**CURRICULUM VITAE**

**PERSONAL DATA**

Name Brent R. Bill, Ph.D.

Title Associate Professor

IACUC Chair

University of Texas at Tyler

Citizenship USA

**LAB ADDRESS** Department of Biology, HPR 109

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Tyler, TX 75799

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**EMPLOYMENT**

2020-Present Associate Professor, University of Texas at Tyler.

2014 - 2020 Assistant Professor, University of Texas at Tyler.

**EDUCATION**

2008-2014 Post Doctoral Scholar/Fellow/Trainee, University of California, Los Angeles. Dr. Daniel Geschwind.

2002-2008 Ph.D. Candidate, University of Minnesota*,* Department of Genetics, Cell Biology and Development. Thesis topic: Utilization of Forward and Reverse Genetic Approaches to Inform Ocular and Choroid Plexus Development. Advisors: Dr. Lisa A. Schimmenti and Dr. Stephen C. Ekker

2007 Cold Spring Harbor, Course on Autism Spectrum Disorder.

1999-2002 M.S., Biotechnology, Illinois State University, Normal, Illinois, Thesis Topic: Biochemical Analysis of *Caenorhabditis elegans* Ankyrin Isoforms. Advisor: Dr Anthony J. Otsuka.

1995-1999 B.S. Biological Sciences, Illinois State University, Normal, Illinois.

**Teaching & Mentoring**

**Assistant Professor, University of Texas At Tyler**

General Biology 1106 and 1107 Lab Instructor of record (Fall 2014, 2016, 2017, 2018, 2021)

Provided guidance and evaluations for teaching assistants that were in charge of day to day instruction. Entered midterm and final grades. Helped rewrite one of the laboratories, and subsequently have trained\ students in the preparation work for this lab.

Cell Biology 3334, Spring 2015-2022 & Summer 2015

Course Prep (2015), Revised Syllabus, Delivered Lectures, and graded all assignments.

Average Student Evaluation Score (Spring 2019): 4.7/5

Cell Biology 3134, Spring 2015-2022 (2 or 3 sections per Spring) & Summer 2015 (1section)

Developed and wrote lab manual, delivered lectures, supervised teaching assistant or undergraduate teaching assistant, and assisted in grading.

Life Science I 1301, Fall 2015, 2018, 2020, 2021

Course Prep (2015) Revised syllabus, delivered lectures, and performed grading for >150 Students.

Average Student Evaluation Score (Fall 2018): 4.14/5

General Biology 2 1307, Fall 2015

Course Prep (2015) Revised syllabus, delivered lectures, and performed grading.

Average Student Evaluation Score: 3.59/5.

History of Biology 5387, Fall 2016, 2019, 2021

Developed New Course (2016) Wrote syllabus, delivered lectures and performed grading.

Average Student Evaluation Score (Fall 2016): 4.2/5

Seminar in Developmental Biology 5193, Fall 2017 Developed Course (2017), wrote syllabus, delivered lectures and performed grading.

Average Student Evaluation Score (Fall 2017): 4.8/5

Developmental Biology 5380-002 -listed as Topics in Advanced Biology, Fall 2018, 2020

Developed Course (2018), wrote syllabus, delivered lectures and performed grading.

Average Student Evaluation Score (Fall 2018): 4.5/5

Genomics 3329, Fall 2019

Course prep (Summer 2019).

**Master’s Students Thesis Advisor:** Elyse Kite (2015-2017) Doctoral of Physical Therapy Program at Boston University, Bridget Fitzgerald (2017-2018) Clinical Trial Coordinator/Lab Technician UT Austin, Amanda Solorza (2019) Instructor, TJC, Andrea Hernandez (2021-Present, comentored with Dr. Patterson), Adrian Romero (2022-Present

**Master’s Students Non-Thesis Advisor:** Jihan Alenezi (Assistant Laboratory Coordinator, UT Tyler), Justin Hunt (2021-present)

**Thesis Committee Member:** Megan Rudolf (2015), Leah Bryan (UT Northeast 2016), Derek Draper (2017), Sara Rumbelow (2018), Catherine Martini (2020), Dustin Esmond (2021), Chase Rowan (2021), Samantha Rowe (2018-Present), Lillie Hawkins (2019-Present), Sofia Tamayo (2020-Present).

**Master’s Students Non-Thesis Committee Member:** Robert Johnston (2018)

**Post-MS Volunteer:** Danielle Pritchard, M.S. - Adjunct faculty at TJC (2019)

**Undergraduate Supervisor** [Student(year)Current position if known]**:**

**UT Tyler:**

Amman Higora (2015) PharmD Student, Daniel Cahill (2015-2016) Medical Student, Sara Rumbelow (2015-2016) Lecturer UT Tyler, Erin Medina, Dental Student (2016), Saad Malik (2016), Jeremiah Onwuzurumba, Medical Student (2016), Jacob Parisi (2016), Emily Marshall (2016) PharmD Student, Michael Efughu (2016), Alexis Taylor, BSN (2016), Zachary Warren (2016), Briton Grove, Graduate School (2016), Dylan Hayes (2016), Emily Camara, Dental Student (2016-2018), Joshua Raby, Dental Student (2017-2018), Baylie Catrett, Dental Student (2018-2019), Sahir Burkie (2017-2018), Amanda Solorza, Graduate Student (2019), Olivia Brandenburg (2017-2019), Maria Alejandra Rivero (2019-2020), Daisy Vargas (2020-2021), Ahmira Manalac (2019-2020), Norma Perez-Garcia (2018-2021), Vanessa Rosado (2019-2021), Zoe Williams (2019-2021), Amy Montelongo (2020), Joseph Lively (2020), Ardian Romero (2021), Bethany Woolman (2019-Present), Kristal Ledsma (2020-Present), Armando Sanchez (2021-Present).

**Louis Stokes Undergraduate Fellows (LSAMP) – UT Tyler**

Emily Dunnahoe (TJC/UT-Austin, 2017), Aubry Doughterty (TJC, 2018), Amy Joffroin (TJC, 2020)

**UCLA undergraduates:**

Kai Ming Hu, PharmD (2008-2009), Elizabeth Hann (2011)

**University of Minnesota Undergraduates:**

Adam Deluca, Ph.D. (2004-2005), Jacklyn Morin, O.D. (2006), Eric Young, MD/PhD Student (2008), Joshua McCarra (2008) Medical Student, Toua Xiong (2008)

**UCLA High School Student Supervisor:**

Solinna Ey (2009), Kush C. Guar (2009), Michelle Bailhe (2011)

**University of Minnesota High School Student Supervisor:**

Adam DeLuca, Ph.D. (2003-2004)

**Recommendation Letters Written:**

2021: Adrian Fields, Adrian Romero, Andrew Parker, Bridget Fitzgerald, Cole Blemmings, Emily Dunnahoe, Karley Parker, Olivia Brandenburg (8).

2020: Jessica Coleman, Norma Perez-Garcia, Bridget Fitzgerald, Olivia Brandenburg, Jacob Parisi, Adrian Fields, Maria Rivero, Baylie Catrett, Bethany Woolman, Cheyenne Dooley, Laura Rosales (11).

2019: Amanda Solorza, Aubry Doughterty, Briana Aguilar, Bridget Fitzgerald, Juan Monsivais, Olivia Brandenburg, Shelby Rotenberry, Maurice Cardona, Natalia Monreal, Daisy Vargas, Sarah Reeder, James Townsend, Saad Malik (call), Elyse Kite, Natalia Monreal (15).

2018: Emily Marshall, Shane Moyer, Baylie Catrett, Ben Jordan, Dylan Hayes, Sahir Burkie, Bridget Fitzgerald, Sarah Reeder, Michael Uwubanmwen (9).

2017: Maurice Cardona, Dylan Hayes, Briton Grove, Joshua Raby, Emily Camara, Ifeanyi Nzegbuna, Jihan Alzhenai, Katy Lunceford, Raul Estevez, Kinza Ashraf, Joey Luiso, Ben Jordan, Olivia Brandenburg (13).

2016: Elyse Kite, Emily Marshall, Jeremiah Onwuzurumba, Britnee Cagel, Briton Grove, Maurice Cardona, Dylan Hayes, Kara Hegwood, Nathan Baber, Jessica Chiang, Sara Rumbelow, Laura Rosales, and Dan Cahill. (13).

