

CURRICULUM VITAE Derek C. Braun Ph.D.

derekbraun.net

I have read the above following and certify that this curriculum vitae is a current and accurate statement of my professional record.

Signature: 

Date: Dec 16, 2022

1. Personal Information

CURRENT POSITIONS

PROFESSOR OF BIOLOGY	1995-Present • 27 yrs
PROFESSOR	2008-Present • 14 yrs
ASSOCIATE PROFESSOR	2003-2008 • 5 yrs
ASSISTANT PROFESSOR	2000-2003 • 3 yrs
ADJUNCT	1995-2000 • 5 yrs

Biology Program

*School of Science, Technology, Accessibility, Mathematics and Public Health (STAMP)
Gallaudet University, Washington, D.C.*

I currently teach BIO 211 Genetics, BIO 221 Microbiology, and BIO 321 Pathogenic Microbiology, as well as service courses and General Studies courses.

EDITORIAL BOARD2019-Present • 3 yrs

CBE Life Sciences Education (LSE)

American Society for Cell Biology (ASCB), Bethesda, Maryland

As a monitoring editor for LSE, which is one of the two journals published by ASCB, I find reviewers, monitor the review process, and add my own reviews for submitted manuscripts as assigned by the Editor in Chief.

EDUCATION

UNIVERSITY OF MARYLAND	2002
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College Park, Maryland — Doctor of Philosophy

Cell Biology and Molecular Genetics

Advisor: Dr. Daniel C. Stein

My dissertation work was on the genetics of lipooligosaccharide antigenic variation in *Neisseria gonorrhoeae*.

GALLAUDET UNIVERSITY1995

Washington, D.C. — Bachelor of Arts, Magna Cum Laude

Computer Science with a Mathematics Minor

EMPLOYMENT HISTORY

DIRECTOR, BIOLOGY PROGRAM	2015-2018 • 3 yrs
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Department of Science, Technology, & Mathematics

Gallaudet University, Washington, D.C.

I oversaw daily operations including supervising eight program faculty, one laboratory coordinator and several adjuncts, preparing personnel evaluations and reports, hiring and supervising adjuncts, chairing program meetings, meeting with students and recruiting students into the major, and resolving situations among faculty and students.

DIRECTOR, MOLECULAR GENETICS LABORATORY2006-2018 • 12 yrs

Department of Science, Technology, & Mathematics

Gallaudet University, Washington, D.C.

I led the design and construction of the \$1.2 million laboratory in 2009, coming in 20% under budget. This was the first laboratory ever built using DeafSpace architectural principles which emphasizes universal accessibility; the design was successful and it was emulated in later DeafSpace projects. I oversaw the laboratory's daily activities and budget and supervised one technician and one staff scientist. The laboratory supported research projects by four faculty and their interns. Between 2008 and 2018, my lab trained and mentored 53 deaf and hard-of-hearing students mostly via undergraduate research experiences (UREs).

RESEARCH CONTRACTOR AND SPECIAL VOLUNTEER2002-2006 • 4 yrs

*National Cancer Institute, NIH
Molecular Mechanisms of Tumor Promotion (MMTP) Section
Laboratory of Cellular Carcinogenesis and Tumor Promotion (LCCTP)
Center for Cancer Research (CCR)
Bethesda, Maryland*
Mentor: Dr. Peter M. Blumberg

I researched molecular genetics and cancer pharmacology of PKCs, RasGRPs and phorbol esters. Our arrangement was a mentorship that was structured like a post-doctoral experience, and resulted in publications and a provisional patent for high-throughput, *in vivo* screening for drugs targeting protein kinase C delta.

NIH NRSA PRE-DOCTORAL FELLOW.....1996-2000 • 4 yrs

*Department of Cell Biology and Molecular Genetics
University of Maryland, College Park*

I was awarded a National Research Service Award (NRSA) from the National Institute of Allergy and Infectious Diseases (NIAID) (F31 AI09636).

NSF/GENERAL ELECTRIC FELLOW1995

*Center for Emerging Cardiovascular Technologies
Duke University, Durham, North Carolina*
Mentor: Dr. A. Adam Sharkawy

We studied how implanted electronic sensors become encapsulated by fibrotic tissue and thus nonfunctional. I researched the literature and adopted a biochemical assay for quantitating the collagen content of biopsy samples.

