

**EMORY UNIVERSITY SCHOOL OF MEDICINE
STANDARD CURRICULUM VITAE**

Revised: August 6, 2021

1. **Name:** Todd M. Preuss:
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Atlanta, GA 30329
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3. **E-mail Address:** tpreuss@emory.edu
4. **Citizenship:** United States citizen
5. **Current Titles and Affiliations:**
 - a. Academic Appointments:
 - i. Primary Appointments:
Professor with Tenure, Department of Pathology & Laboratory Medicine, Emory University
School of Medicine (March 28, 2019 — present).
 - ii. Joint and Secondary Appointments:
Associate Research Professor, Division of Neuropharmacology and Neurologic Diseases;
Yerkes National Primate Research Center, Emory University (Sept. 1, 2002 — present).
 - b. Other Administrative Appointments:
Faculty Affiliate, Department of Anthropology, Emory University (Sept. 1, 2003 — present)
Faculty Affiliate, undergraduate program in Neuroscience and Behavioral Biology (NBB),
Emory University (2003 — present).
Faculty Affiliate, Department of Psychology, Emory University (2011—present).
6. **Previous Academic and Professional Appointments:**

Research Assistant Professor, Department of Psychology, Vanderbilt University, Nashville, TN
(January 1, 1995 — December 31, 1995).

Assistant Professor of Cognitive Science, Institute of Cognitive Science, University of Louisiana at
Lafayette, Lafayette, LA (January 1, 1996 — August 13, 2002).

Adjoint Assistant Professor, Department of Psychology, Vanderbilt University, Nashville, TN
(January 1, 1996 — December 31, 1998).

Assistant Professor, Department of Pathology & Laboratory Medicine, Emory University School of
Medicine (Sept. 1, 2002 — August 31, 2008)

Associate Professor, Department of Pathology & Laboratory Medicine, Emory University School of
Medicine (Sept. 1, 2008 — March 27, 2019).

Visiting Associate Professor, Department of Anthropology, Emory University (January 1, 2019 — [May 2020](#)).

7. Education:

BA, *magna cum laude*, Psychology (High Honors), Haverford College, 1975—1980.

M.Phil., Biological Anthropology, Yale University. 1980—1982.

Ph.D., Biological Anthropology, Yale University, 1982—1990.

Supervisors: Prof. Patricia S. Goldman-Rakic (deceased) and Prof. Dame Alison F. Richard.

8. Postgraduate Training:

Postdoctoral fellow, Vanderbilt University, Biological Psychology. 1990—1995.

Supervisor: Prof. Jon H. Kaas

9. Committee Memberships:

a. Institutional:

Co-founder and member of executive committee of the graduate-level Institute of Cognitive Science, University of Louisiana at Lafayette (formerly University of Southwestern Louisiana), 1998—2002.

Acting Director of Graduate Studies, Institute for Cognitive Science, University of Louisiana at Lafayette (formerly University of Southwestern Louisiana), 1998—2002.

Member, curriculum committee, University of Louisiana at Lafayette (formerly University of Southwestern Louisiana), 1998—2002.

Member, IT Architecture Committee, Yerkes National Primate Research Center, Emory University, 2003—2004.

Member, oversight committee, Chimpanzee Cognition and Functional Imaging Core, Yerkes National Primate Research Center, Emory University, 2005—2009.

Member, Graduate Neuroscience Program Admissions Committee, Emory University, 2009—12.

Member, Advisory committee, Center for Mind, Brain, and Culture, Emory University, 2016—present.

10. Peer Review Activities:

a. Grants:

i. National and International:

National Institutes of Health, 2000. Visual Science special emphasis panel. Rockville, MD, July 14, 2000.

National Science Foundation, 2003. Cognitive Neuroscience section. Washington, DC, June 9-10, 2003.

National Institute of Mental Health, *ad hoc* reviewer, 2009.

National Science Foundation (*ad hoc* reviewer for Anthropology, Biological Sciences, Cognitive Neuroscience, Integrative Organismal Biology). 2002—2013.

b. Manuscripts:

Brain, Behavior and Evolution, 1999 — present

Cerebral Cortex, 1994—present

Proceedings of the National Academy of Sciences USA, 2002—present

Journal of Neuroscience, 2012, 2014.

Biological Psychiatry, 2013

Brain Structure and Function, 2013

Frontiers of Human Neuroscience, 2014

Neuropsychologia, 2013

Neuropsychology, 2013

Trends in Cognitive Science, 2013

American Journal of Physical Anthropology, 2014

11. Editorships and Editorial Boards:

Editorial Board, *Brain, Behavior and Evolution*, 2006 — present.

Editorial Board, Editor-in-Chief for [Human Brain Specializations section](#), Museum of Comparative Anthropogeny ([MOCA](#)): 2007 — present.

