

## CONTACT INFORMATION

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## EDUCATION

**Post-Graduate Certificate**, Academic Leadership, The Chicago School for Clinical Psychology, Washington DC, completed May 2013 – June 2014

**Post-Doctoral**, Medicinal Chemistry, College of Pharmacy and Pharmaceutical Sciences, Florida A&M University, Tallahassee, FL, completed August 2002 – July 2003

Research Topic: *Design and Synthesis of Tetrahydropyridines as Non-Steroidal Anti-inflammatory Agents (NSAIDs)*, Dr. Kinfe K. Redda (advisor)

**PhD**, Organic Chemistry, University of New Orleans, New Orleans, LA, completed August 1997 – July 2002  
Thesis: *Synthesis, Structure, Octanol/Water Partition Coefficients and Dopamine Transporter Affinity of Novel Less Lipophilic GBR 12909 Analogs*, Dr. Mark L. Trudell (advisor)

**BS**, Chemistry, Dillard University, New Orleans, LA, completed August 1993 – May 1997

## EXPERIENCE

### **Administrative Appointments – Spelman College, Atlanta, Ga**

August 2018 – present, Division Chair, Division of Natural Science and Mathematics

My goal as Division Chair has been to foster a climate that promotes collegiality, scholarly excellence, effective advising, accountability, faculty and staff development, and stellar student outcomes. **Major accomplishments include:**

- Collaborated with the Director of Corporate Relations and the Associate Provost for Executive Projects and Initiatives to 1) vet partnership opportunities, 2) recruit faculty and student participants, and identify strategies for engagement.
- Led the divisional preparations for the transition to emergency remote learning during the COVID-19 pandemic. Supported departments and faculty in developing teaching and research continuity plans and oversaw the shutdown of labs before the first wave of COVID and the Atlanta shelter in place order. Served as a techbuddy to support faculty in implementing online strategies. Frequently communicated with department chairs to determine the needs of faculty and students and advocated for needed solutions.



- Led divisional efforts to sustain the learning environment throughout the pandemic by serving on the college’s COVID Path Forward Taskforce and acquiring funding to support faculty technology and research needs, supporting faculty in creating plans to work in laboratories safely.
- Served on the SACSCOC reaffirmation team, preparing needed documents, participating in the virtual and in-person site visit, and developing the QEP proposal and assessment criteria.
- Collaborated with Associate Provost for Research to delineate responsibilities for the Office of Science Infrastructure and revise job descriptions for the associated staff positions.
- Collaborated with the Provost and fellow Division Chairs to finalize the job description for Division Chairs.
- Collaborated with Associate Provost for Research and the Director of the DoD Center of Excellence for Minority Women in STEM to implement the center’s activities. Activities included:
  - Identifying members for the Leadership Advisory Board and serving as an ex officio member of the board.
  - Establishing the goals of the Internal Steering Committee, recommending members, and serving as Co-chair of the Committee.
  - Serving on the Spelman-Google Design team and organized internal brainstorming.
  - Serving on the search committee for the Director of the Center.
  - Participating in the DoD site visit and soft launch.
  - Soliciting nominations for and selecting the scholarship recipients.
  - Identifying faculty participants for the DoD lab visit.
  - Establishing criteria for awards (i.e., scholarships, research internships, visiting scholars, seed awards, and publication awards) and identifying recipients.
  - Supporting fundraising efforts by assisting with the development of objectives and reviewing proposals.
  - Providing guidance on other matters as needed (e.g., review recommendation of a student’s probation or expulsion from programs)
- Established criteria and selected recipients for the Carnegie-Rockefeller Divisional Priority Awards.
- Served as Title III Activity Director for funding for the Division of Natural Science and Mathematics, as evidenced by 1) completing 98% of budget spending by the deadline and 2) collaborating with departments to collect data and developing the interim report.
- Established events to support faculty development and highlight faculty success, including plans for Divisional Forums, My Narrative© STEM Writing Workshop and Coaching Sessions, and Summer Writing on the Belt-line Sessions.
- Supported the Vice Provost by providing input on space assignments, providing staff to assist with moves, and assisting with concerns related to Title III funding for faculty start-up packages.

April 2016 – July 2017, Interim Associate Provost for Research

Responsible for enhancing faculty engagement in scholarship and creative activities (171 faculty across 33 academic disciplines); overseeing the Office of Research Resources, undergraduate student research



training programs, IRB procedures, and responsible research practices; managing an annual operating budget of \$2 million, external revenue sources totaling \$757,880, and shared facilities and instrumentation; and ensuring equitable and fair distribution of discretionary funds and laboratory and classroom space. **Major accomplishments include:**

- Broadened the scope of the Office of Research Resources by identifying and responding to faculty needs across divisions. Designed interdisciplinary professional development opportunities, including big data faculty colloquiums, design thinking and divergent thinking workshops, training on the use of eye-tracking technology, and lunch and learns on evaluation and data-driven decision making.
- Created synergy among eight student and post-doctoral training programs by streamlining student selection, ensuring consistency across expectations and training experiences, and maximizing efficient use of resources to support training activities.
- Developed a new initiative to create an innovation ecosystem through an alliance among Atlanta University Center institutions. A \$35,000 supplement was secured for planning the NSF Innovation Corps (I-Corps) site. Solidified partnerships to expand the endeavor and engaged faculty from each division to participate in I-Corps planning activities and Accelerat(ED) to enhance campus-wide curricular and scholarly agendas.
- Oversaw the planning and implementation of Research Day, hosting 212 presenters and more than 400 visitors. Instituted procedures to enhance the intellectual rigor of the event.
- Partnered with the Offices of Sponsored Programs and Institutional Advancement to cultivate donor relationships, advocate for programs that showed promise for generating external revenue, and develop documentation for more effective fundraising and outcomes reporting. Prepared successful proposals for new funding and competitive renewal totaling \$379,576 (included in the above-stated external revenue).
- Partnered with the Office of Government Relations to increase national advocacy and visibility for Spelman's initiatives with federal entities. Served as lead organizer of National Lab Day for the Atlanta University Center, attended by scientists and administrators from each national lab to establish collaborations with faculty across all sectors.

#### August 2012 – July 2017, Chair, Department of Chemistry and Biochemistry

Responsible for leadership and management of 14 full-time faculty and 150 majors on average; overseeing four degree tracks and an annual operating budget of \$1.5 million; and coordinating workload distribution, course scheduling, and data collection for reports and program review. **Major accomplishments include:**

- Partnered with the Office of Institutional Advancement to cultivate donor relationships and established guidelines for managing gifts. Received funding for a \$1 million departmental endowment and an additional \$50,000 in corporate donations. Utilized funds to create a scholar program within the department, providing co-curricular training and independent research experiences with measurable outcomes.
- Leveraged resources to expand the development and implementation of evidence-based teaching strategies and increase scholarship related to diversity, equity, and inclusion, resulting in 12 full-time faculty undertaking formal projects in this area. Adopted pedagogies that foster authentic learning and interactive engagement.



- Established strategies to assess the department's impact based on student learning outcomes, faculty use of evidence-based learning activities, and faculty and student scholarly productivity. Redesigned assessment strategies to better characterize the nature and quality of learning in courses.
- Established relationships with research institutions to support students' transition into graduate school, facilitate cross-institutional research and teaching collaborations and apply sound strategies to retain students of color in the STEM pipeline. Students are currently matriculating or have completed programs at five partner institutions.
- Created the Chemistry Learning Center to assist students enrolled in general and organic chemistry through workshops, structured study groups, online homework blogs, and one-on-one tutoring for general and organic chemistry courses. The center employs six learning apprentices/tutors and serves an average of 154 students per semester.

August 2011 – July 2012, Vice-Chair, Department of Chemistry and Biochemistry

Responsible for supporting the Chair in ensuring curricular rigor and relevance.

- Established course sequence for the Chemistry Secondary Education major and participated in accreditation activities for the Education Studies Program.
- Designed and implemented a blueprint for the research-based capstone experience within the major. Improved the cohesion of independent research courses by measuring learning outcomes and experiential quality.

May 2009 – May 2012, Director, ExxonMobil Women in Science and Engineering Scholars

Responsible for partnering with the Office of Institutional Advancement to cultivate donor relationships and overseeing the scholarship program, which supported students in the dual-degree engineering program.

- Manage the \$1 million gift that resulted from the partnership with Institutional Advancement.
- Established guidelines for student selection and subsequent professional development that reflected the donor's expectations.
- Assisted with donor site visits and document preparation detailing program outcomes.

August 2009 – July 2012, Co-Director, Advancing Spelman's Participation in Informatics Research and Education Program (ASPIRE)

Responsible for creating an integrated program for the development of an informatics-based curriculum and interdisciplinary research teams.

- Served on the team that developed the program framework.
- Utilized an externally funded budget of \$2.23 million to implement program objectives and engaged external partners to provide faculty with the advisement, collaboration, and training needed to develop successful learning modules and research projects.
- Fostered fairness and consistency in the distribution of financial support for students and faculty. Supported the production of five courses, six course modules, and six interdisciplinary research teams.



- Received an additional \$38,000 from the National Science Foundation to send a Spelman faculty-student research team to Pacific Northwest National Laboratory to complete projects in the summers of 2011 and 2012.
- Created the ASPIRE Peer-Facilitated Learning Program to provide peer-led supplemental instruction to students enrolled in entry-level and bottle-neck STEM courses. Employed 23 peer facilitators and served an average of 700 students (including students cross-registered for courses) per semester. Achieved an 82% success rate among students participating in learning sessions for associated courses.

## Faculty Appointments

August 2017 – July 2018, Visiting Associate Professor, College of Pharmacy, University of Michigan, Ann Arbor, MI

- Contributing to diversity, equity, and inclusion initiatives that align with the implementation of the College of Pharmacy's strategic plan.
- Establishing partnerships between the College of Pharmacy and Spelman College to develop collaborative teaching activities related to medicinal chemistry.