2015: Shane Moyer, Bryce Lovett, Erin Medina, Eric Young, Megan Rudolf, Asami Oguro-Ando, Moneeza Mian, Osarimen Ogiamien, Carlos Rodriguez, Amman Higora, Hyder Saad (11).

2014: Meng Geng, Laura Burghi (2).

**Other Teaching Experience:**

**Lecturer**, Life Science 4 – Fundamental of Genetics (Summer 2014), Department of Life Sciences, University of California, Los Angeles.

Responsibilities: Lectured for the summer session of LS4, completely responsible for content, test, and management of 4 teaching assistants for a course of 120.

**Teaching Assistant:** Cold Spring Harbor Autism Spectrum Course, 2009.

Responsibilities: developed and taught the bioinformatics module, managed the course FTP site, and assisted faculty in setup for their modules.

**Co-developer and Teaching Assistant**: Itasca Human Genetics Module, Itasca Laboratory Course for Incoming Graduate Students, MCDG 8920, 2005 - 2007.

Responsibilities: Developed a module on Human Genetics utilizing the MERLIN genetics software package. Wrote the lab exercise and tutorial, and assisted in teaching.

**Teaching Assistant:** Genetics, Biology 4003, University of Minnesota, 2006. Responsibilities: Held weekly office hours for students, provided review sessions prior to each exam, and developed and administered the course website using the WebCT development platform.

**Teaching Assistant**: Introduction to Biology Laboratory (non-majors), University of Minnesota, 2003. Responsibilities: Taught two laboratory sections and proctored lecture exams.

**Reviewer**: Snustad and Simmons, *Principles of Genetics,* 3rd edition, Wiley and Sons, New York, 2001.

**Head Teaching Assistant:** Undergraduate Genetics Lab, Biology 219, Illinois State University, 2000-2002.

Responsibilities: Wrote the syllabus, pre-lab lectures, worksheets, assignments, quizzes, and exams for laboratory section. Graded all laboratory assignments and prepared grades for submission. Managed the other genetics teaching assistants, preparatory staff, and fly stocks. Taught 2-3 sections per semester.

**Teaching Assistant:** Undergraduate Genetics Lab, Biology 219, Illinois State University, 2000. Responsibilities: Taught 2 sections of the laboratory, including preparatory work and grading.

**Teaching Assistant:** Undergraduate Cell Biology Lab, Biology 203, Illinois State University, 2000. Responsibilities: Taught 2 laboratory sections with the faculty member in charge of the course.

**Teaching Assistant**: Introduction to Biology, Biology 101 (non-majors) Lab, Illinois State University, 1999. Responsibilities: Oversaw the lab session, graded, prepared and submitted grades.

**Teaching Enhancement:**

Panel Speaker at the Undergraduate Research Panel for the Research Learning Group UT Tyler, Spring 2019.

Writing to Learn Workshop by Lit and Lang Faculty (3 seminars - 2014) Provided Slides for the 2015 workshop on implementation on Writing Staggered Writing Assignments based on the 2014 material.

Service-Learning Workshop - Nary Subramanian & Colleen Marzilli (August 2014)

- Submitted Give Back (Service-Learning Designation) for Cell 3334 to become a service-learning course highlighting the Discovery Science Place “Science Saturdays” project where students ran an interactive morning program that elementary students could get extra credit for attending (3 Semesters).

Faculty Service Learning Community – (September 2014)

Service Learning Workshop - Dr. Jean Strait Lecture (October 24 2014)

Service Learning workshop (Grading Metrics) - Nary Subramanian (February 2016)

Crash Course in the NSF Vision and Change Program: Lessons in Active learning – Michelle Smith from University of Maine at The Allied Genetics Conference, (July 2016).

* Content was used when I chaired the Cell and Genetics Departmental Work Committee to map out course content.

**Research**

**Principle Investigator:** Functional Genomics of Autism Spectrum Disorder in Zebrafish, Virus Like Particles Cell Specific Drug Delivery in Zebrafish, Nicotine Cessation Drug Screening in Zebrafish, Parkinson’s Disease Drug Screening in Zebrafish: 2014-Present

**Postdoctoral Research**, Autism Spectrum Disorder Candidate Gene Functionality in the Zebrafish. P.I. Dr. Daniel Geschwind 2008 -2014.

**Ph.D. Thesis Research**, Reverse Genetic screen for ocular development genes, their subsequent characterization, and characterization of the zebrafish rhombomeric choroid plexus. Advisors: Dr. Lisa Schimmenti and Dr. Stephen Ekker, University of Minnesota, 2002-2008.

**Master’s Thesis Research**, Biochemical analysis of *C. elegans* ankyrin isoforms. Advisor: Dr. Anthony Otsuka, Illinois State University, 1999-2002.

**Undergraduate Directed Research**, Nuclease I mutant characterization in *C. elegans*. Advisor: Dr. Anthony Otsuka, Illinois State University, 1999.

**Undergraduate Lab Assistant**, Effects of the Comstock-Kellogg Gland on Lubber Grasshopper behavior. Dr. Douglas Whitman, Illinois State University, 1999.

**Lab Volunteer***, Pedicularis’* (parasitic nutmeg) effect on Prairie Biodiversity. Dr. Joseph Armstrong, 1996.

**Peer-reviewed Publications**

Publication Statistics

In total, I have been cited over 1700 times. According to Google Scholar, my H index is16, and i10 index is 18.

1. Adam C. Roberts, Julia Chornak, Joseph B. Alzagatiti, Duy T Ly,**Brent R Bill**, Janie Trinkeller, Kaycey C. Pearce, Ronny C. Choe, C. S. Campbell, Dustin Wong, Emily Deutsch, Sarah Hernandez, and David L. Glanzman (2019) Rapid habituation of a touch-induced escape response in Zebrafish (Danio rerio) Larvae. PLOS ONE 14(4): e0214374. <https://doi.org/10.1371/journal.pone.0214374>. Impact Factor: 2.766 – Citations: 0

Role: Advisory role in planning, and editing the paper

1. Adam C. Roberts, Kaycey C. Pearce, Ronny C. Choe, Joseph B. Alzagatiti, Anthony K. Yeung, **Brent R. Bill**, David L. Glanzman, Long-term habituation of the C-start escape response in zebrafish larvae, Neurobiology of Learning and Memory, Available online 20 August 2016, ISSN 1074-7427, <http://dx.doi.org/10.1016/j.nlm.2016.08.014>. Impact Factor: 3.439 – Citations: 7.

Role: I provided molecular expertise and was involved in the initial planning of the experiments. In addition, I was involved in the manuscript preparation.

doi: 10.1016/j.neuron.2015.12.039. Impact factor 13.974, – Citations: 61

Role: I provided unpublished data and reagents for the study.

1. Zita L.T. Yu, **Brent R. Bill**, Michael K. Stenstrom, Yoram Cohen. (2015) Feasibility of a semi-batch vertical-flow wetland for onsite residential graywater treatment. *Ecological Engineering,* 82: 311-322. Impact Factor: 2.740 – Citations: 5.

Role: I provided the biological expertise, assisted in collection and processing of samples, performed all microscopy, and assisted in manuscript preparation.

1. Asami Oguro-Ando, Clark Rosensweig, Edward Herman, Yuhei Nishimura, Donna Werling, **Brent R. Bill**, Jamee M. Berg, Fuying Gao, Giovanni Coppola, Brett S. Abrahams, Daniel H. Geschwind (2014). Disease-associated *CYFIP1*overexpression alters synapse morphology through dysregulation of mTOR signaling. *Molecular Psychiatry,* 20: 1069-1078. (doi:10.1038/mp.2014.124), impact factor 13.314 – Citations: 55.

Role: Assisted in outlining and writing the manuscript. Performed experiments.