12. Honors and Awards:

Elected Phi Beta Kappa, Haverford College, 1980

National Science Foundation Graduate Fellowship, 1980—1983

Yale University Graduate Fellowship, 1980—1984

National Institutes of Health Graduate Fellowship, 1984—1986

Elected Sigma Xi, Yale University, 1986

McDonnell-Pew Program in Cognitive Neuroscience Fellowship, 1990—1994

National Eye Institute Postdoctoral Fellowship, 1991—1993

Fellow, Kavli Frontiers of Science Program, National Academy of Sciences, 2005—2007.

Distinguished Fellow, Sage Center for the Study of the Mind, University of California, Santa Barbara, October 14-22, 2013.

13. Society Memberships:

Society for Neuroscience, 1983—present

American Association of Physical Anthropologists, 1983—present

American Association for the Advancement of Science, 1996—2015; 2018
J. B. Johnston Club, 1998—present

14. Organization of Conferences:

a. National and International:

i. Administrative Positions:

Co-organizer, Conference on Human Cognitive Specializations, University of Louisiana at Lafayette, New Iberia Research Center, New Iberia, LA, October 15-18, 1998.

Organizer, Symposium on Human Neural and Cognitive Specializations, Annual Meeting of the McDonnell-Pew Program in Cognitive Neuroscience, La Jolla, CA, June 18, 1999.

Organizer, Session on the “Evolutionary Origins of Human Cognition and Behavior,” Kavli Frontiers of Science Symposium, National Academy of Sciences, Irvine, CA, November 2-4, 2006.

Co-organizer, “The New Comparative Biology of Human Nature,” Arthur M. Sackler Symposium of the National Academy of Sciences, Irvine, CA, November 16-18, 2006.

Organizer, Session on “Brain/Machine Interface,” Kavli Frontiers of Science Symposium, National Academy of Sciences, Irvine, CA, November 8-10, 2007.

Organizer, Session on “Origin of Modern Humans,” Kavli Frontiers of Science Symposium, National Academy of Sciences, Irvine, CA, November 8-10, 2007.

Organizer, Symposium on Human Brain Specializations, Center for Academic Research and Training in Anthropogeny (CARTA), La Jolla, CA, October 2011.

Co-organizer. Symposium, "From Tools and Gestures to the Language-Ready Brain," Emory University, Atlanta, GA, April 10-12, 2016.

Co-organizer, Karger Workshop on Model Animals, Annual Meeting of the J.B. Johnston Club, San Diego, CA, Nov. 1, 2018.

ii. Sessions as Chair:

Chair, Karger Symposium on *The Diversity of Mammalian Cerebral Cortex*, Annual Meeting of the J.B. Johnston Club, Miami Beach, FL, October 22, 1999.

Chair, Mini-symposium on Human Brain Specializations, La Jolla Group for Explaining Human Origins, University of California at San Diego, La Jolla, CA, November 15-16 2002.

Chair, Symposium on Human Brain Specializations, Center for Academic Research and Training in Anthropogeny (CARTA), La Jolla, CA, October 2011.

Chair of Evolution section, Summer Cognitive Neuroscience Institute, Squaw Valley, CA, June 24-25, 2013.

Chair, Symposium on *Innovative approaches to human brain evolution: molecules to systems*, Annual meeting of the American Association of Physical Anthropologists,

Atlanta, GA, April 15, 2016.

- b. Institutional
 - i. Administrative Positions:

Co-organizer, Summer Workshop: "What's Human About the Human Brain?" Center for Mind, Brain, and Culture, Emory University, May 25-27, 2011.

15. Community Outreach:

- a. General:

Participant in Careers in Neuroscience discussion panel, sponsored by the Center for Behavioral Neuroscience for Atlanta-area high school students, Fernbank Museum, January 31, 2004

Annual loans to local schools of brains for demonstration purposes; 2004—present.

Assisted junior high student to develop a science project on primate research, 2005

Invited lecture, Atlanta Science Tavern, January 16, 2010.

Invited lecture, "What Monkeys and Apes Can Teach Us About Human Brain Evolution," Bourne Memorial Lecture, ZooAtlanta, Atlanta, GA, April 8, 2010.

Invited lecture, "Humans and Other Animals — a Modern Darwinian Understanding of 'Man's Place in Nature,'" Emory University Center for Mind, Brain, and Culture, November 3, 2011

- b. Media Appearances:

I. Research discussed in "What makes science newsworthy?" by Susan M. Fitzpatrick. *The Scientist*. November 22, 1999.

II. Comments in "Lords of the Jungle . . . But Why?" by Deborah Hill. *ScienceNow*. February 19, 2002.

III. Quoted in comments on the Goodman's group's PNAS paper on reclassifying chimpanzees as *Homo*, *Discovery News*, May 20, 2003.

IV. Quoted in comments on the possible role of the ASPM gene in the evolutionary enlargement of the human brain, *Science*, January 2, 2004.

V. Research featured in "UCLA/Emory article reviews how brain evolved separately from body," *Science Daily*, November 30, 2004.

