

CURRICULUM VITAE

Stephanie Bingham, PhD

EDUCATION

<i>University</i>	<i>Degree/Training</i>	<i>Date</i>	<i>Concentration</i>
University of Miami Miller School of Medicine	Post-doctoral	2007	Neurobiology
University of Missouri-Columbia	PhD	2003	Biological Sciences
Barry University	BS	1997	Biology

PROFESSIONAL ACADEMIC EXPERIENCE

<i>Position</i>	<i>Organization</i>	<i>Dates</i>
<i>Professor of Biology</i> <ul style="list-style-type: none">▪ Academic instruction, curriculum development and revision▪ Academic advising and mentorship▪ Grant-writing▪ Basic science research▪ Service in an advisory capacity for multiple departmental and university-wide initiatives including preparing reports and presentations	CAS, Barry University	Aug 2019 – present
<i>Associate Professor of Biology</i>	CAS, Barry University	Aug 2014 – 2019
<i>Assistant Professor of Biology</i>	CAS, Barry University	Aug 2008 – 2014
<i>Adjunct Professor</i>	CNHS, Barry University	Aug 2007 – May 2016
<i>Teaching Assistant/Lecturer</i>	University of Miami	Jan – May, 2005; 2007

PROFESSIONAL AWARDS

- Apr 2018: Inaugural **Innovation in Teaching Excellence Award**, Barry University
- Apr 2018: **Excellence in Teaching Award**, Barry Chapter of the National Society of Leadership and Success
- Mar 2017: **Community Engagement Educator Award**, Center for Community Service Initiatives
- Dec 2015: **Excellence in Teaching Award**, Barry Chapter of the National Society of Leadership and Success
- Apr 2011: **Outstanding Faculty Award** in recognition of accomplishments in teaching and scholarship, Barry University
- May 2003: **Superior Graduate Achievement Award**, University of Missouri, Biological Sciences

ACCOMPLISHMENT HIGHLIGHTS

- Curriculum development and/or revision for 20 biology courses: A combination of lecture and laboratory; face-to-face and online; undergraduate and graduate
 - Multiple awards for teaching excellence/innovation and community engagement
 - Grant awards totaling \$977,164 for research, instrumentation and student success
 - First in the Department of Biology to venture into online instruction, via blended courses
 - Research mentor to 92 students (primarily first-generation, under-represented undergraduates)
 - Multiple student engagement and success initiatives including establishment of a recruitment and retention committee for the Department of Biology
 - Establishment of a science outreach program with neighboring Title I elementary schools, with the goal of closing the achievement gap
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STUDENT SUCCESS INITIATIVES

Aug 2021 – 2022: **Faculty Mentor, Year 1**, Engaged STEM Scholars Program

- Responsible for developing programming to continue identity building and the provision of professional development enrichment opportunities in preparation for the STEM workforce and graduate studies (funded through NSF S-STEM Award No.1930076).

June 2021 – August 2021: **Coordinator**, Summer Scholars Program

- Developed programming to create strong STEM identities and peer bonds with this cohort of students preparing to join the NSF-funded Engaged STEM Scholars Learning Community in the fall semester.

Aug 2019 – May 2020: **Coordinator**, STEM Learning Community

- Developed programming for this STEM discipline learning community: academic support, field trips, community engagement.

April 2019 – present: **Founding Chair**, Government-Industry Advisory Committee, Department of Biology

May 2018: **Faculty Advisor**, Environmental Leadership Experience; Adrian, Michigan

- Accompanied students and served as a liaison as they learned about permaculture practices on the Adrian Dominican Sister Motherhouse campus; participated in fieldtrips and lectures that emphasized environmental stewardship and sustainability

Apr – May 2017: **Chair**, Undergraduate Student Success Taskforce Subcommittee on the in-class Experience

As Chair of the taskforce's sub-committee on assessing students' in-class experiences, I facilitated

- Dialogue and the collection of data centered on identifying barriers to success in the classroom
- The formulation of recommendations on how to address these barriers effectively based on factors unique to the university as well evidence-based practices

Jan 2017 – present: **Member**, Undergraduate Student Success Taskforce

Mar 2014 – present: **Founding Chair**, Biology Recruitment and Retention Committee

In response to having a large population of students who are under-prepared for the rigors of university-level studies, I established this committee which subsequently:

- Developed and administered a pre-assessment quiz for first-year biology majors to get a sense of their competencies entering the major and determine whether this can be used as a predictor of success/retention in the major
- Conceived of the idea, developed and now facilitates a 3-day Academic Skills Boot Camp at

the beginning of each semester to help new students make a smoother transition to college life and the biology major

- Explored additional avenues for improving student engagement and increasing satisfaction in the major:
 - Undergraduate research open house
 - Mentoring program between new students and upperclassmen with similar career goals
 - Professional development workshops for students, including workshops on analyzing research articles and writing papers in the biological sciences
 - During the 2nd academic year of the COVID-19 pandemic, surveyed students on how they were coping with the adjustment to remote learning and the pandemic overall and upon returning to campus, how they were coping and adjusting in the midst of the ongoing pandemic.

Feb 2012 – May 2013: **Member**, Standing Committee on Undergraduate Student Retention

2012: **Faculty Senate Liaison**, Student Retention and First-Year Programs

ADDITIONAL STUDENT-CENTERED ACTIVITIES

Undergraduate Student Research Mentoring

In the past 15 years, 102 Barry undergraduates (primarily first-generation college students), 4 Barry graduate students, and 1 high school student have conducted research under my mentorship in my developmental neurobiology research lab co-authoring more than 70 abstract publications. These former students are now in various spheres in science and medicine working or training as MDs, DOs, PhDs, MD/PhDs, and MPHs.

Research Theses

MARC Program:

Advisor, Minority Access to Research Careers (MARC) Thesis

Alec Davila: Investigation of DNA Methylation in Response to Ethanol Exposure (2013).

Honors Program:

Advisor, Honors Thesis

Jessica Bosch: Promoting Alternative Medicine-based Drug Research via the Examination of the Isolated Compounds Found in Natural Medicine (2023)

Advisor, Honors Thesis

Anaya Ruiz: How the COVID-19 Pandemic Highlighted Racial Disparities and Unequal Access to Healthcare (2021)

Taylor Checkley: Genetic Testing: The Importance of Knowing (2021).

Arin Blake: Examining Racial Disparities in Health Status and Outcomes among Women (2020).

Taylor Malinowski: The Current Military Response to Combat-Related PTSD: A Qualitative Analysis on Treatment, Prevention, Genetic Implications, and Ethical Concerns (2016).

Second Reader, Honors Thesis

Lauren Sanchez: A Meta-analysis of the Obesity Epidemic in the United States (2013).

Marc Knezevic: Patient Satisfaction in Healthcare (2011).