August 2003 – present, Associate Professor (2010 – present) and Assistant Professor (2003 – 2009), Department of Chemistry and Biochemistry, Spelman College, Atlanta, GA

- Established research programs for 1) rational drug design in the treatment of reproductive cancers, 2) characterizing student agency and metacognition in active learning environments, and 3) documenting success narratives of women of color in STEM. Mentored 45 student participants, 30 of whom have since pursued advanced degrees.
- Taught general education courses, including Fat Transfer and the Age of Constructing Beauty (FYC 100) and First-Year Experience (EDU 101 and 102).
- Taught chemistry courses, including Biomedical Business (CHE 162); Organic Chemistry lecture, lab, and recitation (CHE 231, 232, 233L, and R; 234L and R); Medicinal Chemistry (CHE 431); and Undergraduate Senior Seminar (CHE 429).
- Served as an academic advisor for department majors and co-curricular advisor for Global STEM research projects and various externally funded research programs.

## MILITARY EXPERIENCE

October 2002 – September 2009, Captain, Biochemist (Individual Mission Assignment), US Army Medical Institute of Chemical Defense (MRICD), Aberdeen Proving Grounds, MD

May 1997 – October 2002, First Lieutenant, Medical Officer (Reservist), 4010<sup>th</sup> US Army Medical Hospital, New Orleans, LA

August 1995 – May 1997, Cadet, Administrator (Reservist), 410<sup>th</sup> Personnel Service Company/751<sup>st</sup> AG Company, New Orleans, LA

September 1994 – August 1995, Private First Class, Administrator (Reservist), 410<sup>th</sup> Personnel Service Company/751<sup>st</sup> AG Company (DA Postal), New Orleans, LA



## PROFESSIONAL SERVICE & CONSULTANCIES

### AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (AAAS)

September 2023 – present, Member, AAAS Nominations and Leadership Development Committee (NLDC).

July 2023, Member, Levers for Change 2023 Working Group, AAAS, with support from the National Science Foundation (NSF).

May 2019, Stains, M. Trajectories of Reform Implementation in Chemistry and Biochemistry Undergraduate Instruction. In *Levers for Change: An Assessment of Progress on Changing STEM Instruction*; Laursen, S., American Association for the Advancement of Science: Washington, DC, 2019; 40 – 62 pp. ISBN: 978-0-87168-776-0.

### AMERICAN CHEMICAL SOCIETY (ACS)

June 2023 – present, Member, HBCUs in STEM, ACS Office of the President and CEO.

June 2023 – present, Member, Taskforce, Division of Chemical Education (DivCHED), ACS.

July 2021 – present, Member, Supporting Excellence in Education – Higher Education (SEE-HE), Society Committee on Education (SOCED), ACS.

May 2021 – present, Member, Council for Equity, Diversity, Inclusion, and Respect, Biennial Conference on Chemical Education 2022.

February 2020 – present, Editorial Advisory Board, Journal of Chemical Education, ACS Publications.

November 2019 – present, Member (co-Chair, 2023), Committee on Professional Training, ACS Board of Directors.

January 2017 – present, Executive Board Member (Chair, Minority Chemists Subdivision, 2018, 2020, and 2021), Professional Relations, ACS.

### EXTERNAL TENURE AND PROMOTION REVIEWS

September 2022, Monmouth University

November 2021, University of California, Riverside

November 2021, University of California, San Diego

October 2020, Kalamazoo College

### NATIONAL ACADEMIES OF SCIENCES

National Academies of Sciences, Engineering, and Medicine. 2021. *Diversity, equity, and inclusion in chemistry and chemical engineering: Proceedings of a workshop—in brief*. Washington, DC: The National Academies Press. <http://doi.org/10.17226/26334>.



## NATIONAL INSTITUTES OF HEALTH (NIH) AND PROJECT ADVISORY BOARDS

September 2023 – present, Councilor (Ad Hoc for Winter Council, February 2022), National Advisory General Medical Sciences Council (NAGMSC)

July 2020 – present, Advisory Board Member, Katies for Aging Research and Equity (KARE) program (National Institutes on Aging Award No. R25AG060892).

## NATIONAL SCIENCE FOUNDATION (NSF) AND PROJECT ADVISORY BOARDS

December 2020, Committee of Visitors, NSF Human Resource Directorate

June 2020 – present, Advisory Board Member, Broadening Participation Research Center: Collaborative Research: Center for Research on Identity and Motivation of African American Students in STEM (NSF Award No. 2010860).

February 2020, HBCU-UP PIs Future Funding Focus Group.

October 2018 – present, Advisory Board Member, Xavier ADVANCE Adaptation - Supporting Transformation: Intersectional Directions to Engender Success (NSF Award No. 1761287)

March 2017, Work-Life Balance Policy for the HBCU Context, sponsored by the American Association of Colleges and Universities and the NSF. The working group convened in Washington, DC.

June 2016 – present, Leadership Board Member, Organic Chemistry Educational Resources faculty learning community, a web-based community launched by the NSF-sponsored Chemistry Collaborations, Workshops and Community of Scholars Program.

## QUALITY EDUCATION FOR MINORITIES

May 2022, NSF Historically Black Colleges and Universities Undergraduate Program (HBCU-UP), Leveraging your Success: Research Beyond the HBCU-UP Program, Virtual Workshop.

October 2021, Proposal Development Coaching for NSF's Historically Black Colleges Undergraduate Programs – Broadening Participation Research and Education and Human Resources Directorate Core Research Programs.

April 2020, Proposal Development Workshop for the NSF's Historically Black Colleges Undergraduate Programs – Broadening Participation Research and Education and Human Resources Directorate Core Research Programs.

February 2019, *NSF INCLUDES: A National Summit to Survey and Stimulate Broadening Participation Research (BPR) at Historically Black and Tribal Colleges/Universities.*

## OTHER

February 2024, Learning Support Specialist, University of California, Los Angeles Extension, Skin Care Ingredient Series for Cosmetic Professionals: Part 1.



June 2023, Participant, Defense Innovation Board Task Force: Academia Views on the National Defense S&T Strategy Roundtable

January 2023 – present, Member, Diversity and Inclusion Committee, Society of Cosmetic Chemists.

January 2023 – present, Member, Education Committee, Society of Cosmetic Chemists.

November 2022 – present, Member, IES Abroad Engineering Curriculum Committee

August 2021 – 2023, Understanding Interventions Executive Leadership Board.

2006 – 2008, Educational Steering Committee Member, Intellectual Capital Partnership Program – Center for Behavioral Neuroscience and the Georgia Biomedical Partnership.

## PROFESSIONAL AFFILIATIONS

American Chemical Society (Since 1997)

American Association for the Advancement of Science (Since 2016)

National Organization for the Advancement of Black Chemists and Chemical Engineers (Since 2001)

National Council for Undergraduate Research (Since 2012)

Society of Cosmetic Chemists (Since 2021)

Society of Cosmetic Scientists (Since 2020)

Society of Women of Color in STEM (Since 2013)

## HONORS AND AWARDS

2024, Robert Holland Jr. Award for Research Excellence and Contributions to Diversity, Equity and Inclusion, Research Corporation for Science Advancement

2023, Henry C. McBay Outstanding Teacher Award, National Organization of Black Chemists and Chemical Engineers

2023, Presidential Award for Excellence in Service, Spelman College

2022, Fellow, American Chemical Society

2021, Chapter Merit Award, Society of Cosmetic Chemist Southeast Chapter

2021, North Fulton Section, National Council of Negro Women, Women of Purpose in STEAM

2021, National Science Foundation Scholar, Institute in Critical Quantitative, Computational, and Mix Methodologies

2020, Pfizer Worldwide Research and Development Green Chemistry Award

2018, Academic Writing Residency, Rockefeller Foundation, Bellagio Center

2016, Fellow in Residence, Women's International Study Center





2016, The Council of Independent Colleges and the American Academic Leadership Institute, Senior Leadership Academy Fellow

2015, Vulcan Materials Company Teaching Excellence Award, Spelman College

2014, 2013, and 2010; Summer Scholar in Residence, Faculty Resource Network, New York University

2013, NSF Opportunities for Under-Represented Scholars Program Fellow

2011, American Association for Cancer Research Minority Serving Institutions Faculty Scholar in Cancer Research

2009, Presidential Award for Teaching Excellence – Junior Faculty, Spelman College

2006, 2008, and 2009, Spelman College Faculty Development Award

2004, Iota Sigma Pi Honor Society for Women in Chemistry

## TEACHING

### COURSES TAUGHT

Biomedical Business (CHE 162), Fat Transfer and the Age of Constructing Beauty (FYC 100), First Year Experience (EDU 101, EDU 102), Medicinal Chemistry (CHE 431), Organic Chemistry I and II (CHE 231, CHE 232), Organic Chemistry Laboratory I and II (CHE 233L, 234L), Organic Chemistry Recitation I and II (CHE 233R, CHE 234R), Undergraduate Senior Seminar (CHE 429)

### OTHER TEACHING ACTIVITIES

2017, Co-Director, CIEE-Spelman Intercultural Engagement Program, Legon, Ghana.

2014 – present, Coach and Facilitator, PKAL Summer Leadership Institute, American Association of Colleges and Universities (AAC&U), Adamstown, MD

Summer 2007, Project Leader, Women in STEM (WiSTEM), Spelman College, Atlanta, GA

### GLOBAL STEM SCHOLARS ADVISED

1. Kierra Brown, *Tumor Necrosis Factor, and Tumor Necrosis Factor Receptors in Coelacanth genes*, South Africa, Summer 2013.
2. Niwa Coleman, *Analysis of C-type Lectin-Like Domains of the African Coelacanth Genome*, South Africa, Summer 2013.
3. Niwa Coleman, *Collateral Sensitivity of Resistant MRP1-Overexpressing Cells to Flavonoids and Ferrocene Derivatives through GSH efflux*, France, Summer 2014.
4. Kwadernica Rhea, *Education as the Best Medicine: A KAP Study of Tuberculosis in HaMakuya*, South Africa, Summer 2013.