VI. Quoted in "A series of fortunate events," by Penny Bailey, The Human Genome (Wellcome Trust website), January 10, 2005.

VII. Featured interviewee in "Molecular Insights into Human Brain Evolution," by Jane Bradbury. *PLoS Biology*, March 2005.

VIII. Featured interviewee on BBC Radio 4's Monday Science program, "ChimpanA to

ChimpanZee,” aired on Monday, March 31, 2005.

- IX. Quoted on the significance of the Lahn and the Varki papers on human brain evolution that appeared in the September 9, 2005 issue of *Science*, “The evolving human brain,” by Melissa Phillips, *The Scientist*, September 9, 2005.
- X. Quoted in “Mix and match: the hunt for what makes us human,” by Erika Check. *Nature*, September 7, 2006.
- XI. Quoted in regard to a new hypothesis of primate origins in “Snakes on the brain,” by Lydia Fong, *Seed* magazine, September 7, 2006.
- XII. Quoted in “Mining the molecules that make our mind,” by Elizabeth Pennisi. *Science*, September 29, 2006.
- XIII. Quoted in “DNA trail points to human brain evolution,” by Roxanne Khamisi. *NewScientist.com*, October 13, 2006.
- XIV. Quoted in “The endangered laboratory chimp,” by Jon Cohen. *Science*, January 26, 2007.
- XV. Research profiled in “Brain evolution studies go micro,” by Michael Balter. *Science*, March 2, 2007.
- XVI. Quoted in “NIH to end chimp breeding for research,” by Jon Cohen. *Science*, June 1, 2007.
- XVII. Interviewed in PBS’s Nova series, “Becoming Human,” aired in 2009.
- XVIII. Featured interviewee in PBS series, “The Human Spark,” January 2010.
- XIX. Research profiled in “The inner workings of the chimpanzee brain,” by Jon Cohen, *Science*, April 2, 2010.
- XX. Quoted by the BBC, CBS, the *Wall Street Journal*, and AlzForum in response to Sherwood et al. paper in PNAS on differences in brain aging between humans and chimpanzees, July 29, 2011.
- XXI. Quoted in AlzForum in response to Somel et al. paper in *Nature* on microRNA-regulated changes in human gene expression in the brain, December 16, 2011.
- XXII. Research profiled in *The Lancet Neurology*, October 2012.
- XXIII. Interviewed by Richard Harris on NPR, April 10, 2017.
- XXIV. Quoted in *New Scientist* article on human brain evolution, Oct. 7, 2017.

16. Formal Teaching:

a. Graduate Programs:

i. Master’s and PhD Programs:

Biology 410, Advanced Problems in Zoology (Evolutionary Biology of Cerebral Cortex). University of Louisiana at Lafayette. Undergraduate and graduate students. (3 hours of lecture per week per semester.) Fall 1996.

Cognitive Science 530, Cognitive Neuroscience. University of Louisiana at Lafayette. Undergraduate and graduate students. (3 hours of lecture per week per semester.) Fall 2000, Spring 2001, 2002.

Cognitive Science 539, Evolution of Cerebral Cortex. University of Louisiana at Lafayette. Undergraduate and graduate students. (3 hours of lecture per week per semester.) Fall 2000.

Cognitive Science 590, Special Project in Cognitive Neuroscience (Comparative Visual Neuroscience & Psychophysics of Humans, Apes, and Monkeys). University of Louisiana at Lafayette. Undergraduate and graduate students, (3 hours of lecture per week per semester.) Summer 2000.

Cognitive Science 590, Special Project in Cognitive Neuroscience (Synaptic Organization of the Brain). University of Louisiana at Lafayette. Undergraduate and graduate students (3 hours of lecture per week per semester.) Fall 2001.

IBS 526 (formerly IBS 503, 533), Neuroanatomy and Systems Neuroscience. Core course in graduate Neuroscience program. Emory University, Responsible for 2-3 lectures and instruction in 2-3 laboratory sessions (5.6-8.5 total hours per year), Fall 2003 — Fall 2021.

IBS 703R, Neurobiology of Social Cognition in Primates (graduate seminar co-taught with Dr. Lisa Parr). (1.5 hours per week per semester), Spring 2005.

IBS 576, Cerebral Cortex, Structures and Systems. Emory University, 3 credit lecture course for graduate students and advanced undergraduates (3 hours of lecture per week per semester), Spring 2008, Spring 2011, Spring 2013, Spring 2015.

IBS 500r/ANT 585, Current Topics in Bioscience: Primate Brain Organization and Evolution. Emory University, 3 credit hour lecture course for graduate students and advanced undergraduates, Spring 2021, Fall 2021.

[IBS 500r](#), Current Topics in Bioscience: Human Cortical Organization and Evolution. Emory University, 3 credit hour lecture course for graduate students and advanced undergraduates, Spring 2022 (forthcoming).

ii. Undergraduate:

ANT 385/NBB 370, Special Topics: Evolution of Primate Brains. Emory University, 3 credit hour lecture course for undergraduates (2 hours, 30 minutes of lecture per week), Spring 2019, Fall 2019.