TECHNICAL ASSISTANT1993

AT&T Bell Laboratories, Holmdel, New Jersey

I performed multivariate statistical analysis of performance data collected from AT&T's automated voice operators, using dBASE+ scripting and SPSS.

ENGINEERING INTERN.....1991-1993 • 3 yrs

Ultratec, Inc., Madison, Wisconsin

I wrote scripts for engineering databases in Foxbase, a network-service to send text messages to pagers in C, a mini word processor, and software in C with 8086 assembly language that interfaced with an oscilloscope to display and measure radiofrequency (RF) interference coming from devices.

2. Research, Scholarly & Creative Activities

PUBLICATION STATISTICS

h-index: 10. citations: 392 [source: [Google Scholar](#)]

CHAPTERS IN BOOKS

1. Blumberg PM, Braun DC, Kedei N, Lazar J, Pavlyukovets VA, Pearce LV. Insights into TRPV1 pharmacology provided by non-capsaicin ligands. In: Malmberg AB, Bley KR,

editors. Turning up the Heat on Pain: TRPV1 Receptors in Pain and Inflammation. Switzerland: Birkhäuser Verlag Basell; 2005. p. 55-69.

ARTICLES IN REFEREED JOURNALS

1. **Braun DC**, Stein DC. The *IgtABCDE* gene cluster, involved in lipooligosaccharide biosynthesis in *Neisseria gonorrhoeae*, contains multiple promoter sequences. J Bacteriol 2004 Feb;186(4):1038-49. doi: [10.1128/JB.186.4.1038-1049.2004](https://doi.org/10.1128/JB.186.4.1038-1049.2004)
2. **Braun DC**, Cao Y, Wang S, Garfield SH, Hur GM, Blumberg PM. Role of phorbol ester localization in determining protein kinase C or RasGRP3 translocation: real time analysis using fluorescent ligands and proteins. Mol Cancer Ther. 2005 Jan;4(1):141- 50. PMID: [15657361](https://pubmed.ncbi.nlm.nih.gov/15657361/)
3. **Braun DC**, Garfield SH, Blumberg PM. Analysis by fluorescent resonance energy transfer of the interaction between ligands and protein kinase C delta in the intact cell. J Biol Chem 2005 Mar 4;280(9):8164-71. Epub 2004 Dec 16. PMID: 15611119. doi: [10.1074/jbc.M413896200](https://doi.org/10.1074/jbc.M413896200)
4. Pu Y, Perry NA, Yang D, Lewin NE, Kedei N, **Braun DC**, Choi SH, Blumberg PM, Garfield SH, Stone JC, Duan D, Marquez VE. A novel diacylglycerol-lactone shows marked selectivity in vitro among C1 domains of protein kinase C (PKC) isoforms alpha and delta as well as selectivity for RasGRP compared with PKCalpha. J Biol Chem. 2005 Jul 22;280(29):27329-38. Epub 2005 May 27. doi: [10.1074/jbc.M414132200](https://doi.org/10.1074/jbc.M414132200)
5. Lazar J, **Braun DC**, Toth A, Wang Y, Pearce LV, Pavlyukovets VA, Blumberg PM, Lee J. Kinetics of penetration influence the apparent potency of vanilloids on TRPV1. Mol Pharmacol. 2006 Apr;69(4):1166-73. Epub 2006 Jan 17. doi: [10.1124/mol.105.019158](https://doi.org/10.1124/mol.105.019158)
6. Kedei N, Lewin NE, Géczy T, Selezneva J, **Braun DC**, Chen J, Herrmann MA, Heldman MR, Lim L, Mannan P, Garfield SH, Poudel YB, Cummins TJ, Rudra A, Blumberg PM, Keck GE. Biological Profile of the Less Lipophilic and Synthetically More Accessible Bryostatin 7 Closely Resembles That of Bryostatin 1. ACS Chem Biol. 2013 Feb 1. doi: [10.1021/cb300671s](https://doi.org/10.1021/cb300671s)
7. Czikora A, Lundberg DJ, Abramovitz A, Lewin NE, Kedei N, Peach ML, Zhou X, Merritt RC Jr, Craft EA, **Braun DC**, Blumberg PM. Structural Basis for the Failure of the C1 Domain of Ras Guanine Nucleotide Releasing Protein 2 (RasGRP2) to Bind Phorbol Ester with High Affinity. J Biol Chem. 2016 May 20;291(21):11133-47. Epub 2016 Mar 28. PMID: 27022025. doi: [10.1074/jbc.M116.725333](https://doi.org/10.1074/jbc.M116.725333)
8. **Braun DC**, Gormally C, Clark MD. The Deaf Mentoring Survey: A Community Cultural Wealth Framework for Measuring Mentoring Effectiveness with Underrepresented Students. CBE Life Sci Educ. 2017;16(1):ar10. PMID: 28188283. doi: [10.1187/cbe.15-07-0155](https://doi.org/10.1187/cbe.15-07-0155)
9. Majocho M, Davenport Z, **Braun DC**, Gormally CL. “Everyone was nice...but I was still left out”: An Interview Study About Deaf Interns’ Research Experiences in STEM. J Microbiol Biol Educ 2018; 19(1): 19.1.50. doi: [10.1128/jmbe.v19i1.1381](https://doi.org/10.1128/jmbe.v19i1.1381)
10. **Braun DC**, Clark MD, Marchut AE, Solomon CM, Majocho M, Davenport Z, Kushalnagar RS, Listman J, Hauser PC, Gormally C. Welcoming Deaf Students into STEM: Recommendations for University Science Education. CBE Life Sci Educ 2018 Fall; 17(3): es10. doi: [10.1187/cbe.17-05-0081](https://doi.org/10.1187/cbe.17-05-0081).
11. **Braun DC**, Jain S, Epstein E, Greenwald BH, Herold B, Gray M. Deaf intermarriage has limited effect on the prevalence of recessive deafness and no effect on underlying allelic frequency. PLOS One 2020 Nov 4. doi: [10.1371/journal.pone.0241609](https://doi.org/10.1371/journal.pone.0241609)