Abstract Publications and Presentations on Student Engagement & Success:

1. Flona Redway, Yu-Wai Peter Lin, **Stephanie Bingham**. *Is this the right mentor for me?* Florida Undergraduate Research Conference, St. Thomas University, Miami, FL, February 18, 2013. (interactive presentation).
2. Michael Bill, **Stephanie Bingham**, Yu-Wai Peter Lin, Flona Redway. *Visualizing & understanding experimental design and data interpretation for freshman STEM students*. Florida Statewide Symposium, University of Central Florida, FL, October 25-26, 2019. (interactive presentation).
3. M. Romero, M. Pesce, J. Cole, J. Gillard, A. Escalera-Torres, A. Ruiz, **S. Bingham**. *Enlisting Undergraduates to Strengthen K-12 Science Education*. Experimental Biology Conference, Orlando, FL, April 6, 2019. (poster)
4. Flona Redway, Yu-Wai Peter Lin, Teresa Petrino, **Stephanie Bingham**. *Expanding science opportunities to the local community*. Florida Statewide Symposium at Florida Atlantic University, Boca Raton, FL, October 19 – 20, 2018. (poster)
5. Michael Bill, Yu-Wai Peter Lin, Teresa Petrino, Flona Redway, **Stephanie Bingham**. *Engagement in Undergraduate Research Symposium at the University of Central Florida, Orlando, FL, October 26 – 27, 2017. Making Critical Inquiry an Integral Part of the Undergraduate Science Education Culture*. (poster)
6. A. Flores, J. Trinidad, V. Crooks, C. Alexis, J. Campbell, B. Cottman, A.M. Hope, S. Dorismond, J. Gavia-Suarez, H. Gokingco, J. Kelly, V. Laguerre, G. Lin, A. Linares, S. Monreal, P. Nwokoye, J. Roberts, M. Ruiz, P. Sanchez, B. Telusma, R. Zabaleta, **S. Bingham**. *Undergraduates Provide Support for Science Education at the K-12 Level*. Presented at the Fourth Annual Community Engagement Symposium, Barry University, March 29, 2017.
7. **S. Bingham**, F. Redway, T. Petrino-Lin, P. Lin. *Expanding the framework of undergraduate research and education*. Presented at the Engagement in Undergraduate Research Symposium at the University of Central Florida, Orlando, FL, October 21 – 26, 2016.*
8. F. Redway, **S. Bingham**. *Incorporating Research into the Biology Curriculum*. Presented at the National Conference on Undergraduate Research, Asheville, NC, April 7 – 9, 2016.

Academic Advising and Mentorship:

In addition to full-time teaching and committee service, I advise 15 – 25 Biology majors each academic year, following their progress throughout their time as Biology majors and providing information on academic success and professional development including, but not limited to:

- Developing personalized degree completion plans and revising as needed
- Intervening when students are in danger of performing poorly in their coursework by providing academic and emotional support for students experiencing difficulties
- Organizing summer research internship informational sessions each year
- Informing students of scholarship, professional development (e.g., grad placement examination preparation tips) and internship opportunities

Professional Development:

I actively seek out opportunities to enhance the academic experience of my students including:

- Inviting guest speakers in a wide variety of biology-related fields to provide students with exposure to different career options and first-hand accounts from professionals in these fields

- Liaising with the Career Development Center to provide relevant programming for biology majors
- Serving as faculty advisor for the pre-health student organization, Minority Association of Pre-health Students (MAPS)

K-12 SCIENCE EDUCATION OUTREACH

Dec 7, 2021: **Principal for the Day**, Arch Creek Elementary School, Miami, FL

Nov 2021 – present: **Science Education Outreach**, Arch Creek Elementary School, Miami, FL

Feb – Mar 2020: **Science Education Outreach**, Gratigny Elementary School, Miami, FL

Feb 2019: **Organizer**, Science and Math Under the Stars, an evening for 4th and 5th graders and their parents, North Miami Elementary School, North Miami, FL

Jan 2019: **Science Fair Judge**, American Heritage School, Plantation, FL

Aug 2018: **Session Facilitator**, *Introduction to Cells*, Redeemer Church Royal Family Kids Camp, Miami, FL

July 2018: **Session Facilitator**, *Introduction to DNA*, I Have a Dream Foundation, College Experience Day, University of Miami, Coral Gables, FL

Mar 2018: **Presentation Judge**, Life Sciences South Florida STEM Undergraduate Research Symposium, Florida International University, Miami FL

Feb 2015 – 2019: **Science Fair Judge**, South Florida Science and Engineering Fair, Miami, FL

Jan 2018: **Science Fair Judge**, American Heritage School, Plantation, FL

June 2017: **Science Education Outreach**, St. Mary’s Cathedral School, Miami, FL

May 2017: **Career Day Presenter**, St. Mary’s Cathedral School, Miami, FL

May 2017: **Career Day Presenter**, North Miami Elementary School, Miami, FL

Mar 2017: **Science Fair Judge**, North Miami Elementary School, Miami, FL

Jan 2017: **Science Fair Judge**, American Heritage School, Plantation, FL

Dec 2016: **Science Fair Judge**, City of Miami Gardens Science Fair, Miami, FL

Sept 2016: **Children’s Trust Expo Exhibitor**, Frost Science Community Engagement Event, Miami

Mar 2016: **Career Day Presenter**, North Miami Elementary School, Miami, FL

Mar 2016: **Youth Fair Exhibitor**, Frost Science Community Engagement Event, Miami, FL

Dec 2015 – 2016: **Member**, Scientific Review Committee of Broward, FL

Dec 2015: **Science Star Presenter**, Frost Science Community Engagement Event, Crestview Elementary, Miami Gardens, FL

Sept 2015 – May 2019: **Science Education Outreach**, North Miami Elementary, Miami, FL

FL Apr 2015: **Presentation Judge**, Life Sciences South Florida STEM Undergraduate Research Symposium, Indian River State College, Port St. Lucie, FL

Mar 2012 – 2020; 2023: **Exhibitor**, Annual Miami Brain Fair for Kids, Miami, FL

FL Sept 2011 – present: **Faculty Advisor**, Minority Association of Pre-health Students (MAPS; student organization established in fall 2011)

Jan 2011 – 2013: **Science Fair Judge**, South Florida Science and Engineering Fair, Miami, FL

Apr 2010: **Career Day Presenter**, Downtown Miami Charter School, Miami, FL

June 2009: **Neuroscience Presenter**, Southern Boone Elementary School, Ashland, MO

Nov 2009, 2010, 2012: **Science Fair Judge**, St. Rose of Lima Elementary School, Miami Shores, FL

Sept 2008 – Aug 2010: **Member**, Best Buddies, Barry University, Miami Shores, FL

Sept – Oct 2008: **Faculty Advisor**, Best Buddies, Barry University, Miami Shores, FL

Apr 2007: **Career Day Presenter**, Paradise Island Elementary School, Miami, FL

May 2005 – 2007: **Career Day Presenter**, Paul Lawrence Dunbar Elementary, Miami, FL

INSTRUCTIONAL ACTIVITIES AND CURRICULUM DEVELOPMENT

Over the past 15 years, I have taught more than 20 different courses, from freshman to graduate levels, traditional and non-traditional students. During this time, I implemented measures to help students relate to the course material and better grasp concepts:

- To address the learning needs of my students, many of whom are under-prepared for the rigors of university-level studies, I have led the way with innovative revisions to my courses, almost all of which now utilize adaptive learning exercises with the use of digital textbook exercises to encourage student engagement, clicker technology for real-time assessment of student comprehension, as well as computerized testing to make students more comfortable using technology-based testing.
- I was also the first in my department to test the online learning format by converting two of my courses to the hybrid online/face-to-face format prior to the COVID-19 pandemic.