ANT 385/NBB 370, Special Topics: Human Brain Evolution. Emory University, 3 credit hour lecture course for undergraduates (2 hours, 30 minutes of lecture per week), Spring 2020, Spring 2021.

See (i.) above for classes with undergraduates and graduate students.

24. Supervisory Teaching:

a. PhD Students Directly Supervised:

- i. Nicole Taylor, PhD trainee in Anthropology, Emory University, 2010—2014 (deceased).
- ii. Katherine L. Bryant, PhD. PhD trainee, graduate program in Neuroscience, 2010 — 2015. Marie Curie Fellow, Donders Institute for Brain, Cognition, & Behaviour, Radboud University Nijmegen, The Netherlands.

b. Postdoctoral Fellows Directly Supervised:

- i. John C. Redmond, Jr., PhD, Postdoctoral trainee, 2000 — 2005. Assistant Professor, Department of Cultural and Behavioral Sciences, Georgia State University Perimeter College, Dunwoody, GA.
- ii. Mario Cáceres, PhD, Postdoctoral trainee, 2003 —2006. CREA Research Professor, Institute of Biotechnology and Biomedicine, and Associate Professor in the Department of Genetics and Microbiology, Universitat Autònoma de Barcelona, Spain.
- iii. Katherine L. Bryant, PhD. Postdoctoral trainee, 2016. Marie Curie Fellow, Donders Institute for Brain, Cognition, & Behaviour, Radboud University Nijmegen, The Netherlands.

c. Thesis Committees:

- i. Matthew F. Glasser (Anthropology; BA 2006), undergraduate honors thesis committee, Emory University, 2006.
- ii. Amy Mahan (Neuroscience; PhD 2011), qualifying exam committee, Emory University, 2008—2011.
- iii. Jennifer Mascaro (Anthropology; PhD 2011), qualifying exam committee, Emory University, 2008—2011.
- iv. Gaurav Arora (Biology; Georgia Tech; PhD, 2011), qualifying exam committee, Georgia Institute of Technology, 2007—2008.
- v. Erin Hecht (Neuroscience, PhD, May 2013), qualifying exam committee, advisory committee, Emory University, 2008—2013.
- vi. Rebecca Rosen (Neuroscience; PhD July 2010), qualifying exam committee, advisory committee, Emory University, 2010.
- vii. Sarah Barks (Anthropology; PhD May 2010), qualifying exam committee, advisory committee, Emory University, 2010.
- viii. Bhargav Kumar Errangi (Biomedical Engineering; Emory University/Georgia Tech, PhD 2011), qualifying exam committee, advisory committee, Emory University.
- ix. Brittany Howell (Neuroscience; PhD August 2013), qualifying exam committee, advisory committee; Emory University, 2013.

- x. Jodi Godfrey (Neuroscience; PhD 2016), advisory committee, Emory University, 2013-2016.
- xi. Christina Rogers Flattery (Anthropology; PhD 2019), qualifying exam committee, advisory committee, Emory University, 2014-2019.
- xii. Daniel Coppeto (Anthropology; PhD 2020), qualifying exam committee, advisory committee, Emory University, 2012-2020.
- xiii. Ashley Parks (Anthropology; PhD candidate), qualifying exam committee, Stony Brook University, 2017—present.

d. Other:

- i. Jayendrakumar S. Patel (undergraduate program in Neuroscience and Behavioral Biology; NBB) – sponsored under CBN's BRAIN program, undergraduate research, Summer 2004.
- ii. Jason Bae (NBB) - undergraduate research, Fall 2012, Spring 2013.
- iii. Nadine Jacques (NBB) - undergraduate research, Fall 2012, Spring 2013.
- iv. Nicholas Singletary (NBB) - undergraduate research, Fall 2013, Spring 2014.
- v. Olivia Zarella (Anthropology) - undergraduate research, Fall 2015, Spring 2016.
- vi. Martha Jayah Girish (Anthropology) - undergraduate research, Fall 2015, Spring 2016.
- vii. Shweta Sahu (NBB) - undergraduate research, Fall 2015, Spring 2016, Fall 2016, Spring 2017.
- viii. Vikrant Nallaparaju (Anthropology/Human Biology) - undergraduate research, Fall 2015, Spring 2016, Fall 2016, Spring 2017.
- ix. Ethan Siegel (NBB) - undergraduate research, Fall 2015, Spring 2016, Fall 2016, Spring 2017.
- x. Nicole Schindler (NBB) - undergraduate research, Fall 2017.
- xi. Timothy Lee (NBB) - undergraduate research, Fall 2016, Spring 2017, Fall 2017, Spring 2018.
- xii. Nadine Jacques (NBB; BA 2014), directed undergraduate honors thesis, Emory University, 2014.
- xiii. Nicholas Singletary (NBB; BA 2016), directed undergraduate honors thesis, Emory University, 2016.
- xiv. Erin E. Hecht, PhD, Research Scientist, Georgia State University, 2016—2018. Currently Assistant Professor of Human Evolutionary Biology, Harvard University.