1. Victoria M.Bedell, Anthony D. Person, Jon D. Larson, Anna McLoon, Darius Balciunas, Karl J. Clark, Kevin I. Neff, Katie E. Nelson, **Brent R. Bill**, Lisa A. Schimmenti, Soraya Beiraghi, Stephen C.Ekker. (2012) The Lineage-specific gene *ponzr1* Is Essential For Zebrafish Pronephric and Pharyngeal Arch Development. *Development* 139:793-804. doi: 10.1242/dev.071720, impact factor 5.843 – Citations:23.
2. David Alexandre, Jessy Alonzeau, **Brent R. Bill**, Stephen C. Ekker, and James A. Waschek. (2011) Expression Analysis of PAC1-R and PACAP Genes inZebrafish Embryos. *J Mol Neurosci* 43(1): 94-100. DOI 10.1007/s12031-010-9397-y, impact factor 2.504 – Citations: 12.
3. **Brent R. Bill**, Darius Balciunas, Joshua A. McCarra, Eric D. Young, Toua Xiong, Ashley M. Spahn, Marta Garcia-Lecea, Vladimir Korzh, Stephen C. Ekker and Lisa A. Schimmenti. (2008) Development and Notch Signaling Requirements in Zebrafish Choroid Plexus. *PLoS One* 3(9): e3114. DOI: 10.1371/journal.pone.0003114, Impact Factor: 2.766 – Citations: 35.
4. Michelle N. Knowlton, Tongbin Li, Yongliang Ren, **Brent R. Bill**, Lynda B.M. Ellis and Stephen C. Ekker (2008) A PATO-compliant Zebrafish Screening Database (MODB): Management of Morpholino Knockdown Screen Information. *BMC Bioinformatics* 9: 7. DOI: 10.1186/1471-2105-9-7, Impact Factor: 2.213 – Citations: 20.
5. Yolanda Alvarez, Maria L. Cederlund, David C. Cottell, **Brent R. Bill**, David R. Hyde, Stephen C. Ekker,Jesus Torres-Vazquez, Thomas S. Vihtelic and Breandan N. Kennedy. (2007) Genetic determinants of hyaloid and retinal vasculature in zebrafish. *BMC Dev Bio* 7: 114. DOI: 10.1186/1471-213X-7-114, Impact Factor: 2.573 – Citations: 119.
6. Jorune Balciuniene, Ningping Feng, Kelly Iyadurai, Betsy Hirsch, Lawrence Charnas, **Brent R. Bill**, Mathew C. Easterday, Johan Staaf, LeAnn Oseth, Desiree Czapansky-Beilman, Dimitri Avramopoulos, George H. Thomas, Åke Borg, David Valle, Lisa A. Schimmenti, Scott Selleck (2007) Recurrent 10q22-23 deletions: A genomic disorder on 10q associated with cognitive and behavioralabnormalities. *AJHG* 80: 938. DOI: 10.1086/513607, Impact Factor: 9.025 – Citations: 107.
7. Pickart M.A., Klee E.W., Nielsen A.L., Sivasubbu S., Mendenhall E.M., **Bill B.R**., Chen E., Eckfeldt C.E., Knowlton M., Robu M.E., Larson J.D., Deng Y., Schimmenti L.A., Ellis L. B. M., Verfaillie C.M., Hammerschmidt M., Farber S.A., Ekker S.C. (2006) Genome-Wide Reverse Genetics Framework to Identify Novel Functions of the Vertebrate Secretome. *PLoS One* 1: e104. DOI: 10.1371/journal.pone.0000104, Impact Factor: 2.766 – Citations: 71.
8. Lyon, C., C. Evans, **B. Bill**, A. Otsuka, and R. Aguilera (2000) The *C. elegans* apoptotic nuclease NUC-1 is related in sequence and activity to mammalian DnaseII. *Gene* 252:147-154. doi.org/10.1016/S0378-1119(00)00213-4, Impact Factor: 2.319 – Citations: 44.

In Process:

1. Bridget A. Fitzgerald, Olivia G. Brandenburg, Baylie S. Catrett, J. Michael King, Dustin P. Patterson, Brent R. Bill, Toxicity profile of VLP HK97 in *Danio rerio*. In Revision.

Role Principle Investigator: Co-written grants, Advised Students, Performed Experiments, Manuscript preparation.

1. **Brent R. Bill**#, Shaohong Cheng#, Meng Geng, Petronella Kettunen, Adam C. Roberts, Laura Burghi, Anjan Prubhuswamy, Jeffrey W. Streb, Kai Ming Hu, Qi Fei, Bo Zhang, Shuo Lin, David L. Glanzman, Daniel H Geschwind. Knockdown of the Autism Susceptibility Gene CNTNAP2 in Zebrafish Impairs Neurodevelopment and GABAergic Function. Initially submitted to HMG in 2015 # Indicates co-first authorship.

Role: I was involved in the planning of the experiment, ran many of the experiments, analyzed the data. I wrote the paper, and have been involved in subsequent revisions.

**Reviews**

1. **Bill, BR**, and V. Korzh. (2014) Choroid plexus in developmental and evolutionary perspective. *Frontiers in Neuroscience,* 8: 363. doi:10.3389/fnins.2014.00363, impact factor 3.398 – Citations: 18.
2. Roberts, Adam C., **Brent R. Bill**, and David L. Glanzman. Learning and Memory in Zebrafish Larvae. (2013) *Frontiers in Neural Circuits*, 7 (126): 1-11. doi: 10.3389/fncir.2013.00126, DOI: 10.1016/j.nlm.2016.08.014, Impact Factor: 3.101 – Citations: 61.
3. **Bill, Brent R.** and Daniel H. Geschwind. Genetic Advances in Autism: Heterogeneity and Convergence on Shared Pathways. (2009) *Current Opinions in Genetics and Development* Jun 19 (3): 271-8, DOI: 10.1016/j.gde.2009.04.004, Impact Factor: 4.995 – Citations: 188.
   1. Cited as a must read by the Faculty of 1000: Faculty of 1000 Biology: evaluations for Bill BR & Geschwind DH Curr Opin Genet Dev 2009 Jun 19 (3): 271-8. <http://www.f1000biology.com/article/id/1164761/evaluation>.
   2. In the Top 25 Hottest articles for Current Opinions in Genetics and Development as rated by Sciverse, a service of Science Direct. April 2009-December 2009.
4. **Bill, Brent R**., Petzold, Andrew M., Clark, Karl J., Schimmenti, Lisa, A., and Stephen C. Ekker. (2009) A Primer for Morpholino Use in Zebrafish. *Zebrafish* 6 (1): 69-77, doi: 10.1089/zeb.2008.0555. Impact Factor: 1.733 – Citations: 429.

**Book Chapters**

1. **Bill, Brent R.** Christina T. DyBuncio, Jennifer K Lowe, and Brent L. Fogel. (2013) Chapter 8 - Orchestration of Neurodevelopmental Programs by RBFOX1: Implications for Autism Spectrum Disorder. *International Review of Neurobiology:* *The Neurobiology of Autism.* Volume 113, 2013, Pages 251–267, DOI: 10.1016/B978-0-12-418700-9.00008-3, Impact Factor 2.371 – Citations: 42.

**Theses**

**Bill, Brent R.** (2008) *Utilization of Forward and Reverse Genetic Approaches to Inform Ocular and Choroid Plexus Development.* University of Minnesota, Twin Cities.

**Bill, Brent R.** (2002) *Biochemical Analysis of Caenorhabditis elegans Ankyrin Isoforms.* Master’s Thesis, Illinois State University.

**Non-peer Reviewed articles/Web Publications**

Brent R. Bill, Ph.D. (2016) How my sibling has shaped my career. *Spectrum* (2016)*.* [*https://spectrumnews.org/opinion/cross-talk/sibling-bonds-inspire-nextgeneration-of-autism-researchers/*](https://spectrumnews.org/opinion/cross-talk/sibling-bonds-inspire-nextgeneration-of-autism-researchers/)*.* A news publication for the Autism Community published through Autism Speaks. One of the largest funding agencies for Autism Research in the country.

**NEWS ARTICLES HIGHLIGHTING MY LAB AND/OR WORK**

CBS Evening News: Reporter Tim Wolf highlights our Autism Zebrafish work. Aired: 6-27-19. <https://www.cbs19.tv/article/news/ut-tyler-researchers-use-zebrafish-to-learn-about-autism-genetics/501-ea35003e-d08c-4d7d-8f63-fef7ef117ee2?fbclid=IwAR1MgdzR8RJoqXNG5Fltmc3SVm1zaP-C5yNtwOmFWxYbmiVrRQPrArX1aB0>

**Tyler Morning Telegraph**: UT Tyler profs team up with undergraduates for a summer research project – In the Field/Autism Study. Published on Tuesday, July 24, 2018. Written by CORY MCCOY, [comccoy@tylerpaper.com](mailto:comccoy@tylerpaper.com) - Highlights LSAMP student (Aubry Doughterty) working in my lab.