MONOGRAPHS AND REPORTS

1. Solomon CM, **Braun DC**, Kushalnagar R, Ladner RE, Lundberg DJ, Painter R, Nuzzo R. Workshop for Emerging Deaf and Hard of Hearing Scientists (White Paper). 2013 Feb.

Available from: http://doit-prod.s.uw.edu/accesscomputing/sites/default/files/WhitePaper-Final_Gallaudet_Emerging_Sci_2_15_13-1.pdf

OTHER ARTICLES

1. **Braun DC**. A Proposal for Deaf Science Education. *Educ Update*. 2013 Jan/Feb;18(3):6.

OTHER BOOKS

1. **Braun DC**, Florence BL. Carderock [guidebook]. *rakkup.com*. 2015 Oct 16.

INVITED PRESENTATIONS

1. **Braun DC**. Anthropological Genetics of Connexin 26 Deafness. Presented at: REU Seminar. 2010 Jul 23; James Madison University, Harrisonburg, VA
2. **Braun DC**. Evolutionary Genetics of Connexin 26 Deafness. Keynote at the Genomic Analysis & Interpretation Training Program and the Burroughs Wellcome Fund Inter-school Training Program in Metabolic Diseases Research Seminar; 2012 May 21; University of California, Los Angeles.
3. **Braun DC**. Evolutionary Genetics of Connexin 26 Deafness. Presented at: VL2 Meeting; 2012 Jun 6; University of California, San Diego.
4. **Braun DC**. Tracing the roots of deafness to a gene that maybe prevented disease. Presented at: TEDxMidAtlantic; 2013 Oct 25; Washington, DC. Available from <https://www.youtube.com/watch?v=yKgKM3reyBM&spfreload=10> Oct 2014.
5. **Braun DC**. Population Genetics of Cx26 Deafness: Frequency, Mutability, History and Geography. Presented at: NIDCD Seminar; 2015 Sep 15; National Institutes of Health, Bethesda, MD.
6. **Braun DC**, Gormally C, Clark MD. Applications of the Deaf Mentoring Survey to Medical Education. Presented at: Association of Medical Professionals with Hearing Loss (AMPHL); 2017 Jun 9; Rochester Institute of Technology (NY).
7. **Braun DC**. Best Practices to Mentor and Collaborate with Deaf and Hard of Hearing Scientists. Presented at: Rochester Summer Research Training Institute (RSRTI); 2017 Jun 12; University of Rochester (NY).
8. **Braun DC**. Welcoming Deaf Students into STEM: Recommendations and Research. Keynote presentation at: Opening the Pathway Conference; 2019 Oct 14; Rochester Institute of Technology (NY).
9. **Braun DC**. Mentoring Deaf Students in UREs: The Value of Cultural Competency. Keynote presentation at: Cultivating Scientific Curiosity; 2020 Aug 4; BIOME Institute.
10. Burke TB, Boll R, **Braun DC**, Reis J. Difference, not deficit: Reframing the conversation around genetics, deafness, and disability. Presentation at Inclusive Public Engagement for Geneticists Webinar Series; 2022 May 10; Genetics Society of America.