25. Lectureships, Seminar Invitations, and Visiting Professorships:

- a. National and International:
 1. Invited lecture, Symposium on The Supraordinal Relationships of Primates, American Association of Physical Anthropologists Annual Meeting, Milwaukee, 1991.
 2. Invited lecture, Club Préfrontal, Paris, 1992.
 3. Invited lecture, McDonnell-Pew Program in Cognitive Neuroscience Winter Meeting, Miami, 1993.
 4. Invited lecture, McDonnell Summer Institute for Cognitive Neuroscience, Squaw Valley, CA, 1994.
 5. Invited lecture, Big Brains Conference, Cornell University, 1995.
 6. Invited lecture, Workshop on Evolution, Neurobiology, and Behavior, Krasnow Institute of Advanced Study, George Mason University, 1995.
 7. Invited lecture at the symposium "From Synapses and Dopamine to Higher Brain Functions and Schizophrenia," Association pour la Neuro-Psycho-Pharmacologie, Paris, 1997.
 8. Invited lecture at the symposium, "Current Findings on Primate and Human Brain Evolution: A Symposium in Honor of Harry J. Jerison," American Association of Physical Anthropologists Annual Meeting, Salt Lake City, 1998.
 9. Invited lecture, McDonnell Summer Institute for Cognitive Neuroscience, Squaw Valley, CA, 1998.
 10. Invited lecture, Symposium on Human Neural and Cognitive Specializations, Annual Meeting of the McDonnell-Pew Program in Cognitive Neuroscience, La Jolla, CA, 1999.
 11. Invited lecture, Karger Symposium on the Diversity of Mammalian Cerebral Cortex, Annual Meeting of the J.B. Johnston Club, Miami Beach, FL, 1999.
 12. Invited lecture, "How evolution gave visual cortex a human look," Wolfgang Köhler Lecture Series, Dept. of Psychology, Dartmouth University, 22 September 2000.
 13. Invited lecture, festschrift for Prof. Jon Kaas on the occasion of his election to the National Academy of Sciences, Dept. of Psychology, Vanderbilt University, 30 September 2000.
 14. Invited lecture, "Exploring the human mind and brain through comparative studies of monkeys, apes, and humans," presented at the La Jolla Group for Explaining Human Origins, University of California at San Diego, La Jolla, CA, 19 November 2000.
 15. Invited lecture, "Evolutionary specializations of primate brain organization," to be presented at the symposium, "Primate Origins," Northwestern University School of Medicine, Chicago, IL, 13-15 December 2001.
 16. Invited lecture, Minisymposium on Human Brain Specializations, La Jolla Group for Explaining Human Origins, University of California at San Diego, La Jolla, CA, 3 August 2002.
 17. Invited lecture, McDonnell Summer Institute for Cognitive Neuroscience, Squaw Valley, CA, 2003.
 18. Invited Lecture, "Stalking the Wild Human with Gene Chips and Antibodies," Department of Biology, University of Albany, May 16, 2003.
 19. Invited lecture, Department of Biology, Georgia State University, Atlanta, GA, April 8, 2005.

20. Invited lecture, Department of Neurobiology, Stony Brook University, Stony Brook, NY, April 28, 2005.
21. Invited lecture, Symposium on Primate Genomics, American Society of Primatologists, Portland, OR, August 19, 2005.
22. Invited speaker, The New Comparative Biology of Human Nature, National Academy of Sciences Arthur M. Sackler Symposium series, Irvine, CA, Nov. 16—18, 2006.
23. Invited lecture, Symposium on Nonhuman Primate Models of Aging, American Aging Association annual meeting, Boulder, CO, May 30-June 3, 2008.
24. Invited lecture, Symposium on the Evolution of the Human Brain and Human Cognition. International Neuropsychology Symposium, Tenerife, Canary Islands, Spain, June 27-28, 2008.
25. Invited lecture, Symposium on the "Biological Foundations and Origin of Syntax." Ernst Struengmann Forum, Frankfurt Institute for Advanced Studies, Frankfurt, Germany, July 13-18, 2008 (unable to attend for health reasons).
26. Invited lecture, Summer Institute in Cognitive Neuroscience, University of California at Santa Barbara, June 25, 2009.
27. Invited lecture, Wally Welker Memorial Symposium, Washington, DC, June 25-27, 2010.
28. Invited lecture, Symposium "Homo sapiens and Pan troglodytes: What makes us different?" International Primatological Society, Kyoto, Japan, September 12-18, 2010. (unable to attend for health reasons).
29. Invited lecture, International conference on "Emotions: from neurochemistry and brain evolution to human behaviour." Jean-Marie Delwart Foundation, Brussels, Belgium, October 15-17, 2010.
30. Invited lecture, Symposium on Human Brain Specializations, Center for Academic Research and Training in Anthropogeny (CARTA), La Jolla, CA, October 2011.
31. Invited lecture, Arthur M. Sackler Colloquium, "In the Light of Evolution VI: Brain and Behavior," Irvine, CA, January 20, 2012.
32. Invited lecture, Summer Cognitive Neuroscience Institute, Squaw Valley, CA, June 24-25, 2013.
33. Invited lecture, Meeting on *Behavior and Neurogenetics of Nonhuman Primates*, Cold Spring Harbor Laboratory, New York, September 6—9, 2013.
34. Invited lecture, Conference on "Neural Circuits for Adaptive Control of Behavior," Paris, France, September 24-26, 2013. (unable to attend for health reasons).
35. Invited lecture, Symposium on *What Makes Us Human?*, The Institute for Society and Genetics, UCLA, November 15, 2013.
36. Invited lecture, "Humans and Other Animals: A Modern Darwinian Understanding of 'Man's Place in Nature'", Sage Center for the Study of the Mind, University of California, Santa Barbara. October 14, 2013.
37. Invited lecture, "Human brain specializations", Evolutionary Psychology group, University of California, Santa Barbara. October 16, 2013.
38. Invited lecture, NSF conference on *Phylogenetic Principles of Brain Structure and Function*. Janelia Farms, VA, October 23-25, 2013.
39. Grand Rounds presentation, "Evolutionary Specializations of the Human Brain," Department of Neurology, UCLA School of Medicine, November 13, 2013.

