Heather N. Tinsley

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EDUCATION

Ph.D., Pharmacology and Toxicology (2010), University of Alabama at Birmingham School of Medicine, Birmingham, AL

B.S., Molecular Biology (2006), Auburn University College of Arts and Sciences, Auburn, AL

EXPERIENCE

Professor of Biology **2022-Present**
University of Montevallo, Montevallo, AL

- Teach courses in molecular and cellular biology, including BIO 100 Principles of Biology (non-majors), BIO 105 Introductory Biology I (majors), BIO 206 Genetics, BIO 307 Cell Biology, BIO 425 Molecular Biology, BIO 490 Senior Seminar in Biology, and BIO 551 Current Topics in Cell Biology
- Advise approximately 25 biology majors
- Perform research related to cell signaling during human lactation and breast cancer

Todd and Linda Strange Endowed Professor **2023-2026**
University of Montevallo, Montevallo, AL

- Developed and implemented programs aimed at improving student retention

Director, Malone Center for Excellence in Teaching **2017-2022**
University of Montevallo, Montevallo, AL

- Planned, organized, implemented, and assessed programs and activities that enhance teaching excellence, such as ongoing professional development workshops, training in online instruction, and new faculty orientation events
- Provided leadership for, evaluated, and supervised 4 professional staff members, 2 graduate assistants, and numerous student workers
- Managed Malone Center budgets, unit planning, and unit assessment

Associate Professor of Biology **2017-2022**
University of Montevallo, Montevallo, AL

Assistant Professor of Biology **2011-2017**
University of Montevallo, Montevallo, AL

Adjunct Instructor of Biology **2011**
Samford University, Birmingham, AL

Postdoctoral Research Fellow **2010-2011**
Piazza Lab, Drug Discovery Division, Southern Research Institute, Birmingham, AL

Graduate Research Assistant **2006-2010**
Department of Pharmacology and Toxicology, The University of Alabama at Birmingham, Birmingham, AL

PUBLICATIONS

Underlined names represent undergraduate student authors.

Refereed Journal Articles:

1. King, A.; Emery, T.M.; Reese, K.; **Tinsley, H.N.** (2025) Yeast gene of unknown function *YGL081W* is involved in DNA damage response. microPublication Biology. 10.17912/micropub.biology.001647. Available at https://www.micropublication.org/journals/biology/micropub-biology-001647.

2. **Tinsley, H.N.**; Mathew, B.; Chen, X.; Maxuitenko, Y.Y.; Li, N.; Lowe, W.M.; Whitt, J.D.; Zhang, W.; Gary, B.D.; Keeton, A.B.; Grizzle, W.E.; Grubbs, C.J.; Reynolds, R.C.; Piazza, G.A. (2023) Novel Non-Cyclooxygenase Inhibitory Derivative of Sulindac Inhibits Breast Cancer Cell Growth In Vitro and Reduces Mammary Tumorigenesis in Rats. Cancers 15: 646. Available at https://doi.org/10.3390/cancers15030646.

3. Abdel-Halim, M., **Tinsley, H.N.**, Keeton, A.B., Weam, M., Atta, N.H., Hammam, M.A., Hefnawy, A., Hartmann, R.W., Engel, M., Piazza, G.A., and Abadi, A.H. (2020) "Discovery of trisubstituted pyrazolines as a novel scaffold for the development of selective phosphodiesterase 5 inhibitors" *Bioorganic Chemistry* 104: 104322. Available at https://www.sciencedirect.com/science/article/pii/S0045206820316205.

4. **Tinsley, H.N.** (2020) "Online Adaptation of the Cell Engineer/Detective Lesson" Accepted *CourseSource* 7: 1-3. Available at https://qubeshub.org/community/groups/coursesource/publications?id=2690&v=1.

5. **Tinsley, H.N.** (2019) "Teaching Cell Structures through Games" *CourseSource* 6:1-6. Available at https://qubeshub.org/community/groups/coursesource/publications?id=2639&v=1.