5. Lindsay Stanford, *T6SS Assembly of Pseudomonas aeruginosa Studied by Microscopy Approaches*, France, Summer 2014.

## DEPARTMENTAL HONORS THESIS ADVISED

1. Nadege Gitego, *Design and Synthesis of Benzimidazole as Potential Inhibitors of Ovarian Cancer Proliferation and Metastasis*, 2016.
2. Sandra K. Jones, *The Synthesis of Novel Benzimidazole Derivatives with Applications as Anti-Cancer Agents and Organic Light Emitting Diodes*, 2011.
3. Brittany Rhodes, *The Design and Synthesis of Benzimidazole for DNA Intercalation*, 2011.

## CURRICULAR RESOURCES DEVELOPED

1. Winfield, L. Spelman College Cosmetic Science Minor, 2023.
2. Winfield, L. Spelman College Cosmetic Chemistry Concentration, 2023.
3. Winfield, L. eSpelman Certificate in Cosmetic Science, 2022.
4. Winfield, L. COVID-19 Related Exam Questions. Organic Education Resources, 2021. <https://organicers.org/%3Fq%3Dcurriculum-materials/exams-and-quizzes/covid-19-related-exam-questions>.
5. Winfield, L. In Our Element Lesson Plan 2, Intermolecular Forces. Leyte Winfield, 2021
6. Winfield, L. In Our Element Lesson Plan 1, Enols and Enolate Project. Leyte Winfield, 2021
7. Winfield, L.; Fullilove, F.; Morris, M.; Sanders, S. Organic Chemistry II Workshops. Leyte Winfield, 2017.
8. Winfield, L. ChemDrills, worksheets for the interactive learning-based organic chemistry classroom. Leyte Winfield, 2015.
9. Winfield, L. Fundamental Medicinal Chemistry, a computational modeling workbook. Leyte Winfield, 2015.

## MENTORING

### ASPIRE PEER FACILITATED LEADERS MENTORED

- |   |   |
|---|---|
| 1. Tamara Weddington, Fall 2013                     | 5. Brittney Rhodes, Fall 2009 – Spring 2011 |
| 2. Dominique Newallo, Fall 2012                     | 6. Sandra Jones, Fall 2009 – Spring 2010    |
| 3. Donyeil Hoy (Morehouse), Fall 2011 – Spring 2012 | 7. Chyree Batton, Fall 2008 – Spring 2009   |
| 4. Terrahney Wilson, Fall 2010 – Spring 2011        | 8. Allyson Anderson, Spring 2008            |



## ACS SCHOLARS MENTORED

1. Courtney Harrison, Fall 2014 – Spring 2017
2. Sandra Jones, Fall 2007 – Spring 2011
3. Pilanda McDougald, Fall 2007 – Spring 2011
4. Brittany Rhodes, Fall 2007 – Spring 2011
5. Chyree Batton, Fall 2005 – Spring 2008

## CHEMISTRY LEARNING APPRENTICES MENTORED

1. Kamlynne Fountane, Fall 2018 – Spring 2019
2. Gygeria Manuel, Fall 2018 – Spring 2019
3. J'naya Pendegrass, Fall 2018 – Spring 2019
4. Samantha Roach, Fall 2018 – Spring 2019
5. Ansley Carlisle, Spring 2017
6. Alexandria Dansby (graduate student, Georgia State University), Spring 2017; Fall 2018 – Spring 2019
7. Janise Jackson (graduate student, Clark Atlanta University), Springs 2017 – 2019
8. Genefine Sapateh (graduate student, Clark Atlanta University), Spring 2017
9. Victoria Barber, Fall 2017 – Spring 2019
10. Michelle Kaimeny, Fall 2017 – Spring 2019
11. Raisa Twiringiyimana, Fall 2017
12. Gabrielle Webb, Fall 2017 – Spring 2018
13. Patience Mukashyaka, Fall 2016 – Spring 2017
14. Phoenix Williams, Fall 2016 – Spring 2017
15. K'yal Bannister, Fall 2015 – Spring 2016
16. Kayla Dean, Fall 2015 – Spring 2017
17. Chelesa Fearce, Fall 2015 – Spring 2017
18. Tiana Shaw (graduate student, Clark Atlanta University), Fall 2015 – Fall 2016
19. Jayne Rice, Fall 2014 – Spring 2015
20. Isabelle Niyonshuti, Fall 2013 – Spring 2014
21. Kanessa Gillyard, Fall 2012 – Spring 2013
22. Kimimnickque Harbert, Fall 2012 – Spring 2014
23. Cadiesha McKenly, Fall 2012 – Spring 2013

## RESEARCH MENTORING ACTIVITIES – PROGRAMS

1. ACS – Project Seed
2. Center for Disease Control-Association of Minority Health Professions Schools, Inc. – Star Labs
3. Chemistry & Biochemistry Scholars Program
4. Fellowships in Research and Science Teaching
5. Fulton County Talented & Gifted Internship Program
6. Georgia Institute of Technology Facilitating Academic Careers in Engineering and Science
7. Howard Hughes Medical Institute
8. Independent Study – Undergraduate Research in Chemistry Course
9. National Aeronautical and Space Administration - Space Scholars



10. National Institutes of Health, Minority Access to Research Careers Undergraduate Student Training in Academic Research
11. National Institutes of Health, Research Initiative for Scientific Enhancement Program
12. NSF, Historically Black Colleges and Universities Undergraduate Program at Morehouse College
13. NSF, Georgia-Alabama Louis Stokes Alliance for Minority Participation
14. NSF/National Aeronautics and Space Administration Model Institutes of Excellence

## RESEARCH MENTORING ACTIVITIES – INDIVIDUALS MENTORED

### K-12 STUDENTS

- |  |   |
|--|---|
| 1. Kimberly Yuself <sup>6</sup> , 12 <sup>th</sup> grader, Spring 2013 | 4. Jasmine Richardson <sup>1</sup> , 11 <sup>th</sup> grader, Summer 2009 |
| 2. Chinelo Egbosiuba <sup>5</sup> , 11 <sup>th</sup> grader, Fall 2012 |   |
| 3. Gillian Finley <sup>2</sup> , 8 <sup>th</sup> grader, Fall 2009     | 5. Nakayla Williams <sup>2</sup> , 8 <sup>th</sup> grader, Fall 2009      |

### UNDERGRADUATE RESEARCH STUDENTS

6. Kobe Abney<sup>8</sup>, chemistry, Fall 2018 – Spring 2019, a rising senior
7. Miranda Merrit<sup>8</sup>, chemistry-dual-degree engineering, Fall 2018 – Spring 2019, a rising senior transitioning to the University of Michigan to complete the engineering degree
8. Nadege Gitego<sup>8</sup>, biochemistry, Fall 2015 – Spring 2016, PhD student, Biomedical Science, Albert Einstein School of Medicine
9. Morgann Adams<sup>8</sup>, chemistry, Spring 2014 – Spring 2017, MS student, Drexel College of Medicine
10. Kayla Moore<sup>11</sup>, chemistry, Fall 2014 – Spring 2015, unknown
11. Thaisha Wright<sup>11</sup>, chemistry, Fall 2012 – Spring 2015, PhD, Miami University
12. Jordan Campbell<sup>10,11</sup>, chemistry (Morehouse), Fall 2011 – Spring 2014, PhD, University of California – San Diego
13. Keyanni Shaw<sup>3</sup>, chemistry, Fall 2011 – Spring 2013, Summer 2012, DDS, University of Detroit – Mercy and MS and Biomedical Science, Barry University
14. James Robertson<sup>8</sup>, chemistry (Morehouse), Fall 2010 – Spring 2011, MD, Meharry School of Medicine
15. Leilah Langston<sup>8</sup>, chemistry, Fall 2009 – Spring 2010, DDS, University of North Carolina School of Dentistry
16. Serina Lewis<sup>11</sup>, biology, Fall 2009 – Spring 2010, MD, Georgetown University
17. Ciera Quash<sup>8</sup>, biology, Fall 2009 – Spring 2010, PharmD, Notre Dame of Maryland University
18. Brittany Rhodes<sup>3, 10</sup>, chemistry, Fall 2009 – Spring 2011 and Summer 2009, MS, Pharmacology, New York University School of Medicine



19. Sasha Curry<sup>8</sup>, chemistry, Spring 2009, DDS and MPH, Meharry School of Medicine and MS, Boston University
20. Jasmine Coleman<sup>8</sup>, biochemistry, Fall 2008 – Spring 2009, DO, Alabama College of Osteopathic Medicine and MS, Biomedical Science, Barry University
21. Alisha Fisher<sup>11</sup>, biochemistry, Fall 2008 – Spring 2012 and Summer 2011, MPH, University of Kansas
22. Donyeil Hoy<sup>12</sup>, chemistry (Morehouse), Fall 2008 – Spring 2011 and Summer 2009 and 2010, PhD (NSF Graduate Research Fellow), University of Connecticut
23. Sandra Jones<sup>6,11</sup>, chemistry, Fall 2008 – Spring 2011, PhD (Gilliam Fellow), Neuroscience, Rockefeller University
24. Pilanda McDougald<sup>11</sup>, chemistry, Fall 2008 – Spring 2011 and Summer 2009, PhD (NSF Graduate Research Fellow), Inorganic Chemistry, Louisiana State University
25. Tanisha Billups<sup>8</sup>, chemistry, Summer 2008, MS Engineering, North Carolina A & T State University
26. Mandisa Bell<sup>3,11</sup>, biochemistry, Fall 2007 – Spring 2009 and Fall 2010 – Spring 2011, unknown
27. Anaïs Parker<sup>8</sup>, biochemistry, Fall 2007 – Spring 2008, MD, Washington University
28. Chyree Batton<sup>7,9,14</sup>, chemistry, Fall 2006 – Spring 2009 and Summers 2008 and 2009, PhD, Organic Chemistry, LSU
29. Natalie James<sup>11</sup>, biochemistry, Fall 2006 – Spring 2007, MS, Organic Chemistry, University of California Los Angeles
30. Ebonie Battle<sup>8</sup>, biology, Summer 2005, Fall 2005 – Spring 2006, K12 administrator
31. Jessenia Roa<sup>14</sup>, chemistry (Universidad Metropolitana), Summer 2005, unknown
32. Carolina Sanchez<sup>14</sup>, chemistry (Universidad Metropolitana), Summer 2005, unknown
33. Jasmin Courtney<sup>9,11</sup>, biochemistry, Fall 2004 – Spring 2007, MBA, University of Chicago
34. Carmine Leggett<sup>9</sup>, biochemistry, Fall 2004 – Spring 2006, PhD, Pharmacology, the University of Louisville on MS, Organic Chemistry, Delaware State University
35. Chanceity Robinson<sup>9</sup>, biochemistry, Fall 2004 – Spring 2007, JD, John Marshall Law School.