**Tyler Morning Telegraph**: UT Tyler minority undergrads work to advance their fields with summer fellowship. Published on Sunday, 16 July 2017 01:02 - Written by CORY MCCOY, [comccoy@tylerpaper.com](mailto:comccoy@tylerpaper.com) - Highlights LSAMP student (Emily Dunnahoe) working in my lab.

**Tyler Morning Telegraph**: TJC students perform summer research. Published on Monday, 17 July 2017 14:17 - Written by TJC Communications - Highlights LSAMP student (Emily Dunnahoe) working in my lab.

**Tyler Morning Telegraph**: Tyler Junior College teams up with UT Tyler professor to study genetic causes of diseases. Published on Monday, 17 July 2017 14:47 - Written by CORY MCCOY, [comccoy@tylerpaper.com](mailto:comccoy@tylerpaper.com) - Highlights LSAMP student (Emily Dunnahoe) working in my lab.

**NEWS ARTICLES – Featured Expert**

CBS Evening News: Reporter Tim Wolf highlights the importance of vaccines, I was used as an expert stating Vaccines do not cause Autism. <https://www.cbs19.tv/article/news/experts-say-vaccines-an-important-part-of-public-health/501-a92803aa-eb38-49ce-af1e-e900c78fb14e?fbclid=IwAR1qxb9oq4DRv5uKmbIuM076NvRQINC5G9clnYOBKz7v4gGQAa7-hQwvwpE>

**PUBLISHED ABSTRACTS**

P. Pretorius, Y. Agamawi, J. Hatler, S. Lerach, F. Qi, B. Zhang, **BR Bill,** S Lin, LA Schimmenti. Closing the gap: development of a novel zebrafish-based tool to assess optic fissure closure. ARVO Annual Meeting 2013. Investigative Ophthalmology & Visual Science June 2013, Vol.54, 3062.

**B. R. Bill**, S. Cheng, P. Kettunen, L. Burghi, D. L. Glanzman, D. H. Geschwind. Knockdown of Cntnap2a Causes Morphological and Behavioral Changes in Zebrafish. 18th Biennial Meeting of the International Society of Developmental Neuroscience (ISDN), Estoril, Portugal, June 6-9, 2010. International Journal of Developmental Neuroscience, Volume 28, Issue 8, December 2010, Page 719.

- Won Best Poster Award for the 18th Biennial Meeting of the International Society of Developmental Neuroscience.

BN Kennedy, O Astudillo, DC Cottell, G. Plucinska, E. Breen, **BR Bill**, J. Torres Vazques, T. Vihtelic, Y. Alvarez. Characterisation of the Morphology and Genetic Determinants of Retinal Vasculature in Zebrafish, ARVO Annual Meeting 2007. Investigative Ophthalmology & Visual Science May 2007, Vol.48, 5702.

**Journal Covers and ArtWork**

Zebrafish Journal Cover. “The Eyes Have It” 2008.

Honorable Mention, Olympus Bioscape Competition, “Cross section of a Zebrafish Eye”, 2006.

**Grants and Fellowships**

UT Tyler

Applications Pending:

1. R16 National Institute of Health, 2021 – Score 35, Role Co-PI.
2. S-Stem 2022 - Currently writing

Current Funding and Accepted Proposals:

Completed Projects:

Office of Research and Technology Transfer, University of Texas at Tyler, Modification of Virus-Like Particles to Target Skeletal Muscle, Presidential Collaboration Award: $20,000, 9/1/19-8/31/20

Office of Research and Technology Transfer, University of Texas at Tyler, Development of the Zebrafish as a model for Nicotine Cessation Drug Screening, Presidential Collaboration Award: Co-PIs with A. Hamouda, R Back, and J Beckham, $17,000, 9/1/2018-8/31/19.

LSAMP Fellowship, Student fellow – Aubry Doughtery, Tyler Junior College, Summer 2018, $1750 student stipend, $500 in research materials.

Graduate School Teaching Assistant Supplement, Bridget Fitzgerald, 8/1/2017-5/1/2019, $3500 per semester. Graduate School, University of Texas at Tyler

LSAMP Fellowship, Student fellow - Emily Dunnahoe, Tyler Junior College, Summer 2017, $3500 student stipend, $500 in research materials.

Office of Research and Technology Transfer, University of Texas at Tyler, Characterization of ASD candidate genes in Zebrafish. Research award: **Bill** (PI), 8/1/15-8/1/16, $9,300.

A. P. Giannini Postdoctoral Fellowship, **Bill** (PI) 8/15/2009 – 8/15/2012. The goal of this project is to characterize the function of CNTNAP2 in zebrafish nervous system using morpholino knockdown, DNA Rescue, and Chemical Inhibition.

Role: Postdoctoral Fellow

NIH Mental Retardation Research Center Post Doctoral Training Grant (Kirschstei NRSA), T-32 HD0703230, de Vellis (PI), 8/15/2008-8/15/2009. The goal of this project will be the establishment of tools to investigate zebrafish forebrain, specifically focusing on the functional characterization of genes linked to human mental retardation.

Role: Post Doctoral Trainee

NIH Eye Training Grant (Kirschstein-NRSA) 5T32-EY007133, McLoon (PI), 8/2003 8/2007. The goal of this project is to understand the morphogenetic movements of cell at the optic fissure, and establish *Danio rerio* as a suitable model to understand eye development.

Role: Trainee

Graduate Student Association Research Grant, Illinois State University, **Bill** (PI), 8/2001-8/2002. To Study the Biochemical properties of *C. elegans* ankyrins.

Role: Graduate Student

Phi Sigma Weigel Research Grant renewal, Beta Lambda Chapter of Phi Sigma, Illinois State University, **Bill** (PI), 5/2001-5/2002. To Study the Biochemical properties of *C. elegans* ankyrins.

Role: Graduate Student

Phi Sigma Weigel Research Grant, Beta Lambda Chapter of Phi Sigma, Illinois State University, **Bill** (PI), 5/2000-5/2001. To Study the Biochemical properties of *C. elegans* ankyrins.

Role: Graduate Student

Graduate Student Association Research Grant, Graduate School, Illinois State University, **Bill** (PI), 8/1999-8/2000. To Study the Biochemical properties of *C. elegans* ankyrins.

Role: Graduate Student

Applied (Rejected):

American Parkinson’s Association Pilot Funding 2020, role Co-PI

NSF S-STEM 2020, Role: Participating Faculty.

CPRIT 2020, Nicotine Project. Role: Co-PI.

R15 National Cancer Institute. Dustin Patterson PI, Co-Is Brent Bill, Sean Butler, David Pearson and Neil Gray, Developing Virus Like Particles as a smart bomb approach for chemotherapeutics.

MRI (Yu PI). Equipment Grant for Mercury Testing (Minor Contributor)

R15 National Cancer Institute, Dustin Patterson, Brent R. Bill, Neil Gray (CO-PIs), Developing Virus Like Particles as a smart bomb approach to chemotherapeutics. $ 250,000

R15 Developmental Biology. Development of the Zebrafish Choroid plexus, Principle Investigator: Bill, Amount: $ 250,000

NSF Collaborative Research PI: David Glanzman, Pre-proposal, Spring 2017

NIMH R15 MH115387-01 February – 2017, Using Zebrafish to Characterize Novel Autism Genes. Principle Investigator: Bill, Amount: $ 250,000 direct.

Welsh Foundation Grant: Collaborative Grant with PI: Dustin Patterson (UT Tyler),

Co-PI: Neil Gray (UT Tyler). Virus-Like Particle delivered Chemotherapeutics as a novel delivery mechanism.

Simon’s Foundation 2016 Pilot Award

The ubiquitin proteasome pathway in Austism Spectrum Disorder. Principle Investigator: Bill, Collaborator: Maria Chahour, UTSW. Amount $300,000

Simon’s Foundation 2014 Pilot Award

Utilizing the Zebrafish to Probe Genetic and Environmental Etiologic Components of ASD, Principle Investigator: Bill. Amount $250,000

Slifka/Ritvo 2014 Innovation Award

Utilizing the Zebrafish to Probe Genetic and Environmental Etiologic Components of ASD, Principle Investigator: Bill. Amount: $25,000 (for one year)

**Awards and Honors**

Excellence in Teaching Award, The National Society for Leadership and Success, Student nominated, UT Tyler, Dec. 2017.

Departmental Travel Award, Department of Genetics, Cell and Developmental Biology, University of Minnesota, 2007.

Tuition award, Autism Spectrum Course, Cold Spring Harbor Laboratory, 2007.