Courses Taught, August 2008 – present (23 courses)

College of Arts and Sciences (CAS):

Course Number *Course Title*

BIO 101B	Your Genome and You
BIO 104/110L	Biological Foundations lab
BIO 105	Biomedical Terminology
BIO 220	Foundations of Human Anatomy lecture
BIO 220L	Foundations of Human Anatomy lab
BIO 240	Foundations of Human Physiology lecture
BIO 240L	Foundations of Human Physiology lab
BIO 295/395/495	Faculty-mentored research
BIO 303	Human Genetics
BIO 330	Cell Biology
BIO 337	Neurobiology
BIO 341L	Genetics lab
BIO 451	Embryology

College of Nursing and Health Sciences (CNHS):

Course Number *Course Title*

BIOE 303	Human Genetics
BIOE 330	Cell Biology
BIOE 346	Parasitology
BMS 537	Medical Genetics (graduate course)
BIOE 665	Research Methodologies (graduate course)
CLB 435	Molecular Diagnostics, I

Courses Developed and Revised

Semester/Year *Course Title (course number)*

Fall 2009	Embryology (BIO 451)
Fall 2010	Neurobiology (BIO 337)
Spring 2016	Research (BIO 295/395/495); service-learning designation awarded
Fall 2017	Embryology (BIO 451); converted to blended course
Fall 2017	Introduction to Research Methods (BIO 295); modification of existing course
Spring 2018	Current Topics in the Biomedical Sciences (Special Topics/BIO 304)

ADDITIONAL PROFESSIONAL EXPERIENCE

<i>Position</i>	<i>Organization</i>	<i>Dates</i>
Medical Editor	Institute for Medical Education & Research	Sept 2007 – Aug 2008

- Wrote manuscripts based on oncology key opinion leader (KOL) slide presentations from continuing education (CE) and continuing medical education (CME) symposia; these manuscripts were incorporated into CE newsletters, monographs, and oncology publications
- Provided substantive edits to manuscripts provided by oncology KOLs
- Wrote and edited abstracts for CE and CME presentations
- Edited monographs, newsletters, slide decks for CE symposia, advertising materials for direct mailing as well as academic journals, and copy for Web page postings

GRANT WRITINGAwarded Extramural Grants to Support Research and Enrichment Endeavors

Dec 2020: **Co-Principal Investigator**, NSF Scholarships in Science, Technology, Engineering, and Mathematics Program (\$650,000)

Mar 2014: **Co-Principal Investigator**: American Society for Microbiology- Leaders Inspiring Networks and Knowledge (ASM-LINK) mentoring grant (\$5,000)

Jun 2012: **Key Personnel**, US Army Research Grant for shared instrumentation, \$191,091

May 2009 – Aug 2011: **Early Stage Investigator**, NIH Diversity Supplement to R01 #NS040449, summer research support at the University of Missouri-Columbia, \$131,073

Awarded Intramural Grants to Support Research and Enrichment Endeavors

Mar 2018: **Principal Investigator**, Professional Development Mini-grant, Barry University, \$900

Mar 2017: **Principal Investigator**, Research Mini-grant, Barry University, \$730

Nov 2012: **Principal Investigator**, Research Mini-grant, Barry University, \$500

Jul 2011 – Jun 2013: **Principal Investigator**, Faculty Incentive Grant, Barry University, \$3,850

2010: **Principal Investigator**, Research Mini-grant, Barry University, \$500

Additional Grants Submitted to Support Research

Mar 2018: **Co-Principal Investigator**, NSF Scholarships in Science, Technology, Engineering, and Mathematics Program (\$650,000; not funded)

Mar 2017: **Principal Investigator**, NIH R25 Summer Research Experiences Grant, National Institute of Child Health and Human Development (\$321,978; not funded)

Jan 2015: **Principal Investigator**, NSF Major Research Instrumentation Grant (\$151,000; not funded)

Sept 2014: **Principal Investigator**, NIH R15 Academic Research Enhancement Award (AREA) Grant, National Institute of Child Health and Human Development (\$300,000; not funded)

Feb 2013: **Principal Investigator**, NIH Academic Research Enhancement Award (AREA) Grant, National Institute on Alcohol and Alcoholism (\$300,000; not funded)

Feb 2011: **Principal Investigator**, NIH AREA Grant, National Institute on Neurological Disorders and Stroke (\$300,000; not funded)

TRAINING FELLOWSHIPS

Oct – Dec 2015: Science Communication Fellow, Frost Science Museum, Miami, FL
Apr 2004 – 2006: National Institutes of Health (NIH) Post-doctoral Training Grant # NS007459-05,
Miami Project to Cure Paralysis, University of Miami Miller School of Medicine
Aug – Dec 2003: NIH Pre-doctoral Training Grant # GM08396, University of Missouri-Columbia
Aug 2002 – July 2004: Society for Neuroscience Minority Travel Fellowship
May 1999 – Aug 2003: National Science Foundation/Alliance for Graduate Education and the
Professoriate (NSF/AGEP) Pre-doctoral Fellowship, University of Missouri
Aug 1998 – May 1999: Thurgood Marshall Pre-doctoral Fellowship, University of Missouri Sept 1996
– July 1997: NIH/ Minority Biomedical Research Support (MBRS), Barry University
June – Aug 1996: NIH/Minority International Research Training, Centro Nacional de la Patagonia,
Argentina
Sept 1995 – May 1996: NIH/MBRS, Barry University
May 1995 – July 1995: NIH/MBRS Enrichment, Whitney Marine Laboratory, University of Florida

PROFESSIONAL DEVELOPMENT FOR PEDAGOGICAL ENHANCEMENT

Off-Campus Professional Development

Nov 14 – 16, 2019: *Innovating for Equity*, National Learning Communities Conference, Indianapolis, IN
Mar 26 – 27, 2018: *Anatomy in Clay Professional Development Workshop*, McDonough, GA
Aug 19 – 20, 2015: National Science Foundation *iPlant Genomics in Education Workshop*, Fort Myers,
FL
Apr 30 – May 9, 2014: *Short Course on Analytical and Quantitative Light Microscopy*, Marine Biological
Laboratory, Woods Hole, MA
Feb 15, 2013: *Transforming Undergraduate Education*, American Association for the Advancement
of Science (AAAS), Boston, MA
May 31 – June 1, 2012: *Why We Can't Wait: Conference to Remedy Health Disparities in Genomic
Medicine*, Miami, FL
May 7 – 9, 2012: Sponsor-funded participant, *NIGMS Grant-writing Workshop*, University of
Kentucky
July 2011: Participant, *Experiments and Models for Teaching Undergraduate Neuroscience
Curriculum Development Workshop*, University of Missouri-Columbia, Columbia, MO
Mar 24 – 26, 2011: *Engaged STEM Learning: Implementing Interdisciplinary STEM Programs*,
Miami, FL
Aug 1 – 6, 2010: Sponsor-funded participant, *Summer Workshop in Genomics*, National Human
Genome Research Institute, Bethesda, MD
Apr 19 – 20, 2010: Sponsor-funded participant, *Grant Writing Workshop for Diversity Investigators*,
National Institute for Neurological Disorders, Rockville, MD
Jan 4 – 9, 2010: *Quantitative Biology Workshop*, Massachusetts Institute of Technology, Boston, MA
Mar 3 – 4, 2008: *NINDS Professional Development Workshop for Diversity Investigators*, Chevy
Chase, MD