#### **POST-BACCALAUREATE RESEARCH ASSOCIATES ADVISED**

36. Rochelle Annan, chemistry (Xavier University of Louisiana), Fall 2012 – Spring and Summer 2013, unknown
37. Bryanna Williams, biology, Summer 2009 and Fall 2009 – Spring 2010, unknown
38. Jessica White, biology (University of Georgia), Summer 2005, Physician Assistant, University of Alabama Birmingham
39. Ericka Stokes, environmental science, Fall 2003 – Spring 2004 and Summer 2004, MBA, DeVry University

#### **POST-DOCTORAL ASSOCIATES**



40. Suazette Reid Mooring<sup>4</sup>, Fall 2011 – Spring 2012, Tenured Professor, Georgia State University

41. Ann Dougherty, Fall 2010 – Spring 2011, unknown

42. Anna Fallon<sup>4</sup>, Fall 2007 – Spring 2008, Principal and Founder of Renovo BioMedical

### VISITING FACULTY

43. Anthony Cooley, K-12 educator, DeKalb County, Summer 2009

44. Chavonda Mills, Professor, Georgia College & State University, Summer 2010

### RESEARCH MENTORING ACTIVITIESe- STUDENT PRESENTATIONS

#### CONTRIBUTED ORAL PRESENTATIONS

1. Fisher, A.; Winfield, L. Design and Synthesis of Benzimidazole for DNA Intercalation. Research Day, Spelman College, Atlanta, GA, April 2012.
2. McDougald, P.; Winfield, L. Design and Synthesis of Benzimidazole as Potential Antioxidants. Research Day, Spelman College Atlanta, GA, April 2011. **First Place Winner**
3. Hoy, D.; Winfield, L. Inhibiting Proliferation in Prostate Cancer Cells Using Benzimidazole-Based Ligands. Emerging Researchers National Conference in STEM, American Association for the Advancement of Science and the NSF, Washington, DC, February 2011. **First Place Winner**
4. Hoy, D.; Winfield, L. Inducing Apoptotic Signals in Prostate Cancer Cells Using Benzimidazole-Based Ligands, Preliminary Studies. Dr. John H. Hopps Research Scholars Program, Morehouse College, Atlanta, GA, July 2009.

#### CONTRIBUTED POSTERS PRESENTATIONS

5. Adams, M.; Gitego, N.; Gregory-Bass, R.; Winfield, L. Design and Synthesis of Benzimidazole Derivatives as a Potential Inhibitors of Ovarian Cancer Proliferation and Metastasis. Posters on the Hill 2016, Council for Undergraduate Research, Washington, DC, April 2016. **Honored for Outstanding Undergraduate Research**
6. Wright, T.; Winfield, L. Synthesis of Sulfonamide Derivatives for the Improvement of Chemotherapeutic Treatment. Emerging Researchers National Conference in STEM, American Association for the Advancement of Science and the NSF, Washington, DC, February 2015. **Third Place Winner**
7. Ruffner, L.; Jackson, K.; Winfield, L. Computational Modeling of Dietary Dibenzoylmethane for Targeting GR Binding Sites in Hormone Refractory Prostate Cancer. 245<sup>th</sup> ACS National Meeting, Atlanta, GA, April 2013.
8. Fisher, A.; Winfield, L. Design and Synthesis of Benzimidazole for DNA Intercalation. 245<sup>th</sup> ACS National Meeting, San Diego, CA, March 2012.
9. Jones, S.; Hoy, D.; Winfield, L. The Synthesis of Benzimidazole-Based Iridium Complexes as Organic Light-Emitting Diodes. Posters on the Hill 2011, Council for Undergraduate Research, Washington, DC, April 2011. **Honored for Outstanding Undergraduate Research**



10. Hoy, D.; Winfield, L. Inhibiting Proliferation in Prostate Cancer Cells Using Benzimidazole-Based Ligands. Emerging Researchers National Conference in STEM, American Association for the Advancement of Science and the NSF, Washington, DC, February 2011. **First Place Winner**
11. McDougald, P.; Winfield, L. Design and Synthesis of Benzimidazole as Potential Antioxidants. Emerging Researchers National Conference in STEM American Association for the Advancement of Science and the NSF, Washington, DC, February 2011. **First Place Winner**
12. Rhodes, B.; Winfield, L. Design and Synthesis of Benzimidazole for DNA Intercalation. Emerging Researchers National Conference in STEM, American Association for the Advancement of Science and the NSF, Washington, DC, February 2011.
13. Hoy, D.; Winfield, L. Inducing Apoptotic Signals in Prostate Cancer Cells Using Benzimidazole-Based Ligands, Preliminary Studies. ACS Southeastern Regional Meeting, San Juan, PR, October 2009.
14. Jones, S.; Winfield, L. The Synthesis of Celecoxib Derivatives as Potential Heat Shock Inhibitors. ACS Southeastern Regional Meeting, San Juan, PR, October 2009.
15. Jones, S.; Winfield, L. The Synthesis of Celecoxib Derivatives as Potential Heat Shock Inhibitors. Annual Biomedical Research Conference for Minority Students, Phoenix, AR, November 2009.
16. McDougald, P.; Winfield, L. Design and Synthesis of Benzimidazole as Potential Anti-oxidants. Annual Biomedical Research Conference for Minority Students, American Society of Microbiology, Phoenix, AR, November 2009.
17. Batton, C.; Winfield, L. The synthesis and Biological Activity of an Ethylnaphthalenyl Substituted Benzimidazole. Annual Conference of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, St. Louis, MO, April 2009.
18. Anderson, A.; Johnson, A.; Winfield, L.; Jackson, K. Structural Modifications of Celecoxib (Celebrex) Enhance Biological Efficacy in Human Prostate Cancer Cells. American Association of Cancer Research National Meeting 2007, Los Angeles, CA, April 2007.
19. Courtney, J.; Winfield, L. Microwave Synthesis of Substituted Benzimidazole Derivatives. 231<sup>st</sup> ACS National Meeting, Atlanta, GA, March 2006.
20. Robinson, C.; Battle, E.; Winfield, L. Examining Nucleophilic Aromatic Substitution as an Undergraduate Organic Chemistry Laboratory Project. 231<sup>st</sup> ACS National Meeting, Atlanta, GA, March 2006.
21. Leggett, C.; Winfield, L. Using ADMET Predictor to Measure Parameters of Heterocyclic Molecules. Annual Conference of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Los Angeles, CA, March 2006.
22. Sánchez, C.; Robinson, C.; Winfield, L.; Bose, N. Microwave Synthesis of Biologically Active 4-Substituted Quinazolines. Society for Advancement of Chicanos and Native Americans in Science National Conference, Denver, CO, October 2005.



## NON-REFEREED POSTERS PRESENTATIONS

23. Adams, M.; Gitego, N.; Gregory-Bass, R.; Winfield, L. Design and Synthesis of Benzimidazole Derivatives as a Potential Inhibitors of Ovarian Cancer Proliferation and Metastasis. Research Day, Spelman College, Atlanta, GA, April 2016.
24. Adams, M.; Winfield, L. Computational Analysis of Naphthyl Based Compounds as Potential Anti-proliferative Breast Cancer Treatment. Research Day, Spelman College, Atlanta, GA, April 2015.
25. Wright, T.; Winfield, L. Synthesis of Sulfonamide Derivatives for the Improvement of Chemotherapeutic Treatment. Research Day, Spelman College, Atlanta, GA, April 2015. **Second Place Winner**
26. Wright, T.; Winfield, L. Synthesis of Sulfonamide Derivatives for the Improvement of Chemotherapeutic Treatment. Research Core Day, Morehouse School of Medicine, March 2015.
27. Byrd, T.; Gregory Bass, R.; McGinnis, M.; Winfield, L. The Effects of Benzimidazole-based Sulphonamide on SKOV3 Ovarian Cancer Cell Metastasis. Research Day, Spelman College, Atlanta, GA, April 2014.
28. Gitego, N.; Gregory Bass, R.; Winfield, L. The Apoptotic Effect of Benzimidazole-Based Sulphonamide (Drug X) on Multidrug-Resistant SKOV3 Cells. Research Day, Spelman College, Atlanta, GA, April 2014. **Second Place Winner**
29. Ruffner, L.; Jackson, K.; Winfield, L.; Shaw, R. Computer-aided Drug Discovery for Hormone Refractory Prostate Cancer. Research Day, Spelman College, Atlanta, GA, April 2014.
30. Phillips, K.; Winfield, L.; Gregory Bass, R. Bioinformatic Analysis of Multi-Drug Resistant Ovarian Cancer Cells, SKOV-3. Research Day, Spelman College, Atlanta, GA, April 2013.
31. Ruffner, L.; Jackson, K.; Winfield, L. Biological Validation and Computational Modeling of DBM-GR Interactions in Hormone Refractory Prostate Cancer. Research Day, Spelman College, Atlanta, GA, April 2013. **First Place Winner**
32. Sykes, C.; Winfield, L.; Gregory Bass, R. Anti-proliferative and Anti-Apoptotic Effects of a Novel Chemotherapeutic Agent in SKOV-3 Ovarian Cancer Cells. Research Day, Spelman College, Atlanta, GA, April 2013.
33. Wright, T.; Annan, R.; Winfield, L. Synthesis of Guanidine Derivatives for the Improvement of Chemotherapeutic Treatment. Research Day, Spelman College, Atlanta, GA, April 2013.
34. Ruffner, L.; Jackson, K.; Winfield, L. Computational Modeling of Dietary Dibenzoylmethane for Targeting GR Binding Sites in Hormone Refractory Prostate Cancer. Research Day, Spelman College, Atlanta, GA, April 2012. **First Place Winner**
35. Fisher, A.; Dougherty, A.; Winfield, L. Design and Synthesis of Benzimidazole for DNA Intercalation. Research Day, Spelman College, Atlanta, GA, April 2011.
36. Jones, S.; Winfield, L. The Synthesis of Celecoxib Derivatives as Potential Heat Shock Inhibitors. Research Day, Spelman College, Atlanta, GA, April 2010.
37. McDougald, P.; Winfield, L. Design and Synthesis of Benzimidazole as Potential Anti-Oxidants. Research Day, Spelman College, Atlanta, GA, April 2010.