6. Wood, K., Donnenwirth, R., Mills, K., and **Tinsley, H.N.** (2019) "Cyclic GMP signaling during human lactation and breast cancer: Implications for breast cancer prevention." *The Breast Journal* 25(4): 775-777.

7. **Tinsley, H. N.** (2016) "Ripped from the Headlines: Using Current Events and Deliberative Democracy to Improve Student Performance in Non-majors Biology Courses." *Journal of Microbiology and Biology Education* 17(3): 380-88.

8. Abdel-Rahman, H.M., Abdel-Aziz, M., **Tinsley, H.N.**, Gary, B.D., Canzoneri, J.C., Piazza, G.A. (2016) "Design and Synthesis of Substituted Pyridazinone-1-Acetylhydrazones as Novel Phosphodiesterase 4 Inhibitors." *Archiv der Pharmazie* 349(2): 104-11.

9. Windham, P.F., Rodriguez, P.S., Rivers, N.J., **Tinsley, H.N.** (2015) "PKGI mediates the growth inhibitory effects of cGMP signaling in human breast cancer cells independent of β-catenin." *Integrative Cancer Science and Therapeutics* 2(4): 185-91.

10. Windham, P.F., **Tinsley, H.N.** (2015) "cGMP signaling as a target for the prevention and treatment of breast cancer." *Seminars in Cancer Biology* 31: 106-10.

11. Sestero, C., **Tinsley, H.N.**, Ye, Z., Zhang, X., Graze, R., Kearley, M. (2014) "Using the Cell Engineer/Detective Approach to Explore Cell Structure and Function." *CourseSource* 1: 1-5. Available at https://qubeshub.org/community/groups/coursesource/publications?id=2515&v=1.

12. Fajardo, A.M., Piazza, G.A., **Tinsley, H.N.** (2014) "The role of cyclic nucleotide signaling pathways in cancer: targets for prevention and treatment." *Cancers* 6(1): 436-58.

13. Li, N., Xi, Y., **Tinsley, H.N.**, Gurpinar, E., Gary, B.D., Zhu, B., Li, Y., Chen, X., Keeton, A.B., Abadi, A.H., Moyer, M.P., Grizzle, W.E., Change, W.C., Clapper, M.L., Piazza, G.A. (2013) "Sulindac selectively

inhibits colon tumor cell growth by activating the cGMP/PKG pathway to suppress Wnt/β-catenin signaling." *Molecular Cancer Therapeutics* 12(9):1848-59.

14. Abadi, A.H., Hany, M.S., Elsharif, S.A., Eissa, A.A., Gary, B.D., **Tinsley, H.N.**, Piazza, G.A. (2013) "Modulating the cyclic guanosine monophosphate substrate selectivity of the phosphodiesterase 3 inhibitors by pyridine, pyrido[2,3-d]pyrimidine derivatives and their effects upon the growth of HT-29 cancer cell line." *Chemical and Pharmaceutical Bulletin* 61(4):405-10.

15. Whitt, J.D., Li, N., **Tinsley, H.N.**, Chen, X., Zhang, W., Li, Y., Abadi, A.H., Gary, B.D., Keeton, A.B., Grizzle, W.E., and Piazza, G.A. (2012) "A novel sulindac derivative that potently suppresses colon tumor cell growth by inhibiting cGMP phosphodiesterase and β-catenin transcriptional activity." *Cancer Prevention Research* 5(6): 822-33.

16. **Tinsley, H.N.** and Piazza, G.A. (2012) "Novel Therapeutics: Sulindac, Derivatives, and Phosphodiesterases." *Current Colorectal Cancer Reports* 8(4): 325-30.

17. Ahmed, N.S., Ali, A.H., El-Nashar, S.M., Gary, B.D., Fajardo, A.M., **Tinsley, H.N.**, Piazza, G.A., Negri, M., Abadi, A.H. (2012) "Exploring the PDE5 H-pocket by Ensemble Docking and Structure-based Design and Synthesis of Novel β-Carboline Derivatives." *European Journal of Medicinal Chemistry* 57:329-43.