On-Campus Professional Development

Dec 14, 2021: Faculty and Staff Professional Development Conference: *Cultivating Belonging at*

Barry through Inclusive Excellence (virtual), Barry University, Miami Shores, FL
Jun 28 – 30, 2021: CyVerse 3-day online workshop: *Center for Genome & Metagenome Studies 2021: Getting started with R and CyVerse*
Jan 29, 2021: NSF Listening Session on Online STEM Education: *Transforming the Organization of STEM Learning* (virtual)
Feb 1, 2019: CyVerse Webinar: RNA-Seq in the Classroom with Kallisto and Sleuth Jun 19, 2018: Qiagen Webinar: *The Truth About RNA Sequencing*
Jun 19, 2018: Association of American Colleges & Universities Webinar: *Teaching Techniques to Improve Learning and Ensure Classroom Success*
Sept 15, 2017: SimBio Webinar: *Understanding Experimental Design*
August 24, 2017: Adobe® Connect training, Division of Information Technology
Nov 11, 2016: ICB Trubook Webinars: 1) *Math Modeling in Integrating Concepts in Biology*; 2) *Teaching Students to Think Like Scientists*
Sept 7, 2016: Adobe® Connect training, Division of Information Technology
Aug 28, 2016: SoftChalk® training, Division of Information Technology
Aug 14, 2015: McGraw-Hill fall 2015 Implementation Summit for Physical and Life Sciences Webinars: *SmartBook and Adaptive Reading*: 1) *How to Increase Student Engagement with Course Content*; 2) *Making it Count: Digital Tools for Today's Students*; 3) *Using Smart Labs*
June 16 – 19, 2015: Microsoft® Certification training, Division of Information Technology Nov 21, 2014; July 20, 2015: Canvas training, Division of Information Technology
June 9, 2014: Excel® Complex Formulas training, Division of Information Technology Feb 7, 2014: Prezi® training, Division of Information Technology
Oct 12, 2012: *In Search of Excellence*, Barry Cares Professional Development Conference, Barry University

PROFESSIONAL SERVICE

Dec 2022 – present: **Member**, Conference Planning Committee, Life Sciences South Florida
Dec 2021: **Book Reviewer** for the *International Journal of Research on Service-Learning and Community Engagement*, volume 9, issue 1 (2021): *Service-Learning to Advance Access & Success: Bridging Institutional and Community Capacity* (2018); editors: Travis T. York, Alan S. Tinkler, and Barri E. Tinkler.
<https://ijrslce.scholasticahq.com/article/31320-creating-transformative-service-learning-partnerships-as-a-force-for-change-in-higher-education>
Nov 2021: **Lead Judge**, Cell Biology, the 2021 Sigma Xi Annual Meeting and Student Research Conference, Nov 4 – 7, 2021 [Virtual Conference]
Mar 2020: **Interviewer**, 2020 Gates Scholarship Finalists
Jan 2020: **Manuscript Reviewer**, *Journal of Neuroscience Methods*
Aug – Sept 2019: **Abstract Reviewer**, 2019 Sigma Xi Annual Meeting and Student Research Conference, Madison, WI
Oct 2018: **Session Chair**, 2018 Sigma Xi Annual Meeting and Student Research Conference, Burlingame, CA
Aug – Sept 2018: **Abstract Reviewer**, 2018 Sigma Xi Annual Meeting and Student Research Conference, Burlingame, CA
Mar 2018 – Oct 2018: **Conference Planning Committee**, Sigma Xi, The Scientific Research Society Annual Meeting, San Francisco, CA, Oct 25 – 28, 2018
Jan 2018 – present: **Scholarship Application Reviewer**, Gates Scholarship (formerly Gates Millennium Scholarship)

Nov 2017 – present: **Member**, Grants-in-Aid of Research Committee, Sigma Xi, The Scientific Research Honor Society, Raleigh, NC
June 2017: **Manuscript Reviewer**, *Journal of Neuroscience Methods*
April 2017 – present: **President**, Barry University Chapter, Sigma Xi, The Scientific Research Honor Society
Feb 2015 – 2019: **Volunteer Reviewer**, Membership and Qualifications Committee, Sigma Xi, The Scientific Research Honor Society
Feb 2015: **Grant Proposal Reviewer**, Science and Technology Centers Integrative Partnerships Pre-proposals, National Science Foundation, Arlington, VA
Jan 2015: **Chapter Reviewer**, *Life*, introductory biology textbook (publisher, Sinauer Press) May, July 2014: **Manuscript Reviewer**, *BioMed Central Review Notes*
Apr 2014 – present: **Grant Reviewer**, Grants-in-Aid of Research, Sigma Xi, The Scientific Research Honor Society, Raleigh, NC
Mar 2014: **Presentation Judge**, Sigma Xi, The Scientific Research Honor Society Student Research Showcase (online)
Nov 2013: **Neuroscience Session Co-chair**, Annual Biomedical Research Conference for Minority Students, Nashville, TN
Mar 2013: **Grant Pre-proposal Reviewer**, National Science Foundation, Arlington, VA
Oct 2012: **Plenary Session Co-moderator**, Mini-Conference on Power & Ethics, Barry University
Mar 2012: **Neuroscience Session Chair**, National Conference on Undergraduate Research, Ogden, UT
Feb 2012 – present: **Member**, Barry University Chapter, Sigma Xi Research Honor Society Membership and Qualifications Committee
Dec 2011: **Reviewer**, one chapter for the 4th edition of *Biological Science* (publisher, Benjamin Cummings/Pearson)
Aug 2011 – Mar 2012: **Reviewer** and **End-of Chapter Question Author** for four chapters in the 7th edition of *Molecular Cell Biology* (publisher, WH Freeman and Company)
Feb 2011, 2013: **Presentation Judge**, American Association for the Advancement of Science Annual Meeting.
Nov 2010: **Neuroscience Session Co-chair**, Annual Biomedical Research Conference for Minority Students, Charlotte, NC
Aug 2009 – present: **Member**, MBRS advisory committee, Barry University
Oct/Nov 2008 – 2015: **Abstract Reviewer** and **Presentation Judge**, Annual Biomedical Research Conference for Minority Students

UNIVERSITY-WIDE CONTRIBUTIONS

Aug 2020 – May 2023: **Co-Chair**, Academic Affairs Committee of the Faculty Senate
Aug 2020 – May 2023: **Member**, Undergraduate Council
Apr 2020 – present: **Member**, Alumni Board of Directors, Alumni of Tomorrow Endowed Scholarship Committee
Jan 2020 – present: **Member**, Alumni Board of Directors, Barry University
Feb 2019 – February 2021: **Member**, Department of Biology Scholarship Review Committee
Dec 2018 – present: **Chair**, Center for Community Service Initiatives (CCSI) Community Engagement Awards Committee
Aug 2018 – May 2022: **Member**, Mission Integration Council
Dec 2017 – Dec 2018: **Co-Chair**, Center for Community Service Initiatives (CCSI) Community Engagement Awards Committee
Aug 2017 – Aug 2018: **Member**, Undergraduate Council