REFEREED CONFERENCE PROCEEDINGS

1. **Braun DC**, Stein DC. Production of multiple lipooligosaccharide epitopes by *Neisseria gonorrhoeae* is mediated by noncoordinate transcription of the *IgtABCDE* genes. Poster presented at: 102nd General Meeting of the American Society for Microbiology; 2002; Salt Lake City, UT.
2. **Braun DC**, Cao Y, Wang S, Garfield SH, Hur GM, Blumberg PM. Kinetics of uptake and localization of fluorescent phorbol ester and protein kinase C or RasGRP3 as a function of time after phorbol ester addition. Presented at: Advances in Fluorescence Methods for the Study of Receptors Symposium; Experimental Biology 2004; Washington, D.C.
3. Pu YM, Perry NA, Yang D, Lewin NE, Kedei N, **Braun DC**, Choi SH, Blumberg PM, Garfield SH, Stone JC, Duan D, Marquez VE. A novel diacylglycerol lactone shows marked selectivity in vitro among C1 domains of PKC isoforms α and δ as well as

selectivity for RasGRP compared to PKC. Poster presented at: 96th Annual meeting of American Association for Cancer Research; 2005; Anaheim, CA.

4. Herold B, Craft EA, Arnos KS, Tekin M, Pandya A, Nance WE, **Braun DC**. The 35delG and 167delT mutations in Connexin 26, responsible for genetic deafness, originated in founders. Poster presented at: 15th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences; 2012 Oct 20; Baltimore, MD.
5. Burton L, Parker K, Craft EA, **Braun DC**. Effects of Conductive Buffers on DNA Mobility. Poster presented at: 16th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences; 2013 Oct 26; Baltimore, MD.
6. **Braun DC**, Craft EA, Herold BK, Arnos KS, Tekin M, Pandya A. Does genetic hypermutability contribute to the prevalence of connexin 26 deafness? Poster presented at: American Society for Human Genetics Annual Meeting; 2014 Oct 20; San Diego, CA.
7. Jain S, Epstein E, **Braun DC**. Linguistic homogamy explains the recent increase in phenotypic deafness, but does not predict an increase in frequency of deafness alleles. Poster presented at: 17th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences; 2014 Oct 25; Baltimore, MD.
8. McBride C, Chin J, **Braun DC**. Practical and inexpensive DNA fingerprinting for undergraduate science majors and high school students. Poster presented at: 17th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences; 2014 Oct 25; Baltimore, MD.
9. Yang S, Pigg R, Allman B, **Braun DC**, Butala K, Furrow R, et al. The Biologists and Graph Interpretation (BioGraphI) Project: Professional Development for a Curriculum to Both Value Diverse Identities and Foster Data Literacy. Poster presented at the National Association of Biology Teachers (NABT); 2022 Nov 12; Indianapolis, IN.

NON-REFEREED CONFERENCE PROCEEDINGS

1. Stein DC, Tong Y, **Braun DC**, Reinhold V. Production of multiple lipooligosaccharides by *Neisseria gonorrhoeae* is mediated by non-coordinate transcription of the *IgtABCDE* genes [poster]. Presented at the Maryland Bioscience Forum, Washington, D.C.; 2001.
2. **Braun DC**, Stein DC. 2001. Differential transcription of the *IgtABCDE* genes contributes to lipooligosaccharide phase variation in *Neisseria gonorrhoeae* [poster]. Presented at the University of Maryland Bioscience: Research & Technology Review Day, College Park (MD); 2001
3. **Braun DC**, Hur GM, Cao Y, Wang S, Garfield SH, Blumberg PM. The use of novel, fluorescent phorbol esters to investigate the regulation of protein kinase C and RasGRP, therapeutic targets for cancer treatment [poster]. Presented at the Gallaudet Board of Trustees meeting; 2002.
4. **Braun DC**. Advances in drug discovery for protein kinase C targets using fluorescent methods. [poster]. Presented at the Intralab Seminar of the Laboratory of Cellular Carcinogenesis and Tumor Promotion, National Cancer Institute, NIH, Bethesda, MD; 2005.
5. Pavlyukovets VA, Kedei N, **Braun DC**, Pu YM, Blumberg PM. Ligand-induced dimerization of protein kinase C delta. Advanced Biotechnology Studies First Annual Research Symposium. Johns Hopkins University, Rockville, MD; 2006.
6. Esch TE, Hull R, Craft EA, Tekin M, Armstrong DF, Arnos KS, Nance WE, **Braun DC**. The 35delG mutation responsible for connexin 26 deafness in Turkish probands, may be descended from a single common founder [poster]. Presented at the End-of-Summer Poster Symposium. 2010 Jul 26. Gallaudet University; Washington (DC).
7. Herold B, Gluck S, Simons A, Greene J, Craft EA, Tekin M, Arnos KS, Nance WE, **Braun DC**. The 35delG and 167delT mutations in connexin 26, responsible for genetic