18. Mohamed, H.A., Girgis, N.M.R., Wilcken, R., Bauer, M.R., **Tinsley, H.N.**, Gary, B.D., Piazza, G.A., Boekler, F.M., and Abadi, A.H. (2011) "Synthesis and Molecular Modeling of Novel tetrahydro-β-Carboline Derivatives with Phosphodiesterase 5 Inhibitory and Anticancer Properties." *Journal of Medicinal Chemistry* 54(2): 495-509.

19. **Tinsley, H.N.**, Gary, B.D., Keeton, A.B., Lu, W., Li, Y., and Piazza, G.A. (2011) "PDE5 inhibition by sulindac sulfide selectively induces apoptosis and attenuates oncogenic β-catenin mediated transcription in human breast tumor cells." *Cancer Prevention Research* 4(8):1275-84.

20. Abadi, A.H., Ibrahim, T.M., Lehmann, J., **Tinsley, H.N.**, Gary, B.D., and Piazza, G.A. (2010) "Discovery of Colon Tumor Cell Growth Inhibitory Agents through a Combinatorial Approach" *European Journal of Medicinal Chemistry* 45:90-7.

21. Abadi, A.H., Gary, B.D., **Tinsley, H.N.**, Piazza, G.A., and Abdel-Halim, M., (2010) "Synthesis, molecular modeling and biological evaluation of novel tadalafil analogues as phosphodiesterase 5 and colon tumor cell growth inhibitors, new stereochemical perspective." *European Journal of Medicinal Chemistry* 45:1278-86.

22. Piazza, G.A.., Keeton, A.B., **Tinsley H.N.**, Gary, B.D., Matthew, B., Whitt, J.D., Grizzle, W., Singh, R., and Reynolds, R. (2010) "NSAIDs: old drugs reveal new anticancer targets." *Pharmaceuticals* 3:1652-67.

23. **Tinsley, H.N.**, Gary, B.D., Thaiparambil, J., Li, N., Maxuitenko, Y.Y., Keeton, A.B., and Piazza, G.A. (2010) "Colon tumor cell growth inhibitory activity of sulindac sulfide and other NSAIDs involves PDE5 inhibition." *Cancer Prevention Research* 3(10):1303-13.

24. Eccleston, H.B., Andringa, K.K., Betancourt, A.M., King, A.L., Mantena, S.K., Swain, T.M., **Tinsley, H.N.**, Nolte, R.N., Nagy, T.R., Abrams, G.A., and Bailey, S.M. (2010) "Chronic exposure to high fat diet induces hepatic steatosis, impairs nitric oxide bioavailability, and modifies the mitochondrial proteome in mice." *Antioxidants and Redox Signaling* 15(2): 447-59.

25. Ahmed, N.S., Gary, B.D., Piazza, G.A., **Tinsley, H.N.**, Laufer, S., and Abadi, A.H. (2010) "A novel access to arylated and heteroarylated beta-carboline based PDE5 inhibitors." *Medicinal Chemistry* 6(6): 375-87.

26. Ahmed, N.S., Gary, B.D., **Tinsley, H.N.**, Piazza, G.A., Laufer, S., and Abadi, A.H. (2010) "Design, synthesis, and structure-activity relationship of functionalized tetrahydro-β-carboline derivatives as novel PDE5 inhibitors." *Archiv der Pharmazie* 344(3): 149-57.

27. Piazza, G.A.., Keeton, A.B., **Tinsley H.N.**, Gary, B.D., Whitt, J.D., Matthew, B., Coward, L., Gorman, G., L,i Y., Sani, B., Hobrath, J., Maxuitenko, Y., and Reynolds, R. (2009) "A Novel Sulindac Derivative That Does Not Inhibit Cyclooxygenases, but Inhibits Colon Tumor Cell Growth and Induces Apoptosis with Antitumor Activity." *Cancer Prevention Research* 2(6): 572-80.