- Review of new course proposals for compliance with SACS requirements and alignment with the mission of the university
 - Academic program reviews and prioritization
- Aug 2010 – May 2012; Aug 2014 – Aug 2018: **Executive Committee Member**, Faculty Senate
- Advisory body for the Senate Chair
 - Along with the Senate Chair, this body serves as a liaison for dialogue on key issues experienced by faculty
- Aug 2014 – July 2017: **Chair**, Faculty Handbook Committee, Faculty Senate
- Aug 2014 – July 2017: **Senator**, Faculty Senate
- Oct 2012 – Aug 2014: **Arts & Sciences Representative**, Faculty Course Exchange Aug 2012 – Oct 2014: **Member**, General Education and Curriculum Committee
- Review of general education course proposals for compliance with SACS requirements related to learning outcomes and assessments as well as alignment with the mission of the university
- Apr 2012 – Aug 2016: **Member**, Institutional Animal Care and Use Committee
- Nov 2010 – Dec 2011: **Founding Chair**, Master's Program Exploratory Committee, Dept. of Biology
- Upon noting that many graduates were unsure of a career path upon graduation, I established this committee which subsequently:
- Performed market analysis and surveyed alumni to gauge interest in the establishment of a master's program in biology to address the educational needs of individuals who were either a) interested in teaching in the K-12 system, or b) wished to better prepare themselves to ultimately pursue doctoral studies in the life sciences.
 - There was a positive response from our alumni but the university decided not to pursue the establishment of this new degree program at that time.
- Aug 2010 – May 2012: **Secretary**, Faculty Senate
- Aug 2009 – Aug 2010: **Chair**, Faculty Handbook Committee, Faculty Senate
- Aug 2009 – May 2012: **Senator**, Faculty Senate
- Oct 2008 – May 2009: **Arts & Sciences Representative**, Faculty Welfare Committee

SCHOLARSHIP

Guest Speaker Invitations

- Mar 4, 2023: *How Creativity Shapes Our World View*, Guest Lecturer, Honors Program HUM 300, Barry University, Miami Shores, FL
- Mar 1, 2022: *When Villains Become Saviors: A Climate Change Discussion*, Guest Lecturer, Honors Program HUM 300, Barry University, Miami Shores, FL
- Mar 18, 2021: *Why do some believe in science and others do not? Science, politics, and transparency*, Guest Lecturer, Honors Program HUM 300, Barry University, Miami Shores, FL
- Mar 12, 2020: *[Im]migration: A Fight for Survival*, Guest Lecturer, Honors Program HUM 300, Barry University, Miami Shores, FL
- Mar 21, 2019: *Perspectives on Health & Well-being: A Human Right or Privilege?* Guest Lecturer, Honors Program HUM 300, Barry University, Miami Shores, FL
- Mar 15, 2018: *The Effect of Poverty on Health*, Guest Lecturer, Honors Program HUM 300, Barry University, Miami Shores, FL
- Jul 13, 2017: *Tales of Nervous System Development in Zebrafish*, University of Florida, Whitney Marine Laboratory, St. Augustine, FL
- Mar 25, 2015: *The Cs of Success*, Keynote Speaker, Sigma Xi Scientific Research Honor Society Induction Ceremony, Barry University Chapter, Miami Shores, FL
- Mar 12, 2015: *Implementation of new technologies – do the benefits always outweigh the costs?*

Guest Lecturer, Honors Program HUM 300, Barry University, Miami Shores, FL Feb 13, 2014: *Disease Diagnosis in the Digital Age*, Guest Lecturer, Honors Program HUM 300, Barry University, Miami Shores, FL
Aug 26, 2013: *The Effect of Embryonic Alcohol Exposure on Zebrafish Development*, University of Miami, Coral Gables, FL

Ongoing Research Projects (2008 – present)

1. Mechanisms Underlying Vertebrate Nervous System Patterning
 - *in vivo* morpholino screens to elucidate the genetic basis for vertebrate nervous system patterning
 - Follow-up analysis with RNA rescue, in situ hybridization to examine hindbrain patterning via rhombomere-specific gene expression
2. Cellular and Molecular Analysis of Zebrafish Following Embryonic Ethanol Exposure
 - Physiological responses to exposure: heart rate, blood flow, etc.
 - A potential paternal role?
3. Epigenetic Analysis of Genes in the Nervous System Following Embryonic Ethanol Exposure
 - Examination of Genetic regulation via DNA methylation embryonic ethanol exposure
4. Effects of Embryonic Ethanol Exposure on Learning and Memory
 - Behavioral testing in juvenile and adult fish following embryonic ethanol exposure.
5. Development of a Zebrafish Karyotyping Model of Chromosomal Abnormalities
 - Correlation of zebrafish chromosomal abnormalities to human chromosomal abnormalities.
6. Changes in Gene Expression in Response to Teratogen Exposure
 - RNA sequencing analysis to compare gene expression profiles following toxin exposure.
7. Effects of Perfluoroalkyl Substance (PFAS) on Embryogenesis and Fertility
 - Physiological responses to exposure: heart rate, blood flow, etc.
 - Potential transgenerational effects
8. Behavioral Effects of Food Dye Consumption

Peer-Reviewed Journal Publications

1. **S. Bingham**, V. Sittaramane, O. Mapp, S. Patil, V. Prince, A. Chandrasekhar. (2010). Multiple mechanisms mediate motor neuron migration in the zebrafish hindbrain. *Developmental Neurobiology*, 70(2): 87–99.
2. **S. Bingham**, G. Toussaint, A. Chandrasekhar. (2005). Neuronal development and migration in zebrafish embryo explants. *Journal of Neuroscience Methods*, 149: 42–49.
3. **S. Bingham**, L. Mudd, T. Lopez, J. Montague. (2004). Effects of ethanol on cultured embryonic neurons from the cerebral cortex of the rat. *Alcohol*, 32: 129–135.
4. **S. Bingham**, S. Chaudhari, G. Vanderlaan, M. Itoh, A. Chitnis, A. Chandrasekhar. (2003). The neurogenic phenotype of zebrafish *mind bomb* mutants leads to severe patterning defects. *Developmental Dynamics*, 228: 451–463.

5. J. Jessen, J. Topczewski, **S. Bingham**, D. Sepich, F. Marlow, A. Chandrasekhar, L. Solnica-Krezel. (2002). Zebrafish Trilobite reveals new roles for Strabismus in gastrulation and neuronal movements. *Nature Cell Biology*, 4: 610–615.
6. **S. Bingham**, A. Nasevicius, S. Ekker, A. Chandrasekhar. (2001). Sonic Hedgehog and Tiggy Winkle Hedgehog cooperatively induce zebrafish branchiomotor neurons. *Genesis*, 30: 170–174.