38. McDougald, P.; Winfield, L. Design and Synthesis of Benzimidazole as Potential Anti-Oxidants. Summer Research Symposium, Minority Biomedical Research Support – Research Initiative for Scientific Enhancement Program, Spelman College, Atlanta, GA, July 2009.
39. Richardson, J.; Winfield, L. Design and Synthesis of Benzimidazole as DNA Intercalator. Summer Research Symposium, Minority Biomedical Research Support – Research Initiative for Scientific Enhancement Program, Atlanta, GA, July 2009.
40. Rhodes, B.; Winfield, L. Design and Synthesis of Benzimidazole as Peripheral CB1 Ligands. Summer Research Symposium, Minority Biomedical Research Support – Research Initiative for Scientific Enhancement Program, Atlanta, GA, July 2009.
41. Bell, M.; Winfield, L. The Synthesis of Benzimidazole-Based Molecules to Inhibit PDK1 Pathways. Research Day, Spelman College, Atlanta, GA, April 2009. **First Place Winner**
42. Batton, C.; Winfield, L. Preliminary Studies of Palladium-Based Benzimidazole Transition Metal Complexes and Their Applications. Annual Biomedical Research Conference for Minority Students, American Society of Microbiology, Atlanta, GA, October 2008.
43. Batton, C.; Winfield, L. Preliminary Studies of Palladium-Based Benzimidazole Transition Metal Complexes and Their Applications. Pfizer Global R&D, La Jolla, CA, August 2008.
44. Parker, A.; Collins, S.; Winfield, L. Exploring the DNA Binding of Transition Metal Complexes. Research Day, Spelman College, Atlanta, GA, April 2008.
45. Anderson, A.; Johnson, A.; Winfield, L.; Jackson, K. Structural Modifications of Celecoxib (Celebrex) Enhance Biological Efficacy in Human Prostate Cancer Cells. Model Institutions of Excellence Research Day, Spelman College, Atlanta, GA, April 2007.
46. Anderson, A.; Johnson, A.; Winfield, L.; Jackson, K. Structural modifications of celecoxib enhance biological efficacy in human prostate cancer cells. Pathogenesis of Cancer, 3rd Annual National Symposium on Prostate Cancer, Clark Atlanta University, Atlanta, GA, March 2007.
47. Battle, E.; White, J.; Leggett, C.; Winfield, L. Microwave Synthesis of Diaryl Amines. Model Institutes of Excellence XVI Undergraduate Research Symposium, San Juan, PR, September 2005.
48. Robinson, C.; Courtney, J.; Winfield, L. Synthesis of *N*-(2-nitrophenyl)aniline Derivatives. Model Institutes of Excellence XVI Undergraduate Research Symposium, San Juan, PR, September 2005.
49. Sánchez, C.; Robinson, C.; Winfield, L.; Bose, N. Microwave Synthesis of Biological Active 4-Substituted Quinazolines. Model Institutes of Excellence XVI Undergraduate Research Symposium, San Juan, PR, September 2005.
50. Leggett, C.; Courtney, J.; Thomas, E.; Winfield, L. Synthesis of Benzimidazole Derivatives. Model Institutes of Excellence Research Day, Spelman College, Atlanta, GA, April 2004.
51. Robinson, C.; Courtney, J.; Thomas, E.; Winfield, L. Synthesis of *N*-(2-nitrophenyl)aniline Derivatives. Model Institutes of Excellence Research Day, Spelman College, Atlanta, GA, April 2004.



## SCHOLARSHIP

FUNDING (Total funding = \$19.93 million awarded)

### EXTERNALLY FUNDED GRANTS FOR CHEMISTRY EDUCATION RESEARCH AND PRACTICE

7/1/23 – 6/30/26, Co-PI (PI, Davita Camp), **Amount Awarded: \$399,687**. Reimagining Organic Chemistry Labs in Education Systems (ROLES). NSF IUSE Project. Award No. 2315607.

7/1/19 – 6/30/22, Co-PI (PI, Shanina Sanders), **Amount Awarded: \$399,450**. *Nurturing Science Identity through Culturally Relevant Organic Chemistry Laboratories*. NSF Historically Black Colleges and Universities – Undergraduate Program Targeted Infusion Project. Award No. HRD-1912385

1/01/18 – 12/31/18, Co-PI (PI, Shanina Sanders), **Amount Awarded: \$37,950**. *Increasing Diversity in the STEM Pipeline through the Incorporation of Culturally and Socially Responsive Pedagogy in the Organic Chemistry Laboratory*. Associated Colleges of the South. Award No. NA

8/01/16 – 7/31/20, PI, **Amount Awarded: \$1,166,830**. *Student Engagement in a Community-based, Blended Learning Environment: Perspectives from a Minority-Serving Institution*. NSF Improving Undergraduate STEM Education: Education and Human Resources. Award No. 1626002

8/1/13 – 2/28/19, PI, **Amount Awarded: \$478,567**. *Implementation and Assessment of Blended Learning First and Second Year Chemistry Courses at Spelman College*. NSF Historically Black Colleges and Universities – Undergraduate Program Targeted Infusion Project. Award No. HRD-1332575

4/1/12 – 3/31/15, Co-PI (PI, Paramjit Arora), **Amount Awarded: \$15,000**. *The Development of Project-based and Computational Laboratories for Medicinal Chemistry. (Main Grant: A Systematic Approach to Targeting Protein Interfaces with Nonpeptidic Helix Mimetics – PIs: Arora and Bonneau)*, NSF. Award No. CHE1151554 – Education Supplement

2/1/09 – 2/31/13, Co-PI (PI, Paramjit Arora), **Amount Awarded: \$10,000**. *The Development of Project-based and Computational Laboratories for Medicinal Chemistry. (Main Grant: Nonpeptidic Alpha-Helix and Beta-Strand Mimetics – PI: Arora)*, NSF Award No. CHE0848410 – Education Supplement

### EXTERNALLY FUNDED GRANTS FOR BROADENING PARTICIPATION

9/1/19 – 8/31/21, Collaborator (PI, Regina McClinton, Michigan), **Amount Awarded: \$30,040**. *Establishing Pipeline Programs with HBCUs for Graduate Student Recruitment*. The University of Michigan MSI Collaboration and Implementation Grant. 2019. Award No. NA

9/15/17 – 8/31/19, Key Personnel (PI, Keivan Stassun, Vanderbilt), **Amount Awarded: \$298,416**. *Southeastern Compact for Inclusive Student Transitions in Engineering and Physical Sciences*. NSF Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science. Award No. 1744440

12/01/16 – 11/30/17, Key Personnel (PI, Grant Warner, Howard), **Amount Awarded: \$35,000**. *I-Corps Site Partnering with the Atlanta University Center Consortium*. NSF Innovation Corps. Award No. 1663720



9/25/13 – 3/31/14, Co-PI (PI, Kimberly Jackson), **Amount Awarded: \$233,750.** *Women of Color Legacy Project.* National Institute of Health Planning Grants for the NIH Building Infrastructure Leading to Diversity Initiative (P20). Award No. 1P20MD008719-01

9/1/07 – 8/31/12, Key Personnel (PI, Johnella Butler), **Amount Awarded: \$2,539,248.** ASPIRE (Advancing Spelman College's Participation in Informatics Research and Education) Project. NSF Historically Black Colleges and Universities – Undergraduate Program Implementation Project. Award No. 071455

### EXTERNALLY FUNDED GRANTS FOR DRUG DESIGN AND ORGANIC SYNTHESIS

1/1/10 – 12/31/12, Co-PI (PI, Michael Burns-Kaurin), **Amount Awarded: \$250,000.** *Synthesis and Structural Analysis of Organic Light-Emitting Devices.* Department of Energy Samuel P. Massie Chair of Excellence Program Grant Program. Award No. DE-FG52-09NA29518 – Sub-project

6/1/09 – 5/31/10, PI, **Amount Awarded: \$5,000.** *Synthesis and Purification of Aniline Derivatives.* Teledyne ISCO Organic Synthetic Chemistry Grant. Award No. 2985

6/1/09 – 7/31/09, PI, **Amount Awarded: \$2,800.** *Synthesis of Benzimidazole Derivatives.* ACS Project SEED Award. Award No. NA

6/1/08 – 5/31/09, PI, **Amount Awarded: \$4,000.** *Microwave-Assisted Organic Synthesis in the Preparation of Aniline Derivatives.* CEM Corporation Microwave-Enhanced Grant. Award No. NA

5/4/07 – 5/3/08, PI, **Amount Awarded: \$5,000.** *Synthesis of Potential PDK1 Inhibitors.* Teledyne Isco: Organic Synthetic Chemistry Grant. Award No. 2425

9/1/07 – 8/31/12, PI, **Amount Awarded: \$673,066.** *The Effects of Potential PDK1 Inhibitors on Metastatic Cancer in African- Americans.* National Institute of Health/National Center on Minority Health and Health Disparities: Research Infrastructure in Minority Institutions. Award No. 5p20md000215-07002 – Sub-project

### EXTERNALLY FUNDED GRANTS AND GIFTS FOR LEADERSHIP ACTIVITIES

129/1/2322 – 8/31/25, PI, Amount Awarded: \$150,000. Estee Lauder Companies Foundation.