28. Abadi, A.H., Ibrahim, T.M., Lehmann, J., **Tinsley, H.N.**, Gary, B.D., and Piazza, G.A. (2009) "Design, Synthesis and Biological Evaluation of Novel Pyridine Derivatives as Anticancer Agents and Phosphodiesterase 3 Inhibitors." *Journal of Bioorganic and Medicinal Chemistry*, 16: 5479-72.

29. Abadi, A. H., Abouel-Ella, D. A., Ahmed, N. S., Gary, B. D., Thaiparambil, J. T., **Tinsley, H. N.**, Keeton, A. B., and Piazza, G. A. (2009) "Synthesis of Novel Tadalafil Analogues and their Evaluation as Phosphodiesterase Inhibitors and Anticancer Agents." *Arzneimittel forschung/Drug research* 59:415-21.

30. **Tinsley, H.N.**, Gary, B.D., Keeton, A.B, Zhang, W., Abadi, A.H., Reynolds, R.C., Piazza, G.A. (2009) "Sulindac sulfide selectively inhibits growth and induces apoptosis of human breast tumor cells by PDE5 inhibition, elevation of cGMP, and activation of PKG" *Molecular Cancer Therapeutics* 8(12):3331-40.

31. Lu, W., **Tinsley H.N.**, Keeton A., Piazza G.A., and Li, Y. (2009) "Suppression of Wnt/Catenin signaling inhibits prostate cancer cell proliferation" *European Journal of Pharmacology* 602: 8-14.

Refereed Book Chapters:

1. **Tinsley, H.N.**, Eckelman, A., Chandler, E., Martin, C. (2019) The Role of Interdisciplinary Teaching in the Honors Curriculum: Insight from a Public Liberal Arts University. In: Harper, G. (ed) *Excellence, Innovation, and Ingenuity in Honors Education* (pp. 9-22). Newcastle, UK: Cambridge Scholars.

2. **Tinsley, H.N.**, Grizzle, W.E., Abadi, A.H., Keeton, A.B., Zhu, B., Xi, Y., and Piazza, G.A. (2013) New NSAID targets and derivatives for colorectal cancer prevention. In: Chan, A., Detering, E. (eds) *Prospects for Chemoprevention of Colorectal Neoplasia: Emerging Role of Anti-inflammatory Drugs* (pp. 105-120). Berlin: Springer.

Manuscripts Submitted or In Preparation:

1. Smith, R., Alagna, N., Cole, D., and **Tinsley, H.N.** "Impact of Storage on Biological Components of Human Breast Milk." Planned submission to *The Journal of Human Lactation Research*.

AWARDS AND HONORS

Todd and Linda Strange Endowed Professor (2023-2026), "Improving Student Retention and Success in Biology," $3,000 per year, University of Montevallo

Woman of Distinction in Research (2024), Montevallo branch of AAUW

Research and Creative Projects Grant (2023), "Creating New Tools to Study cGMP Signaling in Breast Cells," $2,000, University of Montevallo

Sabbatical (2023), "Bringing a Revolutionary Gene Editing Tool to UM," release from teaching spring 2023, University of Montevallo

Teaching Online Certification (2020), Quality Matters

University Scholar (2016-2017), University of Montevallo

Research and Creative Projects Grant (2015, 2016), "The Role of cGMP Signaling in Human Lactation and Breast Cancer Prevention," $2,000 per year, University of Montevallo

Course Development Grant (2015), "High Impact Practices for BIO 105 Introductory Biology I," $2,000, University of Montevallo

Pre-Tenured Faculty Summer Research Stipend (2015), "Characterization of cGMP Signaling in Human Breast Cancer," $5,000, University of Montevallo

Research and Creative Projects Grant (2014), "Characterization of cGMP Signaling in Human Breast Cancer," $2,000, University of Montevallo