40. Invited Lecture, National Institute of Mental Health, "What Animal Models Do To Us," Bethesda, MD, May 16, 2016.
41. Invited lecture, "Brains," in the CARTA Symposium on [Exploring the Ape-Human Paradox](#), Center for Academic Research and Training in Anthropogeny (CARTA), La Jolla, CA, October 24, 2020.

b. Regional:

1. Invited keynote speaker, Lexington Conference on Translation Neuroscience: Models of Aging, Lexington, KY, October 8-10, 2008 (unable to attend for health reasons).
2. Invited Lecture, "Animal Models and Human Reality," University of North Carolina at Greensboro, March 19, 2010.
3. Invited lecture, Darwin Day celebration, Department of Biology, University of North Georgia, Feb. 10, 2017.

c. Institutional:

1. Invited Lecture, "Humans and Other Animals — a Modern Darwinian Understanding of 'Man's Place in Nature,'" Emory University Center for Mind, Brain, and Culture, November 3, 2011.
2. Grand Rounds presentation, "The Modern Discovery of the Human Brain," Department of Neurosurgery, Emory University School of Medicine, Oct. 25, 2012.
3. Grand Rounds presentation, "Evolutionary Specializations of Human Cerebral Cortex," Department of Neurology, Emory University School of Medicine, June 27, 2014.
4. Invited presentation, "Recent advances in understanding human brain evolution," Pathobiology presentation series, Department of Pathology, Emory University School of Medicine, February 15, 2018.
5. Invited lecture, conference on "From Tools and Gestures to the Language-Ready Brain," Emory University, April 10—11, 2016.

26. Invitations to National/International, Regional, and Institutional Conferences:

a. National and International:

1. Participant and Speaker, Symposium: "Must We Choose Between Rationality and Irrationality?" Chicago-Kent College of Law, Chicago, IL, November 6, 2004.
2. Invitee, James S. McDonnell Foundation Collaborative Activities Program meeting, Oxford, UK, June 23-26, 2008.

b. Institutional:

1. Invited speaker, symposium on "The Evolution Revolution: Science Changing Life," Emory University, Atlanta, GA, October 22-23, 2008.

2. Invited speaker and discussant, Conference on the Evolution of Mind, Brain, and Culture, Emory University Center for Mind, Brain, and Culture, Atlanta, GA, November 12-13, 2009.
3. Invited speaker and discussant, Summer Workshop: "What's Human About the Human Brain?" Center for Mind, Brain, and Culture, Emory University, May 25-27, 2011.

27. Abstract Presentations at National/International, Regional, and Institutional Conferences:

a. National and International:

Last 5 years - out of a total of 87 (see Published Abstracts):