- deafness, may have originated in common founders [poster]. Presented at the End-of-Summer Poster Symposium. 2011 Jul 29. Gallaudet University; Washington (DC).
8. Herold B, Wankum T, Craft EA, **Braun DC**. Analysis of 13q12.11 loci from 1000 Genomes Project sequences show *GJB2* to be under stabilizing selection [poster]. Presented at the End-of-Summer Poster Symposium. 2012 Jul 26. Gallaudet University; Washington (DC).
 9. Herold B, Wankum T, Craft EA, Arnos KS, Tekin M, Pandya A, Nance WE, **Braun DC**. An Investigation into the Origins of the 35delG and 167delT Mutation Which Causes Connexin 26 Deafness. Presented at the End-of-Summer Poster Symposium. 2012 Jul 26. Gallaudet University; Washington (DC).
 10. Burton L, Parker K, Craft EA, **Braun DC**. Experimental study of electrophoresis buffers [poster]. Presented at the End-of-Summer Poster Symposium. 2013 Aug 2. Gallaudet University; Washington (DC).
 11. Chin J, Parker K, Burton L, Craft EA, **Braun DC**. CODIS fingerprinting. Presented at the End-of-Summer Poster Symposium. 2013 Aug 2. Gallaudet University; Washington (DC).
 12. Jain S, Epstein E, **Braun DC**. Linguistic homogamy explains the recent increase in phenotypic deafness, but does not predict an increase in frequency of deafness alleles [poster]. Presented at the End-of-Summer Poster Symposium. 2014 Jul 31. Gallaudet University; Washington (DC).
 13. McBride C, Chin J, **Braun DC**. Practical and inexpensive DNA fingerprinting for undergraduate science majors and high school students [poster]. Presented at the End-of-Summer Poster Symposium. 2014 Jul 31. Gallaudet University; Washington (DC).
 14. **Braun DC**, Craft EA, Herold BK, Arnos KS, Tekin M, Pandya A. Why is connexin 26 deafness common? Is it because of genetic hypermutability? [poster] Presented at the Research Expo. 2016 Mar 24; Gallaudet University; Washington (DC).
 15. Klemp T, Epstein E, Jain S, **Braun DC**. The Effect of Assortative Mating Between Deaf Individuals and How it Affects the Frequency of Connexin 26. Presented at the End-of-Summer Poster Symposium. 2016 Jul 29. Gallaudet University; Washington (DC).
 16. Klemp T, Epstein E, Jain S, **Braun DC**. The effect of assortative mating between deaf individuals and how it affects the frequency of connexin 26 [poster]. Presented at the Research Expo. 2017 Mar 30; Gallaudet University; Washington (DC).
 17. Jawed S, Gray M, Epstein E, Jain S, Klemp T, Bergeron A, **Braun DC**. Assortative mating due to language preference can greatly accelerate the fixation of new alleles [poster]. Presented at the End-of-Summer Poster Symposium. 2017 Jul 26. Gallaudet University; Washington (DC).

PATENTS

1. **Braun DC**, Blumberg PM, inventors; National Cancer Institute, assignee. Composition of matter and methods of use of fluorescent protein kinases. United States patent 60/572,126 (provisional). 2004 May 19.