Research Presentations and Abstract Publications with Undergraduate Student Co-Authors

* = collaboration with Department of Biology colleagues; ** = collaboration with Department of Biology and College of Nursing and Health Sciences colleagues; *** = collaboration with Department of Math and Computer Science colleague

1. F. Herrera-Carreón, Z. Cange, **S. Bingham**. The Effect of Ethanol on Embryogenesis, Neuronal development, and Morphological differences in *Danio Rerio* and *Caenorhabditis*. Presented at the 15th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 21, 2023.
2. V. Villegas and S. Bingham. Behavioral Effects of Food Dyes in Juveniles. Presented at the 15th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 21, 2023.
3. C. Burgos, G. Regalado, K. Edwards, and **S. Bingham**, An Investigation of Metabolic Responses to Glucose Overconsumption. Presented at the 15th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 21, 2023.
4. T. Checkley and **S. Bingham**. An investigation of potential correlations between vaccine safety profiles and recipient characteristics/pre-existing conditions. Presented at the 13th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 9, 2021.
5. J. Gillard and **S. Bingham**. An examination of the correlation between Sars-cov-2 infection and mortality rates in a developed vs. developing nation. Presented at the 13th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 9, 2021.
6. **S. Bingham**, A. Gallagher, A. Flores, J. Trinidad, V. Arboleda, J. de Almeida Rego, D. Villada. Genomic Analysis Reveals Gene Clusters Responsive to Embryonic Ethanol Exposure. Presented at RECOMB-CG Comparative Genomics 2018, Quebec, Canada, October 9 – 12, 2018.
7. **S. Bingham**, A. Gallagher, A. Flores, J. Trinidad, V. Arboleda, J. de Almeida Rego, D. Villada. An RNA Sequencing Approach to Understanding the Genetic Influences on Fetal Alcohol Syndrome. Presented at the 2018 FASEB Annual Meeting, San Diego CA, April 21–25, 2018.
8. A. Gallagher, V. Arboleda, A. Flores, J. Trinidad, **S. Bingham**. The Effect of Embryonic Ethanol Exposure on the Expression of TyrP1 and CENPF. Presented at the 10th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 6, 2018. (*Biology presentation award*)
9. A. Tapia, A. Wallace, G. Alvarez, J. Martinez, S. Rodriguez, **S. Bingham**. Embryonic Ethanol Exposure Negatively Impacts Cardiac Contractility and Output. Presented at the 10th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 6, 2018. (*Biology presentation award*)
10. D. Villada, J. de Almeida Rego, A. Gallagher, V. Arboleda, A. Flores, J. Trinidad, **S. Bingham**. An RNA Sequencing Approach to Understanding the Genetic Influences on Fetal Alcohol Syndrome. Presented at the 10th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 6, 2018.
11. V. Etienne, S. Smith-Cappa, **S. Bingham**. Does embryonic alcohol exposure affect neurogenesis in the zebrafish brain? Presented at the 9th Annual S.T.E.M. Symposium, Barry University, Miami, FL,

April 12, 2017.

12. A. Flores, J. Trinidad, **S. Bingham**. An RNA-Sequencing Approach to Studying the Molecular Mechanisms Underlying Fetal Alcohol Spectrum Disorders. Presented at the 9th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 12, 2017.
13. B. Telusma, **S. Bingham**, G. Packert, P. Lin, T Petrino. Synthesis of digoxigenin-labeled RNA probes for *in situ* characterization of *Polycomb 2 (cbx4)* expression pattern in zebrafish embryos. Presented at the 9th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 12, 2017.**
14. B. Bent, S. Kingston, J. Smith, R. Brango, A. Davila, A. Lyn-Cook, **S. Bingham**. The Methylation Response to Ethanol Exposure in the Zebrafish Embryo. Presented at the 10th Southeast Florida Cell Science Undergraduate Symposium, St. Thomas University, Miami, FL, April 25, 2015.
15. S. Kingston, J. Smith, B. Bent, R. Brango, A. Davila, A. Lyn-Cook, **S. Bingham**. The methylation response to ethanol exposure in the zebrafish embryo. Presented at the 7th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 1, 2015.
16. B. Maddox, N. Izaguirre, E. Nguyen, G. Toro, **S. Bingham**. Spatial and Temporal Expression of the Glycoprotein Ependymin in the Zebrafish Embryo. Presented at the 7th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 1, 2015.
17. P. Nwokoye, J. Conley, M. Ruiz, S. Kingston, M. Carper, B. Maddox, K. Hills, R. Brango, N. Izaguirre, B. Telusma, C. Glen, T. Petrino-Lin, **S. Bingham**. Examining the effects of paternal ethanol exposure on zebrafish development. Presented at the 7th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 1, 2015. (*Honorable mention poster award*)
18. M. Ruiz, N. Shtupak, C. Dampman, K. Languaigne, **S. Bingham**. A zebrafish Model for studying chromosomal disorders. Presented at the 7th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 1, 2015.
19. B. Telusma, C. Glen, **S. Bingham**, G. Packert, P. Lin, T Petrino-Lin. In vitro transcription of probes for the *in situ* detection of Pc2 Polycomb (*cbx4*) expression in zebrafish (*Danio rerio*) embryos. Presented at the 7th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 1, 2015.**
20. M. Ruiz, P. Nwokoye, J. Conley, S. Kingston, M. Carper, B. Maddox, K. Hills, R. Brango,
 - a. N. Izaguirre, B. Telusma, C. Glen, T. Petrino-Lin, **S. Bingham**. Presented at the Fifth Annual Florida Undergraduate Research Conference, Tampa, FL, February 26 – 27, 2016.
21. R. Brango, S. Kingston, A. Davila, A. Lyn-Cook, L. Mudd, **S. Bingham**. An Examination of Hypermethylation in Response to Ethanol Exposure. Presented at the Annual Biomedical Conference for Minority Students, San Antonio, TX, November 12 – 15, 2014. (*Developmental Biology category poster award*)
22. R. Brango, S. Kingston, A. Davila, A. Lyn-Cook, L. Mudd, **S. Bingham**. An analysis of the methylation response following ethanol exposure. Presented at the 9th Southeast Florida Cell Science Undergraduate Research Symposium, St. Thomas University, Miami, FL, April 26, 2014. (*3rd place poster award*)
23. M. Carper, P. Nwokoye, **S. Bingham**. The effects of embryonic ethanol exposure on cardiac function. Presented at the 9th Southeast Florida Cell Science Undergraduate Research Symposium, St. Thomas University, Miami, FL, April 26, 2014.
24. K. Languaigne, M. Ruiz, N. Shtupak, C. Xavier, C. Dampman, **S. Bingham**. Karyotyping to