1. *Singletary, N., Dooyema, J., Gutman, D. A. & **Preuss, T. M.** (2015). Molecular compartmentation of cerebral white matter revealed with Perls iron stain. *Society for Neuroscience Abstracts* (poster)
2. **Preuss, T. M.**, *Hecht, E. E., Jacquez, N. J., Bryant, K. L., Fields, A. L., Iii, Li, L. & Gutman, D. A. (2015). Comparative connectivity of the amygdala in chimpanzees and humans. *Society for Neuroscience Abstracts* (poster)
3. *Bruner E, **Preuss, TM**, Chen X, Rilling JK (2016) Evidence for precuneus expansion in recent human evolution. *American Journal of Physical Anthropology* (abstract) (oral)
4. *Bryant KL, Li L, **Preuss TM** (2016) Reorganization of temporal association cortico-cortical connectivity in hominoids. *American Journal of Physical Anthropology* (abstract) (poster)
5. ***Preuss TM** (2016) Comparative approaches to human brain evolution: New methods, resources, and discoveries. *American Journal of Physical Anthropology* (abstract) (poster)
6. *Rilling JK, Glasser MF, **Preuss TM** (2016) Evolution of language circuits revealed with comparative diffusion tensor imaging. *American Journal of Physical Anthropology* (abstract) (poster).
7. *Rogers, C., Ross, A. P., Dooyema, J., Cree, M. A., Sahu, S. P., Siegel, E., Stopa, E. G., Rilling, J. K., Albers, H. E. & **Preuss, T. M.** (2016). Oxytocin (OT) and arginine-vasopressin (AVP) cell bodies and fibers in the social behavior neural network in rhesus macaque, chimpanzee, and human brains. *Society for Neuroscience Abstracts* (poster).
8. *Hecht EE, Gutman DG, Dunn W Jr, Keifer OJ, Kent M, **Preuss TM** (2016) Neuroanatomical variation in domestic dog breeds. *Society for Neuroscience Abstracts* (poster)
9. *Yi S, Mendizabal I, Shi L, Keller T, Konopka G, **Preuss T**, Hsieh T-F, Hu E, Zhang Z, Su B (2016) Comparative methylome analyses of human, chimpanzee, macaque brains. *Society for Neuroscience Abstracts* (poster).
10. *Donahue, CJ, Glasser, MF, Coalson, TS, **Preuss, TM**, Rilling, JK, Van Essen DC (2017) Preferential evolutionary expansion of human prefrontal cortex relative to nonhuman primates. *OHBM Abstracts* (poster).
11. *Rogers, C, Ross, AP, Sahu, SP, Siegel, E, Dooyema, J, Cree, MA, Stopa, EG, Rilling, JK, Albers, HE, **Preuss, TM** (2017) Oxytocin and arginine-vasopressin innervation of cerebral cortex in human and chimpanzee brains. *Society for Neuroscience Abstracts* (poster).

12. *Jeong H, Mendizabal I, Berto S, Usui N, Toriumi K, Chatterjee P, Douglas C, Singh D, Huh I, Layman TS, Tamminga CA, **Preuss TM**, Konopka G, Yi S (2019) Cell-type specific epigenetic trajectory illuminates human brain evolution. The Allied Genetics Conference (TAGS) abstracts (poster).
13. *Wei Y, de Lange SC, Scholtens LH, Watanabe K, Ardesch DJ, Jansen PR, Savage JE, Li L, **Preuss TM**, Rilling JK, Posthuma D, van den Heuvel MP (2019) Genetic mapping of human-expanded cognitive networks. Cognition, Behavior & Evolution Network (CBEN) conference abstracts (poster).
14. *Li C-X, Yan Y, Li L, **Preuss TM**, Hu X, Herndon JG, Zhang X (2019) Diffusion MRI revealed mild optic nerve fiber degeneration during chimpanzee aging. International Society for Magnetic Resonance in Medicine (ISMRM) Abstracts (poster).

28. Research Focus:

My research focuses on evolutionary specializations of the human brain, focusing on the cellular, laminar, and regional organization of cerebral cortex. This involves comparing humans, chimpanzees, and other non-human primates, employing the analytic methods of modern evolutionary biology in combination with genomic, molecular biological, histochemical, and neuroimaging techniques.

30. Grant Support:

a. Active Support:

- i. Federally Funded:
(currently none)
- ii. Other:
(currently none)

b. Previous Support:

- i. Awardee, National Science Foundation, Dissertation Improvement Grant, \$10,000, 1984-1986
- ii. PI, McDonnell-Pew Program in Cognitive Neuroscience, Evolutionary Specializations of Primate Motor Association Cortex, postdoctoral support, \$95,236.00, 1990 – 1994
- iii. PI, Louisiana Board of Regents, A Digital Image-Processing, Morphometrics, and Data-Archiving System for the Laboratory of Comparative Neuroscience at the USL NIRC Life Science Building, Preuss lab direct: \$20,067, 1997.
- iv. PI, Louisiana Board of Regents, Enhancements to the Digital Imaging and Computer Graphics Facilities of the Laboratory of Comparative Neuroscience, Preuss lab direct: \$22,287, 1998
- v. Co-PI, National Science Foundation, *Conference on Human Cognitive Specializations*, Total direct: \$10,475, 1998—1999
- vi. PI, McDonnell-Pew Program in Cognitive Neuroscience, Evolutionary Specializations