12/1/23, PI, Amount Awarded: \$9,000. Grants for Educational Institutions (for building strategic initiatives that advance Cosmetic Science). New York Society of Cosmetic Chemist. Award No. NA

11/22/23 – 11/21/26, PI, **Amount Awarded: \$1,000,000.** Translating Spelman's Success to Advance Black Women in STEM. Gordon and Betty Moore Foundation., Award No. #12484.

6/1/23 –, PI, **Amount Awarded: \$100,000.** PATTERNS. Award No. NA

9/1/22 – 8/30/28, PI, **Amount Awarded: \$5,659,478.** Training Women of Color in STEM at Spelman College. Simons Foundation. Award No. #1011465.

9/1/23 – 1/31/26, PI, **Amount Awarded: \$1,000,000.** Department of Education, Congressionally-directed funding for technology modernization initiatives. Award No. P116Z220174.

9/1/21 – 8/31/24, PI, **Amount Awarded: \$1,000,000.** Bloomberg Philanthropies. Johns Hopkins University-Vivian Thomas Scholars. Award No. NA



7/7/21 – 7/7/25, Senior Personnel (PI, Marta Dark), **Amount Awarded: \$4,000,000**. IBM Quantum Center. Award No. NA

4/1/17 – 12/31/21, PI, **Amount Awarded: \$239,173**. *Broadening Participation in Life STEM Workshop*. RAPID: NSF Division of Research on Learning in Formal and Informal Settings – Discovery Research K-12. Award No. 1739251

8/15/16 – 5/31/17, PI, **Amount Awarded: \$50,000**. *SpelBots Scholarship Support*. The Boeing Company. Award No. NA

8/01/16 – 7/31/18, PI, **Amount Awarded: \$190,000**. Spelman College STEM Scholars and Leadership Program (Renewal). Department of Energy. Award No. DE-ED0000362

8/01/16 – 7/31/17, PI, **Amount Awarded: \$10,000**. Spelman College GSGC LINCS Scholars. 2015-16 Georgia Space Grant Consortium Proposal. Award No. NA

03/01/13, PI, **Amount Awarded: \$1,000,000**. Sheares Family Endowment. Award No. NA

### INTERNALLY FUNDED GRANTS

8/1/08 – 7/31/09, PI, **Amount Awarded: \$2,000**. *Medicinal Chemistry*. Advancing Spelman's Participation in Informatics Research and Education Seed Award: Curriculum Development Award. Award No. NA

7/1/05 – 6/30/06, PI, **Amount Awarded: \$75,000**. *The Optimization of Benzimidazole Derivatives, Potential Anti-proliferation Agents*. National Institute of Health/National Center on Minority Health and Health Disparities: Minority Institutions Award. Award No. NA

10/1/03 – 9/30/04, PI, **Amount Awarded: \$75,000**. *Design, Synthesis, and Pharmacological Evaluation of Novel Isoquinoline Derivatives as Potential Cyclooxygenase-2 Inhibitors and Cytotoxins of Tumor Cells*. National Institute of Health/National Center on Minority Health and Health Disparities: Minority Institutions Award. Award No. NA

### PATENTS

1. Winfield, L. Synthesis and Anti-Proliferative Effect of Substituted Imidazo[4,5-B]Pyrazine Compounds. U.S. Pat. No. 8,362,019. Issue Date: January 29, 2013.
2. Winfield, L. Synthesis and Anti-Proliferative Effect of Substituted Purine Compounds. U.S. Pat. No. 8,357,691. Issue Date: January 22, 2013.
3. Winfield, L. Synthesis and Anti-Proliferative Effect of Substituted Imidazo[4,5-B]Pyridine Compounds. U.S. Pat. No. 8,334,302. Issue Date: December 18, 2012.
4. Winfield, L. Synthesis and Anti-Proliferative Effect of Substituted Imidazo[4,5-C]Pyridine Compounds. U.S. Pat. No. 8,329,728. Issue Date: December 11, 2012.
5. Winfield, L. Syntheses and Anti-Proliferative Effects of 1-Aryl-substituted Benzimidazole Derivatives. U.S. Pat. No. 8,106,084. Issue Date: January 31, 2012.
6. Winfield, L. Syntheses and Anti-Proliferative Effects of Benzimidazole Derivatives. U.S. Pat. No. 7,947,723 B2. Issue Date: May 24, 2011.



## BOOKS (\* = corresponding/lead editor; ACS = American Chemical Society)

1. *Growing Diverse STEM Communities: Methodology, Impact, and Evidence*. Winfield, L.\*; Wilson-Kennedy, Z.; Thomas, G.A.; and Watkins, L.; Eds. ACS Publications, 2019. DOI: 10.1021/bk-2019-1328.
2. Winfield, L.\* *An Interactive Guide to Organic Chemistry*, Kendall Hunt, 2012. ISBN: 978-1-4652-0679-4.
3. Carroll, W.\*; Foster, B.; Barkley, E.; Cook, S.; Fivizzani, K.; Izzo, R.; Jacobson, K.; Maupins, K.; Moley, K.; Ogle, R.; Palassis, J.; Phifer, R.; Reinhardt, P.; Thompson, L.; Winfield, L. *Prudent Practices in the Laboratory: An Update*. National Academy Press, 2011. DOI: 10.17226/12654.

## BOOK CHAPTERS (\* = corresponding author; ACS = American Chemical Society)

1. Winfield, L.\* In the Rhythm of Agency. In *African American Chemists: Academia, Industry, and Social Entrepreneurship*. Collins, S., Ed. ACS Publications, 2021; 117 – 129 pp. DOI: 10.1021/bk-2021-1381.ch011
2. Winfield, L.\*; Hibbard, L.; Jackson, K.; Sanders, S. *Cultivating Agency through the Chemistry and Biochemistry Curriculum at Spelman College*. In *Broadening Participation in STEM – Effective Pedagogies and Programs for Women and Minorities*; Byrd G., Kennedy E., Frierson H., Eds. Emerald Publishing Limited, 2019; 153 – 182 pp. DOI: 10.1108/S1479-364420190000022007.
3. Winfield, L.\* Finding Rhythm. In *Mom the Chemistry Professor: Personal Accounts and Advice from Chemistry Professors Who are Mothers*, 2<sup>nd</sup> edition; Cole R., Marzabadi C., Webster G., Eds.; Springer, 2018; 539 – 551 pp. DOI: 10.1007/978-3-319-78972-9.
4. Winfield, L.\* An Evolving Voice in Leadership. In *Women Called to Lead: Empowering Women of Color in Academic Leadership*; Engerman K., Luster-Teasley S. Eds.; Fielding University Press: Santa Barbara, CA, 2017; 118 – 128pp. ISBN-13: 978-1-544-28290-9.

## EDITED JOURNAL ISSUES (\* = corresponding/lead editor)

1. Winfield, L. and Outlaw, S.; Eds. Understanding Interventions 2023, 14 (2). <https://www.understandinginterventionsjournal.org/issue/8394>
2. Winfield, L. and Outlaw, S.; Eds. Understanding Interventions 2023, 14 (1). <https://www.understandinginterventionsjournal.org/issue/8238>
3. Special Issue on Diversity, Equity, Inclusion and Respect in Chemistry Education Research and Practice. Winfield, L.\*; Wilson-Kennedy, Z.; Payton-Stewart, F.; Nielson, J.; Kimble-Hill, A.; Arriaga, E.; Eds. *Journal of Chemical Education* **2022**. 99 (1), 1 - 518.
4. Winfield, L. and Outlaw, S.; Eds. Understanding Interventions 2022, 13 (2). <https://www.understandinginterventionsjournal.org/issue/7089>
5. Winfield, L. and Outlaw, S.; Eds. Understanding Interventions 2022, 13 (1). <https://www.understandinginterventionsjournal.org/issue/4446>



## CHEMISTRY EDUCATION RESEARCH AND PRACTICE

1. Winfield, L.; Tomlinson, C.; Ingram, J.; Arriaga, E.\* Roots of Innovation in Analytical Chemistry. *Annual Review Analytical Chemistry* (invited, in preparation)
2. Ballard, J.; Winfield, L.\* A Glimpse of Social Presence during an Organic Chemistry Group Activity. *Frontiers in Education* **2024**, 9, 1357796. DOI: [10.3389/feduc.2024.1357796](https://doi.org/10.3389/feduc.2024.1357796)
3. Ballard, J.; Gamage, S. K.; Winfield, L.\*; Mooring, S.\* Cognitive Discourse During a Group Quiz Activity in a Blended Learning Organic Chemistry Course. *Chemistry Teacher International* **2023**. DOI: [10.1515/cti-2023-0007](https://doi.org/10.1515/cti-2023-0007).
4. Younge, S.; Dickens, D.; Winfield, L.; Sanders Johnson, S.\* Moving Beyond the Experiment to See Chemists Like Me: Cultural Relevance in the Organic Chemistry Laboratory, *Journal of Chemical* **2022**, 99 (1), 383 – 392. DOI: [10.1021/acs.jchemed.1c00488](https://doi.org/10.1021/acs.jchemed.1c00488).
5. Sanders Johnson, S.\*; Winfield, L.; Sung, S. Integrating iSpartan into a Classic Organic Chemistry Laboratory Experiment. *Journal of Chemical Education* **2021**, 98 (3), 982 – 985. DOI: [10.1021/acs.jchemed.0c01134](https://doi.org/10.1021/acs.jchemed.0c01134).
6. Leontyev, A.\*; Houseknecht, J.; Maloney, V.; Muzyka, J.; Rossi, R.; Welder, C.; Winfield, L. OrganicERs: Building a Community of Practice of Organic Chemistry Instructors through Workshops and Web-based Resources. *Journal of Chemical Education* **2020**, 97 (1), 106-111. DOI: [10.1021/acs.jchemed.9b00104](https://doi.org/10.1021/acs.jchemed.9b00104)
7. Winfield, L.\*; McCormack, K.; Shaw, T.\*\* Using iSpartan to Support a Guided-Inquiry Activity on Alkane Conformations. *Journal of Chemical Education* **2019**, 96 (1), 89– 92. DOI: [10.1021/acs.jchemed.8b00145](https://doi.org/10.1021/acs.jchemed.8b00145)
8. Winfield, L.\*; Gregory-Bass, R.; Campbell, J.\*\*; Watkins, A. Characterizing Ligand Interactions in Wild-type and Mutated HIV-1 Proteases. *Journal of Computational Science Education* **2014**, 5 (1), 1 – 9. DOI: [10.22369/issn.2153-4136/5/1/1](https://doi.org/10.22369/issn.2153-4136/5/1/1)
9. Winfield, L.\* Nucleophilic Aromatic Substitution, a Guided Inquiry Laboratory Experiment. *Chemical Educator* **2010**, 15, 110 – 112. DOI: [10.1333/s00897102211a](https://doi.org/10.1333/s00897102211a).