Outstanding Graduate Student Research Award, 21st Annual Pediatric Research, Education, and Scholarship Symposium, 2007.

Outstanding Master Student, Department of Biological Sciences, Illinois State University, 2002.

Jack A. Ward Service Award, Department of Biological Sciences, Illinois State University, 2001.

Rilett Travel Award, Department of Biological Sciences, Illinois State University, 2001.

Rilett Travel Award, Department of Biological Sciences, Illinois State University, 2000.

Graduate School Travel Award, Graduate School Illinois State University, 2000.

Worm Meeting Travel Award, Midwest *C. elegans Meeting,* 2000.

Departmental Travel Award, Department of Biological Sciences, Illinois State University, 1999.

Undergraduate Travel Award, Graduate School, Illinois State University, 1999.

**Professional Memberships**

International Zebrafish Society 2017-Present

Zebrafish Disease Models: 2020-Present

Texas Academy of Sciences 2017-Present

Genetic Society of America 2016-2017

Molecular Psychiatry Association, 2013-2015

International Society for Autism Research, 2012-Present

Society for Neuroscience, 2010 - 2015

National Postdoctoral Association, 2008 - 2014

Scientist and Engineers for America, 2006 - 2009

Sigma Xi, 2001 - 2010

AAAS, 2002 - 2010

American Society of Human Genetics, 2004 - 2006

Society of Developmental Biology, 2006.

The International Behavioural and Neural Genetics Society, 2004 - 2005.

Illinois State Academy of Sciences, 2001-2004.

Phi Sigma Biological Honor Society, Beta Lambda Chapter, Illinois State University, 1998-2002.

**Presentations**

**Invited Talks**

Zebrafish: A Developing Tool for Autism Spectrum Disorder Research. LeTourneau University, 2016 Fall Science Seminar Series.

Zebrafish: A Developing Tool for Autism Spectrum Disorder Research. 1st Annual Molecular Psychiatry Meeting, San Francisco, CA, November 9, 2013.

Functional Analysis of Autism Spectrum Disorder Susceptibility Genes. Mayo Clinic, Zebrafish Affinity Group, Department of Biochemistry, Rochester, MN, June 20, 2013.

Functional Analysis of Autism Spectrum Disorder Susceptibility Genes. Loyola Medical School, Department of Neurology, Chicago, IL, USA. November 24, 2010.

**Meeting Abstracts**

Oral Presentations

Ahmira Manalac and Brent R. Bill. A Nicotine Withdrawal Model in Zebrafish, Texas Academy of Science, Neuroscience Section,

2020.

Bridget A. Fitzgerald, Baylie S. Catrett, Olivia G. Brandenburg, J. Michael King, Dustin Patterson, and **Brent R. Bill,** Nanomedical Applications in Zebrafish: Toxicity Profile & Localization of VLP HK97 in *Danio rerio.* 2019 Association of Southeastern Biologist, Memphis, TN.

Bridget A. Fitzgerald, Baylie S. Catrett, Olivia G. Brandenburg, J. Michael King, Dustin Patterson, and **Brent R. Bill,** Nanomedical Applications in Zebrafish: Toxicity Profile & Localization of VLP HK97 in *Danio rerio.* 2019 Texas Academy of Sciences, Brownwood, TX.

**Brent Bill,** Shaohong Cheng, Meng Geng, Adam C Roberts, Petronella Kettunen, Laura Burghi, Olga Peñagarikano, Anjan Prabhuswamy, Jeffrey W. Streb, Kai Ming Hu, Fei Qi, Bo Zhang, Shuo Lin, David L. Glanzman, Daniel H Geschwind. Zebrafish: A Developing Tool for Autism Research. 7th Aquatic Models of Human Disease Conference, Austin, TX, December 13-18, 2015.

**Brent Bill**, Stephen Ekker, and Lisa Schimmenti, Modeling Eye Abnormalities in Zebrafish. 21st Annual Pediatric Research, Education, and Scholarship Symposium, University of Minnesota, 2007.

L. Schimmenti, B. Hirsch, K. Iyadurai, L. Oseth, T. Paton, **B. Bill**, W. Roberts, D. Czapansky-Beilman, L. Charnas, S. Scherer, S. Selleck, Low copy repeat (LCR) associated 10q rearrangements affecting developmental delay and autism. American Society of Human Genetics 54th annual meeting Platform presentation abstract 125, October 26-30, 2004.

Posters

Adrian Romero, Justin Hunt, Brent R. Bill, and Ayman Hamouda, Optimizing 6 Hydroxydopamine Concentrations for induction of a Parkinson’s Disease Like Behavior in Zebrafish, Experimental Biology Meeting 2022 – ASPET Submitted.

Bethany Woolman and **Brent R. Bill**, CRISPR/CAS9 Generation for the Zebrafish, *ahdc1* Gene, Texas Academy of Science 2022, Accepted.

Armando Sanchez, Zoe Williams and **Brent R. Bill**, Creation of a CRISPR/CAS9 Construct to Mutate *stox2* in Zebrafish, Texas Academy of Science 2022, Accepted.

Adrian Romero, Justin Hunt, Brent R. Bill, and Ayman Hamouda, Optimizing 6 Hydroxydopamine Concentrations for induction of a Parkinson’s Disease Like Behavior in Zebrafish, Texas Academy of Science 2022, Accepted.

Amy Joffrion and **Brent R. Bill,** Zebrafish Used as a Nicotine Screening Tool to Identify Potential Drugs to Inhibit Smoking in Humans, Texas Academy of Sciences, 2021 Virtual meeting.

Amy Joffrion and **Brent R. Bill,** Zebrafish Used as a Nicotine Screening Tool to Identify Potential Drugs to Inhibit Smoking in Humans, LSAMP 2021 regional Meeting, Online.

Amy Joffrion and **Brent R. Bill,** Zebrafish Used as a Nicotine Screening Tool to Identify Potential Drugs to Inhibit Smoking in Humans, LSAMP 2021 Texas Meeting, Online.

Amanda Solorza, Norma Perez Garcia, Ahmira J Manalac, Maria Alejandra Rivero, Ayman Hamouda, and **Brent R. Bill,** Zebrafish as a Model for Nicotine. Cessation, 2019 Texas Zebrafish Meeting, University of Houston.

Lance Williams and **Brent R. Bill,** Department of Biology: Student Success Initiatives, Provost’s Student Success Year in Review, University Center, UT Tyler.

Bridget A. Fitzgerald, Baylie S. Catrett, Olivia G. Brandenburg, J. Michael King, Dustin Patterson, and **Brent R. Bill,** Nanomedical Applications in Zebrafish: Toxicity Profile & Localization of VLP HK97 in *Danio rerio.*  2019 East Texas Research Conference, Tyler, TX.

Amanda Solorza, Norma Perez Garcia, Maria Alejandra Rivero, Ayman Hamouda, and **Brent R. Bill,** Zebrafish as a Model for Nicotine Cessation, 2019 East Texas Research Conference, Tyler, TX.

Bridget A. Fitzgerald, Baylie S. Catrett, Olivia G. Brandenburg, J. Michael King, Dustin Patterson, and **Brent R. Bill,** Nanomedical Applications in Zebrafish: Toxicity Profile & Localization of VLP HK97 in *Danio rerio.* 2019 UT Tyler Lyceum - 2nd Place Graduate Poster

Amanda Solorza, Norma Perez Garcia, Maria Alejandra Rivero, Ayman Hamouda, and **Brent R. Bill,** Zebrafish as a Model for Nicotine Cessation – Embryonic Sensitization, Lyceum 2019

Maria Alejandra Rivero, Amanda Solorza, Norma Perez Garcia, Ayman Hamouda, and **Brent R. Bill,** Zebrafish as a Model for Nicotine Cessation – Conditioned Place `Preference, Lyceum 2019

Olivia G. Brandenburg, Bridget A. Fitzgerald, and **Brent R. Bill**, Colocalization of Virus-Like Particles with the Integrin Domains of *Danio rerio,* 2019 UT Tyler Lyceum.

Baylie S. Catrett, Bridget A. Fitzgerald, Olivia G. Brandenburg, J. Michael King, Dustin Patterson, and **Brent R. Bill**, Localization of VLP HK97 in *Danio rerio,* 2019 UT Tyler Lyceum.

Norma Perez Garcia, Maria Alejandra Rivero, Amanda Solorza, Ayman Hamouda, and **Brent R. Bill,** Zebrafish as a Model for Nicotine Cessation, 2019 Texas Academy of Science, Brownwood, TX.

