC on Ion Channel Regulation*

Role: PI, \$10,000 5/14/2015

### **Patents/Licenses**

2009 Rabbit polyclonal Cav1.3 antibody antigen (1.3NT/pGEX4T1), licensed to Millipore

### **Invited Lectures**

#### Seminar invitations:

2002 University of Tennessee Health Sciences Center, Neuroscience Institute  
2003 Medical College of Georgia, Neuroscience  
2004 Tel Aviv University Dept. of Physiology and Pharmacology  
2006 University of Washington, Dept. of Ophthalmology  
2006 Vanderbilt University, Dept. of Physiology  
2006 University of Virginia, Dept. of Pharmacology/Neuroscience Graduate Program  
2007 Cold Spring Harbor Laboratory  
2007 University of Montreal Department of Pharmacology  
2007 University of Iowa Neuroscience  
2007 Rutgers University Women in Neuroscience  
2007 Baylor College of Medicine Dept of Physiology  
2007 Tel Aviv University Dept. of Physiology and Pharmacology  
2008 Boston University Dept. of Pharmacology & Experimental Therapeutics  
2008 University of Toronto Dept. of Pharmacology and Toxicology  
2008 Duke University Dept. of Pharmacology & Cancer Biology  
2008 University of Iowa Dept. of Molecular Physiology and Biophysics  
2008 Columbia University Dept of Physiology and Cellular Biophysics  
2008 University of Massachusetts Medical School Neuroscience program  
2008 Cold Spring Harbor Laboratory  
2008 University of Virginia Dept of Neuroscience  
2009 Cold Spring Harbor Laboratory  
2009 Texas A & M University Neuroscience  
2009 University of Colorado Neuroscience  
2009 Colorado State University Physiology  
2009 Case Western Reserve University Neuroscience  
2010 University of Innsbruck Dept of Pharmacology  
2010 Technische Universität Munich Pharmacology  
2010 University of Tuebingen, Hearing Research  
2010 Hebrew University, Dept. of Biochemistry  
2010 University of Rochester, Dept of Pharmacology/Physiology  
2011 International Institute of Molecular and Cell Biology, Warsaw  
2011 Institut de Pharmacologie Moleculaire et Cellulaire, CNRS, Valbonne  
2011 Kresge Hearing Research Institute, University of Michigan  
2011 Morehouse College, Dept. of Biology  
2011 Northwestern University Institute for Neuroscience

Amy Lee, Ph.D.

2012 Weill Cornell Medical College, Dept. of Pediatric Neurology  
2012 Tel Aviv University Dept. of Physiology  
2013 Korea Institute of Science and Technology, Seoul  
2013 Korea Advanced Institute of Science and Technology, Daejeon  
2013 Cold Spring Harbor Laboratory  
2013 Johns Hopkins University Hearing and Balance center  
2014 Northwestern University Dept. of Pharmacology  
2014 University of Connecticut, Dept. of Physiology and Neurobiology  
2014 Vanderbilt University, Dept. of Pharmacology  
2014 Texas A & M University Dept. of Medical Physiology  
2014 Cold Spring Harbor Laboratory  
2015 University of Maryland Program in Neuroscience  
2015 Max Planck Florida Institute for Neuroscience  
2015 Duke University Ion Channels Unit  
2015 Creighton University, Dept. of Biomedical Sciences  
2015 University of Florida, Dept. of Pharmacology  
2015 University of California, Davis, Dept. of Pharmacology  
2016 Washington University, Dept. of Anesthesiology  
2016 University of Montreal, Groupe d'étude des protéines membranaires  
2016 Weill Cornell Medical Center, Dept. of Physiology and Biophysics  
2016 Brown University, Dept. of Neuroscience  
2017 Hadassah Hebrew University Hospital, Dept. of Genetics and Metabolic Diseases, Jerusalem  
2017 University of Texas-Austin, Dept. of Neuroscience  
2017 University of Innsbruck, Dept. of Pharmacology (declined)  
2017 University of Pennsylvania, Dept. of Physiology  
2018 New York University, Neuroscience Institute  
2018 University of Texas-Austin, Dept. of Neuroscience  
2018 University of Vermont, Dept. of Pharmacology  
2019 University College London, Dept. of Pharmacology  
2019 Dartmouth Geisel School of Medicine, Dept. of Molecular and Systems Biology  
2019 Johns Hopkins University School of Medicine, Dept. of Pharmacology and Molecular Sciences  
2019 New York University, Dept. of Ophthalmology  
2021 University of California, San Francisco, Dept. of Ophthalmology Grand Rounds

Invited talks at National or International Conferences:

1999 Society for Neuroscience Meeting, San Diego, CA, Ca<sup>2+</sup> channel platform session  
2000 Biophysical Society Meeting, New Orleans, LA, Ca<sup>2+</sup> channel platform session  
2002 Society for Neuroscience Meeting, Washington, D.C., Ca<sup>2+</sup> channel platform session  
2003 Southeastern Region Meeting of the American Chemical Society  
2004 Society for Neuroscience Meeting, Orlando, FL: Ca<sup>2+</sup> channel platform session  
2005 Atlanta Ca<sup>2+</sup> Signaling Symposium  
2006 FASEB Ca<sup>2+</sup> signaling conference, Snowmass, CO  
2006 Society for Neuroscience Meeting, Atlanta, GA: Minisymposium "Ca<sup>2+</sup> channel signaling complexes", speaker and chair  
2007 International Calcium Channel Conference, Moorea, French Polynesia  
2007 FASEB Ion Channel Regulation conference, Snowmass, CO

Amy Lee, Ph.D.