- of Human Cerebral Cortex, Preuss lab direct: \$140,709, 1998 – 2001
- vii. PI, James S. McDonnell Foundation, Structural and Functional Specializations of Human Cerebral Cortex, Preuss lab direct: \$150,000, 2000—2002.
 - viii. Lead PI in multi-institution grant, James S. McDonnell Foundation 21st Century Science Initiative (grant 21002093), Interrogating the Genome to Uncover Human Specializations of the Brain and Cognition, Total direct: \$1,886,163; Direct to Preuss lab: \$1,100,00, 2003—2009
 - ix. Co-PI, National Institutes of Health (NIH / NIDCD RO1 DC04318), Functional Organization of Auditory Cortex, Preuss lab direct: \$307,448, 04/01/07—03/31/12.
 - x. PL for Project 3, National Institutes of Health (NIH / NIA 5P01 AG026423), *Evolution of Aging and Dementia in Female Primates*, Total direct: \$11,208,851, Project 3 direct: \$1,699,909, 04/15/07—03/31/12.
 - xi. Co-PI, National Institutes of Health (NIH / NIMH 1R01MH094774), *Neurodevelopmental Profiling of the Epigenome in Human and Rhesus*, Preuss lab direct: \$49,903, 09/15/2011 – 06/30/2016.
 - xii. PI, Mathers Foundation, The Role of Glia in Human Longevity and Brain Plasticity, Preuss lab direct: \$111,601, 09/01/11—12/31/15.
 - xiii. Project leader (PL) of a multi-component, multi-university award, John Templeton Foundation (grant ID: 40463), *The Prosocial Brain: Evolution of the Human Capacity for Empathy, Compassion and Cooperation*, Total direct: \$2,946,471, Preuss lab direct: \$693,280, 07/01/13—06/30/16.
 - xiv. Co-PI, National Science Foundation (NSF 1457291) *Impact of Selection Pressure for Social Behavior on Canid Brain Evolution*, Preuss lab direct: \$84,211, 08/01/2015 — 7/31/2018.
 - xv. PI, University Research Council (Emory URC), *Neural Markers of Training Success and Resilience to Combat Stress in Military Working Dogs*, Preuss lab direct: \$37,139, 4/23/2015 — 5/01/2019.
 - xvi. PI, University Research Council (Emory URC), *Neural Markers of Training Success and Resilience to Combat Stress in Military Working Dogs*, Preuss lab direct: \$37,139, 4/23/2015 — 5/01/2019.
 - xvii. Co-PI, National Science Foundation (NSF 1631563), *Individual Variation, Plasticity, and Learning in Human Evolution*, Preuss lab direct: \$42,579, 07/01/2016—06/30/2019.
 - xviii. PI, National Institutes of Health, *A National Chimpanzee Brain Resource* (NIH/NINDS 1R24NS092988-01), Preuss lab direct: \$169,086, 09/30/2015 – 06/30/2019,
 - xix. Co-PI, National Institutes of Health, *Human Specific Brain DNA Methylation and Neuropsychiatric Diseases* (NIH/NIMH 1R01MH103517-01A1), Preuss lab direct through year 4: \$350,945, 04/01/2015 — 03/31/2020.

31. Bibliography:

- a. Published and Accepted Research Articles (clinical, basic science, other) in Refereed Journals:
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 3. **Preuss, T.M.**, and Goldman-Rakic, P.S. (1989) Connections of the ventral granular frontal cortex of macaques with perisylvian premotor and somatosensory areas: Anatomical evidence for somatic representation in primate frontal association cortex. *Journal of Comparative Neurology*, 282: 293-316.
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 5. **Preuss, T.M.**, and Goldman-Rakic, P.S. (1991b) Architectonics of the parietal and temporal association cortex in the strepsirhine primate *Galago* compared to the anthropoid primate *Macaca*. *Journal of Comparative Neurology*, 310: 475-506.
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b. Manuscripts Submitted:

c. Review Articles:

1. **Preuss, T.M.** (1995) Do rats have prefrontal cortex? The Rose-Woolsey-Akert program reconsidered. *Journal of Cognitive Neuroscience*, 7: 1-24.
2. Povinelli, D.J., and **Preuss, T.M.** (1995) Theory of mind: Evolutionary history of a cognitive specialization. *Trends in Neurosciences*, 18: 418-424.
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91. Barton S, Gutman DA, **Preuss TM**, Kent M, Hecht EE. Neuroanatomical asymmetry in the canine brain. 2021. Society for Neuroscience Abstracts.

i. Other Publications

Web article, "How do human brains differ from those of other primates?" for BrainFacts.org (the public information website of the Society for Neuroscience), 2014.

<http://www.brainfacts.org/ask-an-expert/how-does-the-human-brain-differ-from-that-of-other-primates>

Web video: "Todd Preuss" in *People Behind the Science: Brain Evolution*.

<https://flipgrid.com/6e753475>

32. Contributions Not Otherwise Noted:

Faculty participant in development of the university's Strategic Plan. The Signature Theme I helped to develop, "Neuroscience, Human Nature and Society," and the specific subtheme that I was principally responsible for drafting, "Evolution and Human Uniqueness," were incorporated into the Strategic Plan, Emory University, 2005.