Sahir Burkie and **Brent R. Bill**, Generating a grin1a mutation in Zebrafish, 2018 Texas Academy of Sciences, Midland, TX.

Baylie Catrett and **Brent R. Bill**, Expression of Modulator of Smoothened (MOSMO) in Zebrafish. UT Tyler Lyceum 2018.

Olivia G. Brandenburg , Bridget A. Fitzgerald, J. Michael King, Dustin Patterson, and **Brent R. Bill**, Toxicity of Virus Like Particles in *Danio rerio.* 2018 Lyceum, UT Tyler.

Olivia G. Brandenburg, Bridget A. Fitzgerald, J. Michael King, Dustin Patterson,and **Brent R. Bill**, Toxicity of Virus Like Particles in *Danio rerio.* 2018 Texas Academy of Sciences, Midland, TX.

Emily Dunnahoe and **Brent R. Bill**, Functional Consequences and Expression of UCP Proteins in Zebrafish, 2017 Louis Stokes Alliance for Minority Participation Conference, El Paso.

Emily M.R. Marshall and **Brent R. Bill**, Functional Characterization of *stox2a* in Zebrafish, UT Tyler Lyceum, 2017 - Honorable mention

Zachary Warren and **Brent R. Bill**, Characterization of Spatial and Temporal Expression of the gene *c16orf52* in Zebrafish, UT Tyler Lyceum, 2017.

Zachary Warren and **Brent R. Bill**, Characterization of Spatial and Temporal Expression of the gene *c16orf52* in Zebrafish, 2017 Texas Academy of Science Belton, TX. - Best Poster Neuroscience Section.

**Brent Bill,** Shaohong Cheng, Meng Geng, Adam C Roberts, Petronella Kettunen, Laura Burghi, Olga Peñagarikano, Anjan Prabhuswamy, Jeffrey W. Streb, Kai Ming Hu, Fei Qi, Bo Zhang, Shuo Lin, David L. Glanzman, Daniel H Geschwind. Zebrafish: A Developing Tool for Autism Research. 2016 TexAire Neuroscience, Austin, TX, October 6 - 7, 2016.

E. P. Kite, L. Burghi, K. Hu, M. Geng, and **B. R. Bill**. Characterization of DPP6 Neuronal Expression in Zebrafish (*Danio rerio*) – poster Z6162C. The Allied Genetic Conference 2016, Orlando, FL, USA, July 13-18, 2016.

Pamela R. Pretorius, Yusuf Agamawi, Julia M. Hatler, Stephanie L. Lerach, Fei Qi, Bo Zhang, **Brent Bill**, Shuo Lin, Lisa A. Schimmenti. Closing the gap: development of a novel zebrafish-based tool to assess optic fissure closure. 2013 Association for Research in Vision and Ophthalmology Annual Meeting, Seattle, Washington, May 5-9, 2013.

K. Pearce, A.C. Roberts, A.K. Yeung, **B. R. Bill**, M. Geng, S. Chen, D.H. Geschwind, and D.L. Glanzman. Long-Term Habituation of the Startle Response in the Larval Zebrafish, *Danio rerio*. Society for Neuroscience 2012 Annual Meeting, New Orleans, LA, October 13-17, 2012.

**B. R. Bill**, S. Cheng, P. Kettunen, L. Burghi, D. L. Glanzman, D. H. Geschwind. Knockdown of Cntnap2a Causes Morphological and Behavioral Changes in Zebrafish.BRI Neuroscience Poster Day, UCLA, Los Angeles, CA, USA, November 30, 2010.

**B. R. Bill**, S. Cheng, P. Kettunen, L. Burghi, D. L. Glanzman, D. H. Geschwind. Knockdown of Cntnap2a Causes Morphological and Behavioral Changes in Zebrafish.Society for Neuroscience 40th Annual Meeting, San Diego, CA, USA, November 12-17.

1. Reported on by the Simon’s Foundation Conference Report webpage: *Fish tale implicates language gene in autism.* By Jessica Wright. <https://sfari.org/society-for-neuroscience-2010/-/asset_publisher/lVf7/content/fish-tale-implicates-language-gene-in-autism?redirect=%2Fsociety-for-neuroscience-2010>.

**B. R. Bill**, S. Cheng, P. Kettunen, L. Burghi, D. L. Glanzman, D. H. Geschwind. Knockdown of Cntnap2a Causes Morphological and Behavioral Changes in Zebrafish. 9th International Meeting on Zebrafish Development and Genetics, Madison, WI, USA, June 16-20, 2010

S. Cheng, **B.R. Bill**, M. Geng, A. Prabhuswany, K. M. Hu, J. Streb, D.L. Glanzman, and D.H. Geschwind. Identification and Characterization of *cntnap2* in Zebrafish. Center for Autism Research and Treatment at UCLA Retreat, Los Angeles, CA, USA, January 16, 2009.

**B.R. Bill**, D. Balciunas, J.A. McCarra, E.D. Young, T. Xiong, A.M. Spahn, M. Garcia Lecea, V. Korzh, S.C. Ekker and L.A. Schimmenti. Development and Notch Signaling Requirements in Zebrafish Choroid Plexus. 8th International Meeting on Zebrafish Development and Genetics, Madison, WI, USA, June 25-29, 2008.

**B.R. Bill**, D. Balciunas, J.A. McCarra, E.D. Young, T. Xiong, A.M. Spahn, M. Garcia Lecea, V. Korzh, S.C. Ekker and L.A. Schimmenti. Development and Notch Signaling Requirements in Zebrafish Choroid Plexus. Genomics and Personalized Medicine Symposium, Institute of Human Genetics, University of Minnesota, Minneapolis, MN, USA, June 11, 2008.

**B.R. Bill**, D. Balciunas, J.A. McCarra, E.D. Young, T. Xiong, A.M. Spahn, M. Garcia Lecea, V. Korzh, S.C. Ekker and L.A. Schimmenti. Development and Notch Signaling Requirements in Zebrafish Choroid Plexus. 1st Annual Biomedical Sciences Graduate Program Research Recognition Day, University of Minnesota, Minneapolis, MN, USA, May 27, 2008.

Y. Alvarez, O. Astudillo, M.L. Cederlund, D.C. Cottell, G. Plucinska, **B.R. Bill**, J. Torres-Vazques, T. Vihtelic, B.N. Kennedy. Zebrafish: A novel *In vitro* model to identify and characterize Molecular Regulators of Retinal Vasculature. 2007 European Zebrafish Meeting, Amsterdam.

B.N. Kennedy, O.Astudillo, D.C. Cottell, G.Plucinska, E.Breen, **B.Bill**, J.Torres Vazquez, T.Vihtelic, Y.Alvarez. Characterisation Of The Morphology And Genetic Determinants Of Retinal Vasculature In Zebrafish. 2007 ARVO Annual Meeting, May 6-10, 2007.

**Brent R. Bill**, Adam DeLuca, Berta Warman, Jon D. Larson, Stephen C. Ekker, Lisa A. Schimmenti. Phenotypic Analysis of Alpha-1-Microglobulin Bikunin Precursor. The International Meeting on Zebrafish Development and Genetics (Madison) June 14-18 2006.

Knowlton, M., Li, T., Ren, Y.,,Shim, K., DeLuca, A., Klee, E., Pickart, M., **Bill, B**., Ellis, L., and Ekker, S.C. Data Management for Systematic Morpholino Screening in Zebrafish. Accepted for poster presentation to the 7th International Meeting on Zebrafish Development and Genetics, July 2006, Madison, Wisconsin.

Michael A. Pickart, Eric W. Klee, Aubrey L. Nielsen, Michelle Knowlton, Sridhar Sivasubbu, Eric M. Mendenhall, **Brent Bill**, Eleanor Chen, Craig E. Eckfeldt, Lynda B.M. Ellis, Catherine M. Verfaillie,Matthias Hammerschmidt, Steven A. Farber, and Stephen C. Ekker. Genome-Wide Reverse Genetics to Identify Novel Functions of the Vertebrate Secretome. Accepted for poster presentation to the 7th International Meeting on Zebrafish Development and Genetics, July 2006, Madison, Wisconsin.