- investigate nondisjunction in the zebrafish model system. Presented at the 9th Southeast Florida Cell Science Undergraduate Research Symposium, St. Thomas University, Miami, FL, April 26, 2014.
25. S. Kingston, R. Brango, A. Davila, A. Lyn-Cook, L. Mudd, **S. Bingham**. An analysis of the methylation response following ethanol exposure. Presented at the 6th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 16, 2014. (*poster award*)
 26. P. Nwokoye, M. Carper, **S. Bingham**. The effects of embryonic ethanol exposure on cardiac function. Presented at the 6th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 16, 2014.
 27. M. Ruiz, K. Languigne, N. Schtupak, C. Xavier, C. Dampman, **S. Bingham**. Karyotyping to investigate nondisjunction in the zebrafish model system. Presented at the 6th Annual
a. S.T.E.M. Symposium, Barry University, Miami, FL, April 16, 2014.
 28. B. Telusma, C. Glen, **S. Bingham**, G. Packert, Y-W. Lin, Teresa Petrino-Lin. *Polycomb 2 (cbx4)* expression patterns during zebrafish (*Danio rerio*) development: in situ hybridization study. Presented at the 6th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 16, 2014.*
 29. V. Williams, S.Chan, **S. Bingham**, Y-W Lin, T. Petrino-Lin. A knockdown approach to studying *Pcl* gene function. Presented at the 6th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 16, 2014.*
 30. A. Batres, C. Xavier, E. Nguyen, G. Toro, and **S. Bingham**. A developmental analysis of the glycoprotein Ependymin. Presented at the 8th Annual Southeast Florida Undergraduate Research Symposium, St Thomas University, Miami, FL, April 20, 2013.
 31. A. Batres, C. Xavier, E. Nguyen, G. Toro, and **S. Bingham**. A developmental analysis of the glycoprotein Ependymin. Presented at the 5th Annual S.T.E.M. Symposium, Barry University, Miami, FL, March 27, 2013. (*Honorable mention poster award*)
 32. M. Mildor, P. Ezeamama, N. Delva, V. Sittaramane, S. Ekker, A. Chandrasekhar, and **S. Bingham**. A developmental analysis of Palmitoyl-Protein Thioesterase expression in the zebrafish embryo. Presented at the 5th Annual S.T.E.M. Symposium, Barry University, Miami, March 27, 2013.
 33. A. Davila, D. Ruffin, A. Lyn-Cook, L. Mudd, **S. Bingham**. Investigation of DNA methylation in response to ethanol exposure. Presented at the 5th Annual S.T.E.M. Symposium, Barry University, Miami, FL, March 27, 2013.*
 34. T. Torres-Delgado, M. Toro, S. Richardson, and **S. Bingham**. An investigation of the effects of embryonic ethanol exposure. Presented at the 5th Annual S.T.E.M. Symposium, Barry University, Miami, FL, March 27, 2013.
 35. 6. A. Davila, D. Ruffin, A. Lyn-Cook, L. Mudd, **S. Bingham**. Investigation of DNA Methylation in Response to Ethanol Exposure. Presented at the Florida Academy of Sciences Annual Meeting, Barry University, March 8 – 9, 2013.*
 36. M. Mildor, P. Ezeamama, **S. Bingham**. A Developmental Analysis of Palmitoyl-Protein Thioesterase Expression in the Zebrafish Embryo. Presented at the Third Annual Florida Undergraduate Research Conference, Gainesville, FL, February 22 – 23, 2013.
 37. D. Ruffin, A. Davila, A. Lyn-Cook, L. Mudd, **S. Bingham**. Investigation of DNA methylation in Response to Ethanol Exposure. Presented at the Third Annual Florida Undergraduate Research Conference, Gainesville, FL, February 22 – 23, 2013.*

38. K. Taveras, S. Chan, **S. Bingham**, P. Lin, T. Petrino. A Morpholino-based Investigation of *Polycomb* Gene Function. Presented at the Third Annual Florida Undergraduate Research Conference, Gainesville, FL, February 22 – 23, 2013.*
39. S. Richardson, M. Toro, D. Brierre, N. Delva, C. Lynch, A. Nicholson, **S. Bingham**. The Effect of Embryonic Ethanol Exposure on Zebrafish Development. Presented at the Annual Biomedical Research Conference for Minority Students, San Juan, CA, November 7 – 10, 2012. (*Neuroscience category poster award*)
40. N. Delva, G. Toro, E. Nguyen, V. Sittaramane, S. Ekker, A. Chandrashekar, **S. Bingham**. A Zebrafish Model For Neuronal Ceroid Lipofuscinoses: A Palmitoyl-Protein Thioesterase-2 Knockdown Approach. Presented at the 7th Southeast Florida Cell Science Undergraduate Research Symposium, St. Thomas University, Miami, FL, April 14, 2012.
41. N. Delva, G. Toro, E. Nguyen, V. Sittaramane, S. Ekker, A. Chandrashekar, **S. Bingham**. A Zebrafish Model For Neuronal Ceroid Lipofuscinoses: A Palmitoyl-Protein Thioesterase-2 Knockdown Approach. Presented at the 4th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 4, 2012.
42. A. Davila, A. Lyn-Cook, L. Mudd, **S. Bingham**. An investigation of the methylation response following ethanol exposure in zebrafish. Presented at the 4th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 4, 2012. (*1st place poster award*)
43. S. Chan, **S. Bingham**, G. Packert, P. Y-W. Lin, T. Petrino. The *in situ* hybridization of the *Polycomb* gene in developing zebrafish (*Danio rerio*) embryos. Presented at the 4th Annual
 - a. S.T.E.M. Symposium, Barry University, Miami, FL, April 4, 2012.**
44. N. Delva, G. Toro, E. Nguyen, V. Sittaramane, S. Ekker, A. Chandrashekar, **S. Bingham**. A Zebrafish Model For Neuronal Ceroid Lipofuscinoses: A Palmitoyl-Protein Thioesterase-2 Knockdown Approach. Presented at the 4th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 4, 2012.
45. A. Davila, A. Lyn-Cook, L. Mudd, **S. Bingham**. An investigation of the methylation response following ethanol exposure in zebrafish. Presented at the 4th Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 4, 2012. (*1st place poster award*)
46. S. Chan, **S. Bingham**, G. Packert, P. Y-W. Lin, T. Petrino. The *in situ* hybridization of the *Polycomb* gene in developing zebrafish (*Danio rerio*) embryos. Presented at the 4th Annual
 - a. S.T.E.M. Symposium, Barry University, Miami, FL, April 4, 2012.**
47. N. Delva, G. Toro, E. Nguyen, V. Sittaramane, S. Ekker, A. Chandrashekar, **S. Bingham**. A Zebrafish Model for Neuronal Ceroid Lipofuscinoses: A Palmitoyl-Protein Thioesterase-2 Knockdown Approach. Presented at the National Conference on Undergraduate Research, Ogden, UT, March 29 – 31, 2012.
48. S. Chan, **S. Bingham**, G. Packert, P. Y-W. Lin, T. Petrino. The *in situ* Hybridization of the *Polycomb* Gene in Developing Zebrafish (*Danio rerio*) Embryos. Presented at the National Conference on Undergraduate Research, Ogden, UT, March 29 – 31, 2012.**
49. E. Nguyen, **S. Bingham**, G. Toro, J. Colon, G. Johnson, S. Ekker, and A. Chandrasekhar. A New Role for the Glycoprotein Ependymin in Regulating Vertebrate Nervous System Patterning? Presented at the ABRCMS National Meeting, St. Louis, MO, November 9 – 12, 2011.