Course Development Grant (2013), "Economics of Environmental Toxicology," $1,000, University of Montevallo

Susan G. Komen Travel Grants (2008, 2009, 2010, 2011, 2012, 2013, 2015), $999 per year, North Central Alabama Affiliate of Susan G. Komen for the Cure

William C. Bailey Award for Excellence in Cancer Prevention and Control Research (2009), University of Alabama at Birmingham Comprehensive Cancer Center

Outstanding Doctoral Student (2008), University of Alabama at Birmingham Department of Pharmacology and Toxicology

MEDIA APPEARANCES

I Am ASCB (October 17, 2022), American Society of Cell Biologists social media campaign, Rockville, MD; available at https://www.youtube.com/watch?v=lwBJCmg-UTo.

Let's Give a Kiss Goodbye to These 10 Pandemic-Endangered Practices (September 16, 2020), *The Edge*, Chronicle of Higher Education, Washington, D.C.; available at https://www.chronicle.com/newsletter/the-edge/2020-09-16

Shelby County Residents Vocal on Proposed Toll Bridge (March 5, 2020), WBHM 90.3, Birmingham, AL; available at https://wbhm.org/feature/2020/shelby-county-vote-private-toll-bridge/

Genomics: Messing around with DNA (April 11, 2019), Let's Think on It segment of Oh Brother Radio, Birmingham Mountain Radio 107.3FM, Birmingham, AL; available at http://letsthinkonitnow.com/messin-with-dna/

Faculty Friday: Collaboration between Disciplines (April 5, 2019), Social Media, Montevallo, AL; available at https://www.youtube.com/watch?v=GxkaGDbtqoY

Motivating Nonmajors (September 21, 2017), *Teaching Newsletter: Helping Students Persist*, Chronicle of Higher Education, Washington, D.C.; available at https://www.chronicle.com/article/helping-students-persist/241256

Breast Cancer (October 2015), WKLF 95.5FM 980AM, Clanton, AL

Faculty Spotlight (Winter 2015), *Montevallo Today* Magazine, University of Montevallo, Montevallo, AL; available at https://issuu.com/montevallo/docs/mt-w15

INVITED TALKS

Research Seminar Series (2022), "cGMP Signaling in the Human Breast: Implications for Breast Cancer Prevention," Auburn University Harrison College of Pharmacy Department of Drug Discovery and Development, Auburn, AL

Science on the Screen (2019), "The Good, the Bad, the Amazing: Exploring the Possibilities of Human Genomics," McWane Science Center, Birmingham, AL

GCAT Career Day (2017, 2018), "The Other Side of Academia: Tenure Track at a Liberal Arts University," University of Alabama at Birmingham, Birmingham, AL

Lunch and Learn (2016), "The Role of Breastfeeding in the Fight against Breast Cancer," North Central Alabama Affiliate of Susan G. Komen for the Cure, Birmingham, AL

Faculty Convocation (2016), "Interdisciplinary Approaches to Teaching: Deliberative Democracy in Science," University of Montevallo, Montevallo, AL

Lunch and Learn (2015), "Breast Cancer Prevention," North Central Alabama Affiliate of Susan G. Komen for the Cure, Birmingham, AL

Research Seminar Series (2012), "PDE5 as a Molecular Target for Breast Cancer Prevention," University of South Alabama Mitchell Cancer Institute, Mobile, AL

CONFERENCE PARTICIPATION

Oral Presentations:

1. **Tinsley, H.N.** (2019) "Using Deliberative Democracy in the Introductory Biology Classroom," ASCB Regional Meeting: Teaching Tomorrow's Scientists
2. **Tinsley, H.N.**, Chandler, E. and Eckelman, A. (2019) "A New Approach to Interdisciplinarity in General Education Courses," AAC&U Creating a 21st Century General Education Conference
3. **Tinsley, H.N.** (2016) "Using Current Events and Deliberative Discourse to Improve Student Performance in Gateway Science Courses," JNGI Gateway Course Experience Conference
4. Piazza, G.A. and **Tinsley, H.N.** (2010) "PDE5, a Novel Anticancer Target," Gordon Research Conference on Cyclic Nucleotide Phosphodiesterases