**Brent R. Bill**, Adam DeLuca, Berta Warman, Jon D. Larson, Stephen C. Ekker, Lisa A. Schimmenti. “Knockdown of alpha-1-microglobulin bikunin precursor (AMBP) causes ocular, and craniofacial defects.” The Society of Developmental Biology 65th annual meeting (Ann Arbor), June 18-22 2006.

Yolanda Alvarez, Elizabeth Breen, **Brent Bill**, Jesus Torres-Vazquez , Thomas Vihtelic, and Breandan Kennedy. Zebrafish: A Novel *In vivo* Model to Characterize Genetic Determinants of Retinal Vasculature. II Pro-Retina Research Colloquium, Potsdam, April 7-8-, 2006.

**Brent Bill**, Adam DeLuca, Berta Warman, Jon Larson, Steve Ekker, and Lisa Schimmenti. Knockdown of alpha-1-microglobulin bikunin precursor causes optic and craniofacial defects. 4th European Zebrafish Genetics and Development Meeting, Dresden, July 13-17, 2005.

**Brent Bill**, Adam DeLuca, Berta Warman, Jon Larson, Steve Ekker, and Lisa Schimmenti. Analysis of phenotypes generated by morpholino knockdown of the zebrafish homologue of alpha-1-microglobulin bikunin precursor. 3rd Annual International Conference on Transposition and Animal Biotechnology, Minneapolis, MN, June 23-24, 2005.

**B.R. Bill**, A. DeLuca, M.A. Pickart, B.E. Warman, E. Mendenhall, S.C. Ekker, L. Schimmenti. A morphlino based screen for developmental eye defects in zebrafish. American Society of Human Genetics 54th annual meeting abstract 1079, October 26-30, 2004.

**Brent R. Bill**, Stephen C. Ekker, and Lisa A. Schimmenti. Using Moropholino Oligonucleotides to Screen for Genes Required for Eye Morphology. 13th Annual University of Minnesota Symposium in Developmental Biology - From Egg to Organ: Development and Disease, September 27, 2004.

**Brent R. Bill**, Stephen C. Ekker, and Lisa A. Schimmenti. Using Moropholino Oligonucleotides to Screen for Genes Required for Eye Morphology. 6th International Conference on Zebrafish Development & Genetics, Madison abstract 274, 2004.

M.A. Pickart, E.W. Klee, A.L. Nielsen, S. Sivasubbu, E.Y. Chen, **B.R. Bill**, E.M. Mendenhall, C.E. Eckfeldt, D. Balciunas, A.E. Davidson, S.B. Hermanson, L.B.M. Ellis, L.A. Schimmenti, C.M. Verfaillie, and S.C. Ekker. An Antisense Morpholino Screen to Identify Genetic Interaction Between Transgenic Zebrafish Models and the Vertebrate Secretome. 2nd Annual Conference on Transposition and Animal Biotechnology, 2004.

[Ping Gong](http://www.wormbase.org/db/misc/person?name=Ping%20Gong;class=Author), [Dina Darwis](http://www.wormbase.org/db/misc/person?name=Dina%20Darwis;class=Author), [**Brent Bill**](http://www.wormbase.org/db/misc/person?name=Brent%20Bill;class=Author), [Jorge Munera](http://www.wormbase.org/db/misc/person?name=Jorge%20Munera;class=Author), [Jerry Perschall](http://www.wormbase.org/db/misc/person?name=Jerry%20Perschall;class=Author), [Janna Lindemulder](http://www.wormbase.org/db/misc/person?name=Janna%20Lindemulder;class=Author), [Anthony J Otsuka](http://www.wormbase.org/db/misc/person?name=Anthony%20J%20Otsuka;class=Author). [Two-hybrid Screen for UNC-44 AO13 Interacting Proteins](http://elegans.som.vcu.edu/wli/%5Bwm2001p429%5D/). International C. elegans Meeting, Los Angeles, abstract 429, 2001.

[**Bill B.R**](http://www.wormbase.org/db/misc/person?name=Bill%20BR;class=Author)**.,** and[Otsuka AJ](http://www.wormbase.org/db/misc/person?name=Otsuka%20AJ;class=Author),. [Biochemical Purification and Characterization of C. elegans UNC44 AO13 Ankyrin](http://elegans.som.vcu.edu/wli/%5Bmwwm2000p56%5D/) Midwest Worm Meeting, Minneapolis, 2000.

Lyon C., C. Evans, **B. Bill**, A. Otsuka, and R. Aguilera, The *C. elegans* apoptotic nuclease NUC-1 is related in sequence and activity to mammalian DnaseII. *Molecular Biology of the Cell*. Supplement: The American Society for Cell Biology 40th annual meeting. Volume 11, page 516a, abstract 2669, 2000.

[**BR Bill**](http://www.wormbase.org/db/misc/person?name=BR%20Bill;class=Author), [SS Chan](http://www.wormbase.org/db/misc/person?name=SS%20Chan;class=Author), [DA Darwis](http://www.wormbase.org/db/misc/person?name=DA%20Darwis;class=Author), [MH Domanus](http://www.wormbase.org/db/misc/person?name=MH%20Domanus;class=Author), [B McFaul](http://www.wormbase.org/db/misc/person?name=B%20McFaul;class=Author), [A Khan](http://www.wormbase.org/db/misc/person?name=A%20Khan;class=Author), [K Stergulz](http://www.wormbase.org/db/misc/person?name=K%20Stergulz;class=Author), [S Windler](http://www.wormbase.org/db/misc/person?name=S%20Windler;class=Author), [N Velamparampil](http://www.wormbase.org/db/misc/person?name=N%20Velamparampil;class=Author), [AJ Otsuka](http://www.wormbase.org/db/misc/person?name=AJ%20Otsuka;class=Author). [Analysis of the UNC-44 Ankyrins](http://elegans.som.vcu.edu/wli/%5Bwm99p195%5D/). International C. elegans Meeting (Madison) abstract 195, 1999.

[Velamparampil N](http://www.wormbase.org/db/misc/person?name=Velamparampil%20N;class=Author), [Kinsman W](http://www.wormbase.org/db/misc/person?name=Kinsman%20W;class=Author), [Domanus MH](http://www.wormbase.org/db/misc/person?name=Domanus%20MH;class=Author), [Chan S](http://www.wormbase.org/db/misc/person?name=Chan%20S;class=Author), [Stergulz K](http://www.wormbase.org/db/misc/person?name=Stergulz%20K;class=Author), [Mackey S](http://www.wormbase.org/db/misc/person?name=Mackey%20S;class=Author), [Deoskar A](http://www.wormbase.org/db/misc/person?name=Deoskar%20A;class=Author), [**Bill BR**](http://www.wormbase.org/db/misc/person?name=Bill%20BR;class=Author), [Otsuka AJ](http://www.wormbase.org/db/misc/person?name=Otsuka%20AJ;class=Author). [Analysis of the UNC-44 Ankyrins](http://elegans.som.vcu.edu/wli/%5Bwm99p195%5D/). Midwest Worm Meeting, Chicago, 1998.

Otsuka, A.J., N. Velamparampil, M. Domanus, K. Stergultz, S. Chan, **B. Bill**, and N. Rebeiz, Analysis of the *C. elegans unc-44* ankyrin gene products. *Molecular Biology of the Cell*. Supplement: The American Society for Cell Biology 38th annual meeting. Volume 9, page 225a, abstract 1300, 1998.

**Invited Local Talks**

Functional Analysis of Autism Spectrum Disorder Susceptibility Genes. UCLA Center for Autism Research and Treatment, March 29, 2013.

Reverse Genetic Screening of Autism Candidate Genes in the Zebrafish. Zebrafish Affinity Group, Brain Research Institute, UCLA, June16, 2012.

Functional Analysis of *cntnap2a* in zebrafish. Zebrafish Brain and Behavior Group,

January 14, 2011.

Establishing a Protocol to Assess Autism Susceptibility Candidate Genes in Zebrafish. Zebrafish Brain and Behavior Group, March 9, 2009.

Modeling Eye Abnormalities in Zebrafish, Zebrafish Affinity Club, April 21, 2008. Development and Notch Signaling Requirements in Zebrafish Choroid Plexus. Developmental Biology Center Meeting, March 7, 2008

The Zebrafish Choroid Plexus, Zebrafish Affinity Club, February 18-2008. Development and Notch Signaling Requirements in Zebrafish Choroid Plexus. Molecular, Cellular, Developmental Biology and Genetics Departmental (ITV) Seminar, 10-15-2008.