50. N. Delva, G. Toro, E. Nguyen, V. Sittaramane, S. Ekker, A. Chandrasekhar and **S. Bingham**. A Zebrafish Model for Neuronal Ceroid Lipofuscinoses: A Palmitoyl-Protein Thioesterase-2 Knockdown Approach. Presented at the Midwest Regional Zebrafish Conference and Zebrafish and Education Summit, Mayo Clinic, Rochester, MN, August 3 – 6, 2011.
51. N. Delva, G. Toro, E. Nguyen, V. Sittaramane, S. Ekker, **S. Bingham** and A. Chandrasekhar. Analysis of PPT-2 Function in zebrafish- A model for Neuronal Ceroid Lipofuscinoses? Presented at the 22nd Annual Summer Undergraduate Research & Creative Achievements Forum, University of Missouri, Columbia, MO, July 28th 2011.
52. E. Nguyen, G. Toro, J. Colón, G. Johnson, S. Ekker, A. Chandrasekhar, and **S. Bingham**. A new role for the glycoprotein ependymin in regulating vertebrae nervous system patterning? Presented at the 3rd Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 20, 2011.
53. G. Toro, E. Nguyen, S. Ekker, A. Chandrasekhar, and **S. Bingham**. A morpholino-based screen to identify genes involved in vertebrate nervous system patterning. Presented at the 3rd Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 20, 2011. (*Honorable mention poster award*)
54. A. Nicholson, N. Delva, C. Lynch, L. Sinaise, J. Cadet, K. George, and **S. Bingham**. Effects of embryonic ethanol exposure on zebrafish cranial motor neuron development. Presented at the 3rd Annual S.T.E.M. Symposium, Barry University, Miami, FL, April 20, 2011. (*1st place poster award*)
55. N.C. Delva, C. Lynch, A. Nicholson, L. Sinaise, J. Cadet, K. George, **S. Bingham**. Effects of embryonic ethanol exposure on zebrafish cranial motor neuron development. Presented at the 6th Southeast Florida Cell Science Undergraduate Research Symposium, St. Thomas University, Miami, FL, April 16, 2011.
56. G. Toro, E. Nguyen, S. Ekker, A. Chandrasekhar, and S. Bingham. A morpholino-based screen to identify genes involved in vertebrate nervous system patterning. Presented at the 6th Southeast Florida Cell Science Undergraduate Research Symposium, St. Thomas University, Miami, FL, April 16, 2011. (*2nd place poster award*)
57. E. Nguyen, G. Toro, G. Johnson, S. Ekker, A. Chandrasekhar and **S. Bingham**. A new role for the glycoprotein ependymin in regulating vertebrate nervous system patterning. Presented at the 6th Southeast Florida Cell Science Undergraduate Research Symposium, St. Thomas University, Miami, FL, April 16, 2011.
58. J. A. Colón, G. C. Toro, E.M. Nguyen, G. Johnson, A. Chandrasekhar, and **S.M. Bingham**. An Investigation of the Role of the Glycoprotein Ependymin in Patterning the Vertebrate Nervous System. Presented at the 1st Annual Florida Statewide Student Research Symposium, University of North Florida, March 4 – 5, 2011.
59. N.C. Delva, C. Lynch, A. Nicholson, L. Sinaise, J. Cadet, and K. George, **S. Bingham**. Effects of Embryonic Ethanol Exposure on Zebrafish Cranial Motor Neuron Development. Presented at the 1st Annual Florida Statewide Student Research Symposium, University of North Florida, March 4 – 5, 2011.
60. M. Barreto, **S. Bingham**, J. Colon, T. Petrino, F. Redway, S. St Clair. Colloquia Session: Strategies for Successfully Navigating the Higher Education Pipeline. Presented at the 1st Florida Statewide Student Research Symposium, University of North Florida, March 4 – 5, 2011.

61. E. Nguyen, G. Toro, G. Johnson, S. Ekker, A. Chandrasekhar and **S. Bingham**. A New Role for the Glycoprotein Ependymin in Regulating Vertebrate Nervous System Patterning? Presented at the American Association for the Advancement of Science annual Meeting, Washington, DC, February 17 – 21, 2011.
62. G. Toro, E. Nguyen, S. Ekker, A. Chandrasekhar, and **S. Bingham**. A Morpholino-based Screen to Identify Genes Involved in Vertebrate Nervous System Patterning. Presented at the 10th Annual ABRCMS National Meeting, Charlotte, NC, November 10 – 13, 2010. (*Neuroscience category poster award*)
63. G. Toro, E. Nguyen, S. Ekker, A. Chandrasekhar, and **S. Bingham**. A morpholino-based screen to identify genes involved in vertebrate nervous system development. Presented at the 21st Annual Summer Undergraduate Research & Creative Achievements Forum, University of Missouri, Columbia, MO, July 29, 2010.
64. E. Nguyen, G. Toro, G. Johnson, S. Ekker, A. Chandrasekhar and **S. Bingham**. A new role for the glycoprotein ependymin in regulating vertebrate nervous system patterning. Presented at the 21st Annual Summer Undergraduate Research & Creative Achievements Forum University of Missouri, Columbia, MO, July 29, 2010.
65. G. Johnson, J. Colón, J. Cadet, S.C. Ekker, A. Chandrasekhar and **S. Bingham**. A reverse genetics approach to elucidating zebrafish nervous system development. Presented at the 5th Southeast Florida Cell Science Undergraduate Research Symposium, St. Thomas University, Miami, FL, April 23, 2010.
66. J. Colón, G. Johnson, J. Cadet, S.C Ekker, A. Chandrasekhar and **S. Bingham**. Investigating the role of ependymin in zebrafish nervous system development. Presented at the 5th Southeast Florida Cell Science Undergraduate Research Symposium, St. Thomas University, Miami, FL, April 23, 2010.
67. J. Cadet, L. Sinaise, C. Lynch, K. George, **S. Bingham**. Exposure to ethanol disrupts zebrafish cranial motor neuron development. Presented at the 5th Southeast Florida Cell Science Undergraduate Research Symposium, St. Thomas University, Miami, FL, April 23, 2010. (*Honorable mention poster award*)
68. F. Bertino, **S.M. Bingham**, C.H. Chuan. The Search for the musical genome: A history of the research and recent application of DNA-inspired music. Presented at the 2nd Annual S.T.E.M. Symposium, Barry University, March 26, 2010.***
69. G. Johnson, J. Colón, J. Cadet, S.C. Ekker, A. Chandrasekhar, and **S. Bingham**. A reverse genetics approach to elucidating zebrafish nervous system development, Presented at the 2nd Annual S.T.E.M. Symposium, Barry University, March 26, 2010.
70. J. Cadet, L. Sinaise, C. Lynch, K. George, **S. Bingham**. Exposure to ethanol disrupts zebrafish cranial motor neuron development, Presented at the 2nd Annual S.T.E.M. Symposium, Barry University, March 26, 2010.
71. J. Colón, G. Johnson, J. Cadet, S.C. Ekker, A. Chandrasekhar, **S. Bingham**. Investigation of the role of ependymin in zebrafish nervous system development, Presented at the 2nd Annual S.T.E.M. Symposium, Barry University, March 26, 2010.
72. G. Johnson, **S. Bingham**, S.C. Ekker, and A. Chandrasekhar. Identification of genes regulating zebrafish nervous system development. Presented at the 18th Annual Neuroscience Research Day,

University of Miami-Miller School of Medicine, Miami, FL November 20, 2009.

73. G. Johnson, **S. Bingham**, S. C. Ekker, and A. Chandrasekhar. A Morpholino Screen to Identify Genes Regulating Zebrafish Nervous System Development. Presented at ABRCMS National Meeting, Phoenix, AZ, November 4 – 7, 2009.
74. G. Johnson, **S. Bingham**, S.C. Ekker, and A. Chandrasekhar. A morpholino screen to identify genes regulating zebrafish nervous system development. Presented at the 20th Annual Summer Undergraduate Research & Creative Achievements Forum, University of Missouri, Columbia, MO, July 30th, 2009.
75. J. Colón, J. Cadet, G. Johnson, L. Sinaise, **S. Bingham**. Neuronal migration pathways in the zebrafish embryo. Presented at the 1st Annual S.T.E.M. Symposium, Barry University, April 3, 2009.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Mar 2010 – present: **Member**, Barry University Chapter, Sigma Xi, The Scientific Research Honor Society

Mar 2012 – 2014; 2018 – present: **Member**, American Association for the Advancement of Science