CONTRACTS AND GRANTS

1. 5 F31 AI09636 Braun (PI) 1/31/1998 – 08/16/00
NIH/NIAID
Lipooligosaccharide Biosynthesis in the *Neisseriaceae* - National Service Research Award (NRSA)
The goal of this study was to study the genetics of lipooligosaccharide antigenic variation in *Neisseria gonorrhoeae*.
Role: NRSA Pre-Doctoral Fellow

2. Beverley Taylor Sorenson Student Fellowship (endowment). Awarded in 2011. I am the fund administrator. \$298,000; pays out annually.
3. Beverley Taylor Sorenson Renovation Fund (endowment). Awarded in 2011. \$100,000.

FELLOWSHIPS, PRIZES, AND AWARDS

1. Co-Champion – Gallaudet University National Puzzle Competition (1990)
2. Koen Fellowship (1990)
3. Wisconsin Society of Professional Engineers Scholarship (1990)
4. Leon Auerbach Mathematics Award (1991)
5. Phi Alpha Pi Honorary Society (1995)
6. Old Dominion Fellowship – Gallaudet University Alumni Association (1996)
7. NASA/DC Space Grant Consortium Fellowship (1995-96)

EDITORSHIPS, EDITORIAL BOARDS, & REVIEWING ACTIVITIES

1. Editorial Board, CBE-Life Sciences Education (2019-present)
2. Reviewer, CBE Life Sciences Education
3. Reviewer, Human Genetics
4. Reviewer, National Science Foundation (Biological Anthropology)

OTHER

1. **Braun DC.** Transcriptional analysis of the *lgtABCDE* gene locus of *Neisseria gonorrhoeae* [dissertation]. College Park (MD): University of Maryland; 2002.

3. Teaching, Mentoring, and Advising

COURSES TAUGHT IN LAST FIVE YEARS

- Introduction to Human Biology lecture
- Microbiology lecture and laboratory
- Pathogenic Microbiology lecture and laboratory
- Genetics lecture and laboratory
- Nutrition (online course)

MANUALS

1. **Braun, DC,** Pearce LL. Laboratory Manual for First Year Biology. [6 editions]. Gallaudet University; Washington, D.C. 2007
2. **Braun, DC,** Laboratory Manual for Microbiology and Pathogenic Microbiology [8 editions]. Gallaudet University; Washington, D.C. 2022.
3. **Braun, DC,** Laboratory Manual for Genetics [7 editions]. Gallaudet University; Washington, D.C. 2022.

ADVISING ACADEMIC ADVISING

I have served as an academic advisor or academic mentor to more than 30 deaf or hard-of-hearing students since 2000:

- one completed their M.S in Instructional Design and Training from Texas State University
- one is a Fulbright Scholar in India
- one became a post-bac CRTA fellow at NIH
- one is the Director of Workforce Management for Convo
- one is a Science Teacher at Model Secondary School for the Deaf
- one completed their M.D. from the University of California, San Francisco
- one completed their M.S. in Biotechnology from Johns Hopkins University
- one completed their M.S. in Athletic Training from Shenandoah University

- one completed their Pharm.D. from Hampton University
- one completed their Ph.D. in Pharmacology from the University of Minnesota and is now faculty at Gallaudet University
- one completed their M.S. in Biochemistry from the University of Maryland
- one completed their M.S. in Information Sciences from Rochester Institute of Technology and is a Data Analyst at Netlify
- one is now a M.D.-Ph.D. student at the University of Rochester
- one is in a P.A. program at University of Texas

RESEARCH MENTORING

Under my direction, I and the other faculty in the Molecular Genetics Laboratory trained 53 deaf and hard-of-hearing students between 2008-2018. The Molecular Genetics Laboratory transformed student learning and their success after college. The number of deaf and hard-of-hearing Gallaudet students going to graduate school in STEM fields increased by **almost fourfold**, from a previous average of 0.6 students per year, to 2.2 students per year by 2018.

I personally mentored 39 of these students in research experiences:

- one completed their Ph.D. in Biomolecular Structure & Design program at University of Washington and is now working for Microsoft
- one completed their M.S. in Deaf Education from McDaniel College and is a teacher at Michigan School for the Deaf
- one attended UC San Diego and is a Game and Curriculum Designer for the National Deaf Center on Postsecondary Outcomes, a research group
- one is a Ph.D. student in Epidemiology at University of Maryland and is an Assistant Professor at Gallaudet University
- one completed their M.A. in Auditory Neuroscience from Harvard and is a Regulatory Affairs Specialist at Foundation Medicine
- one completed their M.S. in Pharmacology from Ohio State University and is a senior Clinical Research Coordinator at the Ohio State University Wexler Medical Center
- one is a Public Health Laboratory Scientist at Maryland Department of Health
- one completed their M.S. in Infectious Diseases from Drexel University and is a Senior Associate Scientist at Pfizer
- one completed their M.Sc. from University of Otago and is a Laboratory Technician at Wageningen Marine Research
- one completed their M.S. in Biomedical Engineering from Georgia Tech and is a software engineer at Google
- one is an AAPC-certified professional coder
- one completed their M.P.H. in Epidemiology from the University of Nebraska Medical Center
- one completed their doctorate in Physical Therapy from Texas State University
- one is a M.P.H. student at University of Minnesota
- one is a Ph.D. student in Cancer Biology at Georgetown and a pre-doctoral fellow at NIH