## BROADENING PARTICIPATION

10. Davis, R.; Wilson-Kennedy, Z.\*; Winfield, L.; Spivak, D. The Role of International Research Experiences in the Development of Women of Color in Science. *Journal of Chemical Education* **2022**, 99 (1), 104 – 112. DOI: [10.1021/acs.jchemed.1c00518](https://doi.org/10.1021/acs.jchemed.1c00518).
11. Jackson, K.\*; Winfield, L. Realigning the Crooked Room: Spelman Claims a Space for African American Women in STEM. *Peer Review* **2014**, 16 (2).



## DRUG DESIGN AND ORGANIC SYNTHESIS

- Gregory-Bass, R.; Winfield, L.\* Preliminary Analysis of Anti-Proliferative, Apoptotic, and Anti-Migratory Effects LLW-3-6 in SKOV-3 Ovarian Cystadenocarcinoma Cell Line. *Letters Drug Design Discovery* **2020**, *17*, 10. DOI: 10.2174/1570180817666200129142949.
- Yerokun, T.; Winfield, L.\* Celecoxib and LLW-3-6 Reduce Survival of Human Glioma Cells Independently and Synergistically with Sulfasalazine. *Anticancer Research* **2015**, *35* (12), 6419 – 6424. ISSN: 0250-7005.
- Yerokun, T.; Winfield, L.\* LLW-3-6 and Celecoxib Impacts Growth in Prostate Cancer Cells and Subcellular Localization of COX-2. *Anticancer Research* **2014**, *34* (9), 4755 – 4760. ISSN: 0250-7005.
- Payton-Stewart, F. Tilghman, S.; Williams, L.; Winfield, L.\* Benzimidazoles Diminish ERE Transcriptional Activity and Cell Growth in Breast Cancer Cells. *Biochemical and Biophysical Research Communications* **2014**, *450* (4), 1358 – 1362. DOI: 10.1016/j.bbrc.2014.06.130.
- Winfield, L.\*; Payton-Stewart, F. Celecoxib and Bcl-2: Emerging Possibilities for Anticancer Drug Design. *Future Medicinal Chemistry* **2012**, *4* (3), 361 – 383. DOI: 10.4155/fmc.11.177
- Winfield, L.\*; Inniss, T.; Smith, D. Structure-Activity Relationship of Anti-Proliferative Agents Using Multiple Linear Regression. *Chemical Biology Drug Design* **2009**, *74* (3), 309 – 316. DOI: 10.1111/j.1747-0285.2009.00863.x
- Winfield, L.\*; Smith, D.; Halemano, K.; Leggett, C.\*\* A Preliminary Assessment of the Structure-Activity Relationship of Benzimidazole-based Anti-Proliferative Agents. *Letters Drug Design Discovery* **2008**, *5* (6), 369 – 376. DOI: 10.2174/157018008785777324
- Mateeva, N; Winfield, L.; Redda, K.\* The Chemistry and Pharmacology of Tetrahydropyridines. *Current Medicinal Chemistry* **2005**, *12* (5), 551 – 571. DOI: 10.2174/0929867053362776
- Winfield, L.; Zhang, C.; Reid, C.; Stevens, E.; Trudell, M.\*; Izenwasser, S.; Wade, D. Synthesis, Lipophilicity and Structure of 2,5-Disubstituted 1,3,5-Dithiazine Derivatives. *Journal of Heterocyclic Chemistry* **2003**, *40* (5), 827 – 832. DOI: 10.1002/jhet.5570400512
- Xu, L.; Izenwasser, S.; Katz, J. L.; Kopajtic, T.; Klein-Stevens, C.; Zu, N.; Lomenzo, S. A.; Winfield, L.; Trudell, M. L.\* Synthesis and Biological Evaluation of 2-Substituted 3 $\beta$ -Tolyltropane Derivatives at Dopamine, Serotonin, and Norepinephrine Transporters. *Journal of Medicinal Chemistry* **2002**, *45* (6), 1203 – 1210. DOI: 10.1021/jm010453u
- Winfield, L.; Izenwasser, S.; Wade, D.; Trudell, M. L.\* Synthesis and Dopamine Transporter Binding Affinity of 2,6-Dioxopiperazine Analogs of GBR 12909. *Medicinal Chemistry Research* **2002**, *11* (2), 102 – 115. ISSN: 10542523

## PROCEEDINGS & OTHER PUBLICATIONS

### CHEMISTRY EDUCATION RESEARCH AND PRACTICE

- Winfield, L.\*; Sanders, S.; Thrill, C. Reflecting on Teaching Presence While Transitioning to Remote Instruction, *Science Education and Civic Engagement* **2020** (2), 79 – 81.



- Winfield, L.\*; Sanders, S.; Thrill, C. Self-Regulated Learning in Organic Chemistry. *Critical Conversations and the Academy, NETWORK: A Journal of Faculty Development*, Fall 2019.
- Winfield, L.\* Inquiry Learning: Empowering African American Women in STEM. *Research OUT-REACH* **2019**, 107.
- Winfield, L.\*; Hibbard, L.; Fullilove, F. Engineering Course Success Through Interactive Engagement. *Teaching a New Generation of Students, NETWORK: A Journal of Faculty Development*, Fall 2016.
- Winfield, L.\* Community-based Interactive Engagement in an Organic Chemistry Course. In *Proceedings of the 8th International Conference of Education, Research and Innovation (ICERI)*, IATED Academy **2015**, 2502 – 2508.
- Winfield, L.\*; Jackson, K.; Jeilani, Y.; Sanders, S.; Thompson, A. Promoting Global Engagement in Chemistry. The Global Imperative for Higher Education, *NETWORK: A Journal of Faculty Development*, Fall 2015.
- Holmes, M.; Harris, S.; Gregory-Bass, R.; Winfield, L.\* Leveraging HIV in Curricular Innovation at Spelman. *Emerging Pedagogies for the New Millennium, NETWORK: A Journal of Faculty Development*, Fall 2011.

## BROADENING PARTICIPATION

- Pai, A., Eck, K., Renoe, S., Brown Clarke, J., Brown, B., Coley, C., Collier-Youngblood, M., Fields, H., Hammonds-Odie, L., Hendrickson, T., Hollowell, G., Huizinga, D., Inniss, T., Maglia, A., Nader, R., Talley, C., Vassmer, S., Washington, T., Weintraub, J., Williams, K., Winfield, L. (2024) *Strategies for Building Capacity at Minority Serving Institutions for Advancing Research and Research Impacts*. DOI: 10.32469/10355/98061.
- Wilson-Kennedy, Z.; Winfield, L.\*; Nielson, J.; Arriaga, E.; Kimble-Hill, A.; Payton-Stewart, F. Introducing the Journal of Chemical Education's Special Issue on Diversity, Equity, Inclusion, and Respect in Chemistry Education Research and Practice. *Journal of Chemical Education* **2021**. DOI: 10.1021/acs.jchemed.1c01219.
- Wilson-Kennedy, Z.\*; Payton-Stewart, F.; and Winfield, L. Towards Intentional Diversity, Equity, and Respect in Chemistry Research and Practice. *Journal of Chemical Education* **2020**, 97, 2041 – 2044. DOI: 10.1021/acs.jchemed.0c00963.
- Winfield, L.\*; Nicholson, C. Seeing the Invisible Scientist. Alumni Profiles and Perspectives on STEM and the Impact of Undergraduate Research at Spelman College, **2018**. ISBN: 978-1-7923-4465-7
- Jackson, K.\*; Winfield, L. Hope for a New Paradigm: Perspectives on Black Lives Matter from Two Black Women Scientists. *Catalyst: Feminism, Theory, Technoscience* **2017**, 3, 8 – 9.

## SYMPOSIA AND PROFESSIONAL MEETINGS ORGANIZED (ACS = American Chemical Society)

### CHEMISTRY EDUCATION RESEARCH AND PRACTICE

- Culturally Relevant and Inclusive Chemistry Curriculum and Pedagogies. Organized in collaboration with Shanina Sanders and Jennifer Muzyka. Biennial Conference on Chemical Education, West Lafayette, IN, July 2022.





2. Equitable chemistry learning environments. Organized in collaboration with Zakiya Wilson (Louisiana State University). The International Conference on Chemical Education, Cape Town, South Africa, July 2022.
3. 2021 Active Learning in Organic Chemistry Workshop. Organized in collaboration with the OrganicERs Leadership Board. Online, June 2021.
4. Active Learning in Organic Chemistry. Organized in collaboration with Mathew Casselman (University of California Riverside). Online, 260<sup>th</sup> ACS National Meeting, August 2020.
5. Start here! A chemistry perspective on nurturing students' metacognition. *Transforming STEM Higher Education* conference, the American Association of Colleges and Universities, Atlanta, GA, November 2019.
6. Workshop for Culturally Responsive and Socially Responsible Teaching in Organic Chemistry. Organized in collaboration with Shanina Sanders. Associated Colleges of the South. Atlanta, GA, June 2018.
7. Rules of Engagement: Effective Student Interactive Engagement that Promotes Learning. Organized in collaboration with Lisa Hibbard. The Biennial Conference on Chemical Education, University of Northern Colorado. Greeley, CO, August 2016.