Phenotypic Characterization of Alpha-1-Microglobulin Bikunin Precursor (AMBP) in the Zebrafish (*Danio rerio).* Institute of Human Genetics Seminar, April 5, 2007.

Phenotypic Characterization of Alpha-1-Microglobulin Bikunin Precursor (AMBP) in the Zebrafish (*Danio rerio).* Developmental Biology Center Meeting, February 2, 2007.

Phenotypic Characterization of Alpha-1-Microglobulin Bikunin Precursor (AMBP) in the Zebrafish (*Danio rerio),* Molecular, Cellular, Developmental Biology and Genetics Departmental Seminar, October 20, 2006.

Phenotypic Characterization of Alpha-1-Microglobulin Bikunin Precursor (AMBP) in the Zebrafish (*Danio rerio)* Developmental Biology Center Meeting, April 7, 2006.

Phenotypic Characterization of Alpha-1-Microglobulin Bikunin Precursor (AMBP) in the Zebrafish (*Danio rerio),* Molecular, Cellular, Developmental Biology and Genetics Departmental Seminar, February 20, 2006.

Phenotypic Characterization of Alpha-1-Microglobulin Bikunin Precursor (AMBP) in the Zebrafish (*Danio rerio).* Developmental Biology Center Meeting, April 8, 2005.

Alpha-1-Microglobulin Bikunin Precursor and Retinoic Acid Signaling. Institute of Human Genetics seminar, 3-24-05.

Using Forward and Reverse Genetic Screens to Identify Developmental Eye Defects in Zebrafish (*Danio rerio).* Molecular, Cellular, Developmental Biology and Genetics Departmental seminar, 2-7-05.

**Service**

**Community Service:**

Discovery Science CenterSpring 2016, 2017 – Maker Faire, Hosted a booth explaining transgenic zebrafish to the public. Attendees were able to see live Glofish, and I assembled a poster explaining how these animals were made.

Discovery Science Center – “Science Saturdays!”Spring and Summer of 2015-2016 (3 semesters total). Initiated with Christopher Rasure, Executive Director of the Discovery Science Place, to provide educational programming on Saturdays at the Discovery Science Place. This was well received by the Museum staff, parents, and many students. This was classified as **service learning project** for my Cell 3334 Class and was certified as such, the course was certified as a Service Learning Couse by the UT Tyler gives back program. Students presented 3 sessions per Saturday, each session was approximately 20 minutes, providing an interactive and educational topic from cell biology to a target audience of between 20 and 30 Junior High children and their parents.

Jury Duty: 2015, 2018

**Professional Service:**

Texas Academy of Science’s Student Grant Reviewer – 2019, 2020, 2022.

Academic Director, Texas Academy of Sciences, 2019-Present

Vice Chair for the Biomedical Section, Texas Academy of Sciences -2017-Present

Oral Presentation and Poster Judge: Texas Academy of Sciences, 2017 (Belton), 2018 (Midland), 2019 (Brownwood).

Alpha Chi National Honor Society Grant Reviewer (2017, 2020)

Poster Judge: LSAMP Summer research poster presentations, University of Texas at Tyler, 8-5-16.

Adhoc Grant Reviewer: U.S. (NSF)-Israel Binational Science Foundation, 2016, 2018.

Journal Article Reviewer:*Molecular Autism*, 2010; *PLoS One,* 2012; *Lancet*, 2012; *Neurologic Clinic*s, 2012; *Translational Psychiatry*, 2013; Zebrafish, 2016, Progress in Neuropharmacology and Psychiatry (2018).

**Departmental:**

Deaprtmental QEP Committee – 2022-Present.

Darwin Day Chair: 2021to present – Prepared for Dr. Sean B Carroll Keynotes.

Departmental Faculty Search Committee (Chair Jon Seal), 2022

Department Graduate Affairs Committee (Chair: **Brent Bill**) 2021-2022.

Departmental Seminar Committee (Chair Jon Seal), 2020

Department Core Cirriculum Committee (Chair Jessica Coleman), 2020-Present

Department Search Committee (Chair: Jessica Coleman) 2020.

Departmental Planning (Student Success) Committee, Chair 2018-2019

Planned inaugural events: Freshman Welcome Dinner, Halloween Pokey O’s, Mid-term donuts and coffee, Graduate Luncheons (Fall and Spring), and the Alumni Picnic. Helped with poster summarizing our efforts.

Davidson Grant Spending Committee, 2019

Departmental Faculty Search Committee (Chair Dr. Stephanie Daughtery): Lecturer, 2019

Core Assessment Committee (Chair, Jessica Coleman) 2017-Present.

Departmental Faculty Search Committee (Chair Dr. Neil Ford): Department Chair, 2018.

Science Communications Advisor: 11 Students as of January 2017.

Departmental Graduate Admission Committee (Chair: Jon Seal, Neil Ford), 2016-2018, 2021 (Chair)

Departmental Faculty Search Committee (Chair Dr. John Placyk): Evolutionary Entomologist, 2016.

Departmental Planning Committee (Chair: Dr. Blake Bextine): 2015-2016

Darwin Day Committee (Overall Organizer: Josh Banta), Organized rooms and Moderated Videos Chaired the Video Committee,

“Your Inner Fish.” - 3 episodes; Darwin Day 2015

“Becoming Human.” Episodes 1 and 2, and “Decoding Neanderthals;” Darwin Day 2016

“Origin of Species,” “The Biology of Skin Color,” and “The Mass Extinctions;” Darwin Day 2017.

The Evolution of Sex, Shape, and Venom, Darwin Day 2018  
 The Evolution of Eyes, Jaws, and Communication, Darwin Day 2019

**College of Arts and Sciences Service:**

Curriculum Committee (Chair: Alexis Hughes, Colin Snider):Reviewed new course and programmatic changes including the entire Chemistry Master’s Program. 2016-2018.

**University of Texas at Tyler Service:**

IACUC committee Chair 2017-Present

University Research Council – Ad hoc member (IACUC Chair) 2017 - Present

The Joint Admission Medical Program (JAMP) Advisory Committee (Chair: Neal Gray) 2017-present

UT Tyler Freshman Orientation, Dunk Tank 2019

UT Tyler Honors’ Quiz Night, Scoring Table, 2019

Poster Judge: UT Tyler Honor Lyceum 2017 - 2019

IACUC committee (Chair: Lance Williams): Reviewing proposals, and ensuring proper training, 2016-2017.

Graduate School Representative:The Doctoral Defense for Tammy Burnette, 2015, Beth Gamble 2018

Institutional Infectious Organism Research Review Committee, 2021-present

QEP Pilot group, 2021-present – Cell Biology and real world problem solving.

**Service at UCLA:**

Organizer, UCLA, Center for Autism Research and Treatment Journal Club 2010-2013.

Co-organizer, UCLA Zebrafish Affinity Club, 2010-2012.

Grand Rounds Committee Member, Department of Neurology, David Geffen School of Medicine. 2010-2013. Hosted Dr. Michael Wong, 2010; Dr. James Lupski, 2011; Dr. Hazel Sive, 2011; Dr. Matthew State, 2012, Dr. V. Reggie Edgerton 2013, Dr. Todd Preuss 2013.

Organizer, UCLA Zebrafish Brain and Behavior Group, 2008-2010.

Grant Reviewer, Center for Autism Research and Treatment, UCLA, 2009.

**Service at University of Minnesota:**

Organizer, University of Minnesota Zebrafish Affintiy Club. 2007-2008

University of Minnesota Student Invited Speaker Committee Co-chair, hosted Dr. Alex Schier, 2006; hosted Dr. Marianne Bronner, 2007.

NIH funded workshop Attendee, the International Children's Anophthalmia Network, April 11-12, 2003.

**Service at Illinois State University:**

Grant Reviewer, Phi Sigma Biological Honor Society, Illinois State University, 2002.

Meeting Organizer, 1st Annual Phi Sigma Symposium, 2001.

Steering Committee, 2nd Annual Phi Sigma Symposium Illinois State University, 2002.

Webmaster, Phi Sigma Biological Honor Society, Beta Lambda Chapter, Illinois State University, 2000-2002.

Vice President, Phi Sigma Biological Honor Society, Beta Lambda Chapter, Illinois State University, 2000-2001.

Funk’s Grove Prairie Restoration, 1995-2002: Don Schmidt leader. Participated in prairie restoration: Prairie burns, seed collection invasive cutting, forbes plantings, and student transportation. Saturdays from 9-12.