HONORS CAPSTONE COMMITTEES

I have served as Chair or second reader for honors capstones for deaf and hard-of-hearing students:

- **Megan Clancy**, on ataxia telangiectasia/Louis-Bar syndrome (second reader)
- **Brienna Herold**, “A population genetics analysis of *FUT2*: Using statistics to assemble a fuller picture of the evolution of the *FUT2* gene” (Chair)
- **Megan Majocho**, “Three Personality Traits of #Deaf Scientists: Openness, Extraversion & uniquely Agreeableness” (Chair)

4. Service

CAMPUS: DEPARTMENTAL

- Chair, Biology Program Faculty Search Committees (2012, 2014, 2017)

- Chair, Information Technology Program Faculty Search Committees (2013, 2014)
- Chair, Undergraduate Research Experience Program Committee (2013-)
- Coordinator for First Year Biology Laboratory Sections (2001-2008)

CAMPUS: UNIVERSITY

- Chapter President (Founding), American Association of University Professors (AAUP), 2020-present
- Senator, Gallaudet University Faculty Senate (2004-2007)
- Chair, Academic Integrity Committee (2007-2009)
- Chair, 2nd International Deaf Academics and Researchers Conference (Feb 19-21, 2004)
- Conference Committee for “Workshop for Emerging Deaf and Hard of Hearing Scientists” (May 17-18, 2012)
- Faculty Welfare Standing Committee (2008-2011)
- Presidential Search Committee (2005-2006)
- Conference Committee for “Genetics, Disability and Deafness” (April 2-4, 2003)
- Standing Committee on Admissions, Calendar and Academic Standards (2001)
- Committee on Research Infrastructure (2012-2013)
- Young Scholars Program Planning Committee (2011-2013)

BUILDING AND LABORATORY RENOVATIONS

I’ve attended two conferences on laboratory renovations, and chaired or served on core committees for two renovation projects:

- Chair, Molecular Genetics Laboratory Planning Committee (2006-2009)
\$1.2M project; came in 20% under budget (\$977K final cost).
- Hall Memorial Building Science Lab Renovation Core Team (2013-2015)
est. \$17M project

OTHER

- Speaker, TEDxMidAtlantic 2013
- Guest Host, TEDxBaltimore 2014
- Guest Host, TEDxGallaudet 2014

5. Skills

CERTIFICATIONS

Online Teaching

- Quality Matters: Teaching Online-An Introduction to Online Delivery (TOL) (2021)
- Quality Matters: Applying the Quality Matters Rubric (APPQMR) (2020)

Rock Climbing and Mountaineering

- Certified Single Pitch Instructor, American Mountain Guides Association (AMGA) (2019-22; 2022-25)
- Certified Wilderness First Responder, NOLS (2019-22; 2022-24)

LANGUAGES

Proficient

- English
- American Sign Language

COMPUTER PROGRAMMING

I have written programs or scripts in at least 22 different languages.

Current and Proficient

- Python and modules for data science, statistics and population genetics, including matplotlib, numpy, scipy, pandas, Basemap, and pyMC.
- C
- HTML and CSS
- MacOS

- Unix (Darwin)
- MySQL
- GitHub
- Statistical and evolutionary genetics and genomics software including: BEAST, FigTree, Tracer, jModelTest, MUSCLE, samtools/vcftools, etc.
- Bioinformatics databases, particularly 1000 Genomes

Familiar

- php
- bash / zsh scripting
- Apache with various modules
- Programming and scripting languages no longer in common use, including: Intel iAPX 86 and VAX-11 assembly languages, Pascal, Fortran, Ada, DCL, FoxBase, dBASE, BASIC, Quick Basic, Visual Basic, VAX/VMS.