Poster Presentations:

1. **Tinsley, H.N.** (2018) "Improving student engagement and success in non-majors biology using a novel interdisciplinary approach," ASCB and EMBO Annual Meeting
2. Windham, P.F., Rivers, N.J. and **Tinsley, H.N.** (2015) "The Significance of PKGIβ in cGMP Induced Breast Cancer Cell Death," AACR Annual Meeting
3. **Tinsley, H.N.** (2014) "Ripped from the Headlines: Current Events as the Framework for Inquiry-based Learning in Nonmajors Biology," AAC&U Transforming STEM Education Conference
4. **Tinsley, H.N.**, Gary, B.D., Whitt, J.D., Zhang, W., Chen, X., Keeton, A.B., Grubbs, C.J., Grizzle, W.E., Piazza, G.A. (2012) "Breast cancer chemopreventive activity of a novel amide derivative of sulindac involves inhibition of PDE5, activation of PKG, and attenuation of Wnt/β-catenin signaling," AACR Annual Meeting
5. **Tinsley, H.N.**, Keeton, A.B., Lu, W., Li, Y., Piazza, G.A. (2011) "PDE5 Suppression Selectively Induces Apoptosis of Human Breast Tumor Cells and Attenuates Wnt/β-Catenin Mediated Transcription," AACR Annual Meeting
6. **Tinsley, H.N.,** Gary, B.D., Keeton, A.B., Reynolds, R., Piazza, G.A. (2009) "Sulindac Sulfide Inhibits Growth and Induces Apoptosis of Human HT-29 Colon Cancer Cells through Inhibition of PDE5A," AACR Annual Meeting

7. **Tinsley, H.N.,** Gary, B.D., Keeton, A.B., Reynolds, R., Piazza, G.A. (2008) "SRI 21009: A novel non-cyclooxygenase inhibitory derivative of sulindac that potently and selectively inhibits the growth and induces apoptosis of human breast tumor cells," AACR Annual Meeting

Moderated Sessions:

1. Bates, L., Ellefson, M., Walsh, S., Riggs, B., Hutson, L., Tinsley, H. (2024) "Exploring Careers in Cell Biology Education," ASCB and EMBO Annual Meeting
2. Martin, A., **Tinsley, H. N.,** Linden, M., Lang, J. (2023) "Foundations of Cell Biology Workshop: Use and Misuse of AI in Cell Biology Education," ASCB and EMBO Annual Meeting
3. **Tinsley, H.N.** (2023) "Follow-up Session: The Use and Misuse of AI in Cell Biology Education," ASCB and EMBO Annual Meeting

TEACHING EXPERIENCE

University of Montevallo:

* indicates a regularly taught course

*BIO 100: Principles of Biology (Traditional and Online)
*BIO 101: Freshman Seminar in Biology
*BIO 105: Introductory Biology I (Traditional and Online)
BIO 107: Honors Introductory Biology I
*BIO 206: Genetics
BIO 300: Microbiology
*BIO 307: Cell Biology (Traditional and Hybrid)
*BIO 425: Molecular Biology
*BIO 490: Senior Seminar in Biology
BIO 550/551: Current Topics (Online, for M.Ed. students)
Special Topics: Economics of Environmental Toxicology; Environmental Justice

Samford University:

BIOL 225: Microbiology for Allied Health Sciences

SERVICE

Service to the Profession:

1. Addressing Challenges in Teaching Facilitator, National Institute on Scientific Teaching (2024)
   - Facilitated a month-long exploration into ways to apply the pillars of scientific teaching to inquiry-based and CURE lab courses.
   - Coordinated a group of 6 science professors from across the world in this endeavor.
2. Advisory Council Member (2021-Present), Coosa Riverkeeper
   - Assist the Riverkeeper staff by providing support and expertise when called upon, particularly as it relates to molecular toxicology.
3. Journal Reviewer (2015-Present), *Scientific Reports, Molecular Cancer Therapeutics*, *Oncotarget, CourseSource, Endocrine Regulations, Nitric Oxide, Current Molecular Medicine*
4. Community Grants Review Panel Member (2014-2020), North Central Alabama Affiliate of Susan G. Komen for the Cure, Birmingham, AL
   - Review applications for Community Grants and make recommendations to the Board of Directors for disbursement of ≥$65,000 in Affiliate funds.