- 2008 Gordon Research Conference on Ion Channels
- 2008 Biophysical Society International Meeting on Calmodulin Modulation of Ion Channels, Asilomar, CA
- 2009 FASEB Ion Channel Regulation conference, Snowmass, CO (declined)
- 2009 26<sup>th</sup> International Congress of Physiological Sciences, Kyoto, Japan, invited speaker (Voltage-gated Ca<sup>2+</sup> channels and cellular excitability: regulation and pathophysiology symposium)
- 2010 Ca<sup>2+</sup> and sensory processing, University of Goettingen, Germany
- 2010 Second International Calcium Channel Conference, Belize (declined)
- 2011 Gordon Research Conference, Ca<sup>2+</sup> signaling, Colby College, Maine
- 2011 Molecular Biology of Hearing and Deafness Wellcome Trust Scientific Conference, Hinxton, Cambridge, UK
- 2012 FASEB Ca<sup>2+</sup> signaling conference, Snowmass, CO
- 2013 Biophysical Society Annual Meeting, Philadelphia, PA, Ca<sup>2+</sup> channel platform session
- 2013 Third International Calcium Channel Conference, Krabi, Thailand
- 2013 FASEB Ion Channel regulation conference, Nassau, Bahamas
- 2013 Ribbon Synapse Symposium, Goettingen, Germany
- 2014 Biophysical Society Annual Meeting, San Francisco, CA, Symposium Chair (Molecular regulation of Ca<sup>2+</sup> channels)
- 2014 Gordon Research Conference, Ion Channels, Mount Holyoke College (declined)
- 2014 Society for Neuroscience Annual Meeting, Washington D.C., Symposium Chair (More than a pore: ion channel signaling complexes)
- 2014 NIH/NINDS symposium: "Giant synapses: mechanistic insights into synaptic function"
- 2015 Association for Research in Otolaryngology Annual Meeting, Baltimore, MD (Cellular Ca<sup>2+</sup> signaling in the auditory system)
- 2015 FASEB Ion Channel Regulation conference, Big Sky, MT, co-chair
- 2015 Calcium Signaling Gordon Research Conference, Newry, Maine (declined)
- 2015 FASEB conference on the Biology and Chemistry of Vision (declined)
- 2015 Second European Calcium Channel Conference, Alpbach, Austria
- 2015 Society of General Physiologists Annual Symposium, "Macromolecular local signaling complexes," Woods Hole, MA
- 2016 FASEB Conference on Calcium and Cell Function, Lisbon, Portugal
- 2016 FASEB Conference on Retinal Neurobiology, Big Sky, MT
- 2016 Society of General Physiologists Annual Symposium, Wood's Hole, MA
- 2017 Exocytosis and endocytosis subgroup symposium, Biophysical Society Annual Meeting, New Orleans, LA
- 2017 Gordon Research Conference on Calcium Signaling, Il Ciocco, Italy (declined)
- 2017 FASEB Biology and Chemistry of Vision conference, Steamboat Springs, CO
- 2017 FASEB Ion Channel Regulation conference, Steamboat Springs, CO
- 2017 Giant synapse meeting, Georgetown University, Washington D.C. (declined)
- 2018 FASEB Conference on Calcium and Cell Function, Lake Tahoe, UT
- 2018 European Calcium Channel Conference, Alpbach, Austria (declined)
- 2019 International Calcium Channel Conference, Penang, Malaysia (declined)
- 2019 FASEB Conference on Biology and Chemistry of Vision
- 2019 Ribbon Synapse Symposium, Goettingen, Germany
- 2019 George Kambara Vision Sciences Symposium, University of Wisconsin
- 2019 Calcium Signaling Conference, Fez, Morocco (declined)
- 2019 Ion Channel Modulation Symposium, Amgen, Boston, MA
- 2019 Austin Ion Channels Conference (declined)



Amy Lee, Ph.D.

- 2021 International Neuroscience Winter Conference, Sölden Austria
- 2021 FASEB Conference, Illuminating the understudied druggable proteome
- 2022 FASEB Conference on Retinal Neurobiology

Organization of National or International Conferences:

- 2004 Minisymposium, Society for Neuroscience Annual Meeting, Atlanta, GA
- 2007 Symposium on Membrane Signal Transduction, Ca<sup>2+</sup> channel structure/function, co-chair, University of Washington
- 2014 Symposium, Society for Neuroscience Annual Meeting, San Diego, CA
- 2015 FASEB Ion Channel Regulation conference, Big Sky, MT, co-chair
- 2019 Exocytosis/Endocytosis Subgroup Symposium, Biophysical Society Annual Meeting, Baltimore, MD