5. Textbook Reviewer (2015), *Biology for the Informed Citizen, 2nd Edition*, Oxford Press

6. Judge and Mentor (2012, 2015), Undergraduate Student Caucus and Special Event for High School Students, AACR Annual Meeting
    - Judged poster presentations by 20 undergraduate researchers during the AACR Annual Meeting.
    - Took a group of 5 students on a tour of the meeting and led discussions of research presentations.

University Committee Service:

1. University Scholar Committee Member (2017-Present)
   Chair (2024-Present)
2. Human and Animal Subjects Research Committee Member (2023-Present)
3. Assistant Professor of Biology, Botany Search Committee Member (2021-2024)
4. Assistant Professor of Biology, Anatomy and Physiology Search Committee Member (2022-2023)
5. Faculty Development Advisory Committee Member (2017-2019)
   Co-Chair (2019-2023)
6. Institutional Effectiveness Committee Member (2019-2023)
7. Distance Education Advisory Committee (2019-2023)
8. QEP Implementation Team Member (2019-2021)
9. Human and Animal Subjects Research Committee Member (2011-2020)
10. Technology Advisory Committee Member (2017-2019)
    Chair, Academic Support Subcommittee (2018-2019)
    Chair, Classroom Prioritization Committee (2017-2018)
11. Instructor of Biology Search Committee Member (2018-2019)
12. Data Governance Task Force Member (2017-2018)
    Chair, Education and Communication Subcommittee
13. First Year Experience Task Force Member (2017-2018)
14. Provost/Vice President for Academic Affairs Search Committee Member (2016-2017)
15. Faculty Senator (2015-2017)
    Untenured Faculty Liaison (2016-2017)
    Faculty Grievance Committee Appointee (2015-2016)
16. Instructor of Biology Search Committee Member (2014-2015)
17. Faculty and Professional Staff Salary Committee Member (2012-2014)
18. Assistant Professor of Biology Search Committee Member (2011-2012)

Other Service to the Department and University:

1. Teaching Mentor, UAB IRACDA-MERIT Partnership (2019-2025)
2. Judge, Alabama Junior Academy of Sciences Presentations (2018-2024)

3. Session Moderator, Undergraduate Research Day (2015, 2019)
4. Group Supervisor, GEAR-UP Alabama Discovery Day (2019)
5. Presenter, Future Falcons Day (2016-2018)
6. Interviewer, MHS Mock Interviews (2016, 2020)
7. Interviewer, Teacher's Education Program (2012-2016)

Community Involvement:

1. Girl Scout Troop 30564 Volunteer (2016-Present)
   Troop Leader (2019-Present)
2. Columbiana United Methodist Church
   Member, Church Administrative Council (2023-Present)
   Member, Staff-Parish Relations Team (2019-2023)
   Member, Family Fellowship Committee (2017-2023)
3. North Central Alabama Affiliate of Susan G. Komen for the Cure Volunteer (2009-2018)
   Chair, Education and Research Committee (2013-2017)
   Research Advocate (2012-2017)

PROFESSIONAL MEMBERSHIPS

American Society of Cell Biologists (2018-Present)

- Member, Education Committee (2022-Present)

American Association for the Advancement of Science (2006-2012; 2024-Present)

National Science Teachers Association (2015-2020; 2024)

Professional Organization of Developers (2017-2022)

American Association of Cancer Researchers (2008-2017)