## **BROADENING PARTICIPATION**

8. Making Strides in Shifting Paradigms within Chemistry Education Research and Practice. Organized in collaboration with Zakiya Wilson (Louisiana State University) for the Southwest Regional Meeting of the ACS. Baton Rouge, LA, November 2022.
9. Developing Publications for the Dissemination of Efforts that Broaden Participation in STEM. Organized in collaboration with Understanding Interventions. Chapel Hill, NC, December 17 – 19, 2021.
10. Developing Publications for the Dissemination of Efforts that Broaden Participation in STEM. Organized in collaboration with Understanding Interventions. Online, October 21 – 22, 2021.
11. Understanding Interventions that Broaden Participation in the Chemistry Enterprise. Organized in collaboration with Understanding Interventions. Resilience of Chemistry, The Fall 2021 National Meeting of the ACS. Online, August 22 – 26, 2021.
12. Planning Committee, virtual Workshop on Diversity, Equity, and Inclusion in Chemistry and Chemical Engineering. Organized in collaboration the Chemical Sciences Roundtable (CSR) of the National Academies of Sciences, Engineering, and Medicine. Online, May 25 – 26, 2021.  
<https://www.nap.edu/download/26334>
13. Developing Publications for the Dissemination of Efforts that Broaden Participation in STEM. Organized in collaboration with Understanding Interventions. Online, April 22 – 24, 2021.
14. Creating an Inclusive and Resilient Future in Chemistry Education. Organized in collaboration with Zakiya Wilson (Louisiana State University). ACS Webinar, February 10, 2021.
15. Diversity in the Chemical Enterprise: Women Chemist of Color in the Southeast. Organized in collaboration with Zakiya Wilson (Louisiana State University). 70<sup>th</sup> Southeastern Regional Meeting of the ACS, Augusta, GA, November 2018.



16. My Narrative, STEM Writing Working Group. Newark, NJ, October 2018.
17. Women of Color in the Academy: Empirical Studies & Models of Success. Organized in collaboration with Zakiya Wilson (Louisiana State University), Gloria Thomas (Louisiana State University), Linnette Watkins (James Madison University). 256<sup>th</sup> ACS National Meeting, Boston, MA, August 2018.
18. Broadening Participation in STEM: Empirical Studies & Models of Success, Improving Participation through Programmatic and Curricular Efforts. Organized in collaboration with Zakiya Wilson (Louisiana State University), Gloria Thomas (Louisiana State University), Linnette Watkins (James Madison University). 256<sup>th</sup> ACS National Meeting, Boston, MA, August 2018.
19. Broadening STEM Participation through Minority Serving Institutions Outreach Workshops. Organized in collaboration with MERA and Quality Education for Minorities. Atlanta, GA, June 2017.
20. Active Learning in Organic Chemistry Miniworkshop. presented in collaboration with Justin Houseknecht (Wittenberg), Alexey Leontyev (Adams State), Jennifer Muzyka (Centre College), Cathy Welder (Dartmouth College). Atlanta, GA, June 2017.
21. Research Development and Grant-seeking Workshop. Organized in collaboration with Claudia Scholz (Office of Sponsored Programs), Shafiq A. Khan and Travis Patton (Clark Atlanta), Michael Hodge, and Doreen Stevens (Morehouse), and Beatrice Raiford and Shelia McClure (Morehouse School of Medicine). Clark Atlanta University, Atlanta, GA, January 2017.
22. Georgia-Alabama Louis Stokes Alliance Scholars Workshop. Organized in collaboration with Conrad Ingram (Clark Atlanta). Spelman College. Atlanta, GA, October 2016.
23. Plugging the Leak: Increasing Access and Improving Persistence of Underrepresented Groups in Chemistry and Related Disciplines. presented in collaboration with Lisa Hibbard. Biennial Conference on Chemical Education, Grand Valley State University. Grand Valley, MI, August 2014.

## INVITED ORAL PRESENTATIONS AND PANELS

### CHEMISTRY EDUCATION RESEARCH AND PRACTICE

1. Winfield, L. The Beauty of Agency. CASCC
2. Winfield, L. Fostering STEM Success Through Culturally Relevant Pedagogies. ChemConnects Lecture, Duke University, January 25, 2024. (postponed)
3. Winfield, L. The Beauty of Agency. Faculty Institute, Dillard University. August 7, 2023. **plenary**
4. Winfield, L. Representation and Decolonization in Chemical Education. The Southwest Regional Meeting of the American Chemical Society, November 2022.
5. Winfield, L. Community-based Projects in Analytical Chemistry Undergraduate Curriculum and Beyond. Online, ACS Division of Analytical Chemistry, June 26, 2022.
6. Winfield, L. Culturally Relevant Pedagogies, Strategies for Emerging Scholars and Leaders. FLAMENet (Factors Affecting Learning, Attitudes, and Mindset in Education Network), May 2022. **keynote**



7. Winfield, L. Structured Collaborative Learning to Promote Metacognition and Cognitive Discourse in the Undergraduate Organic Chemistry Curriculum. Purdue University's Chemistry Department Seminar Series. October 28, 2020.
8. Winfield, L. Structured Collaborative Learning to Promote Metacognition and Cognitive Discourse in the Undergraduate Organic Chemistry Curriculum. New York University Virtual Chemistry Department Colloquium. October 16, 2020.
9. Winfield, L. Efforts to Internationalized the STEM Curriculum at Spelman. "Advancing International Research Experiences for Students Panel," Emerging Researchers National Conference, American Association for the Advancement of Science, Washington, DC, February 2020.
10. Winfield, L. ACS Women Chemistry Committee Panel. 257<sup>th</sup> ACS National Meeting, Orlando, FL, April 2019.
11. Winfield, L. Creating Structured Community-based Learning Through Workshops: A platform for understanding learner agency among African American women in STEM. Chemical Education Research and Practice, Gordon Research Conference, Lewiston, ME, June 2017.
12. Winfield, L. Connecting Efforts to Provide Global Experiences in Chemistry. presented by at "Broadening Participation in Global Chemistry Experiences: Why Engaging Diverse Chemistry Communities in Global Research is Critical," 252<sup>nd</sup> ACS National Meeting, Philadelphia, PA, August 2016.
13. Winfield, L.; McCormack, K.; Shaw, T. iSpartan Enabled Visualization of Alkane Conformations. Biennial Conference on Chemical Education, University of Northern Colorado, Greeley, CO, August 2016.

## BROADENING PARTICIPATION

14. Winfield, L. Becoming a Culturally Relevant Educator. Fostering Inclusivity and Respect in Science Together
15. Winfield, L. Representation and Decolonization in Chemical Education. University of Virginia, January 2024. (postponed)
16. Williams-Thomas, L.; Winfield, L.; Brown, A. *Celebrating Women in Cosmetic Science. The National Organization of Black Chemists and Chemical Engineers National Meeting*, September 2023.
17. Winfield, L. Becoming a Culturally Relevant Educator. Fostering Inclusivity and Respect in Science Together (First), HHMI Inclusive Excellence, Davidson College, September 29, 2022.
18. Winfield, L. Diversity, Equity, Inclusion, and Respect (DEIR) for Emerging Leaders. ACS Leadership Institute, May 20, 2022.
19. Winfield, L. SAWISA-HU Women in STEM Webinar is "Advancing diversity through the inclusion of women in STEM fields and organisations." Organized by Durban Institute of Science and Technology and the Department of Science and Technology (South Africa), Online, November 2021.
20. Winfield, L. Access, Agency, and Advancing Black Women in STEM. Black Chemist Week. August 9, 2021. **keynote**



21. Winfield, L. Forum on Diversity, Inclusion, and Respect. Organized by the ACS Division of Professional Relations, Committee on Minority Affairs, and Office of Diversity Programs, Online, June 2020.
22. Winfield, L. Advancing Women of Color in STEM Careers. South African Workshop for Historically Disadvantaged Women, National Academy of Science, Washington, DC, October 2017.
23. Winfield, L. Building Funding Capacity Through Leadership. Center for the Advancement of STEM Leadership, Leadership Institute, Atlanta, GA, October 2017.
24. Johnson, O.; Winfield, L. Broadening Participation Theory Operationalized. Quality Education for Minorities Network/Mera Workshop Series for the NSF's LifeSTEM Programs, Webinar, September 2017.
25. May, W.; Winfield, L.; Chan, B.; Crawford, M. Interactive Panel 1: Mentoring Chemistry Students of Color. Zakiya Wilson (moderator). Investing in the Future, the 254<sup>th</sup> ACS National Meeting, Washington, D.C., August 2017.
26. Jackson, K.; Winfield, L. Advancing Gender Equity in STEM: A Conversation Between Two Chemists. presented in partnership with the National Museum of Nuclear Science & History and Sandia National Laboratories, Albuquerque, NM, July 2016.
27. Winfield, L. Impact of HBCU-UP Funding at Spelman College. NSF, Arlington, VA, February 2015.
28. Winfield, L.; Ware, R. Leadership: Your Style. Leadership Empowerment Retreat: Transformational Leadership Retreat, Clayton, GA, October 2013.
29. Winfield, L. Research Environment, Undergraduate Training, and Outreach at Spelman College. CAPS – ATL STEM Summit: Re-Purposing for the Future, Milledgeville, GA, July 2013.
30. Winfield, L. Developing a Process for Evaluating Existing Programs and Developing New Ones. Workshop for Department and Division Chairs, The Council of Independent Colleges, Albuquerque, NM, June 2013.
31. Winfield, L. Preparing for a Career in Academia. National Organization for the Professional Advancement of Black Chemists and Chemical Engineers Southwest Regional Conference, New Orleans, LA, November 2004.
32. Winfield, L. Promoting Chemistry as a Career Path for African Americans. Department of Chemistry Seminar Series, Dillard University, New Orleans, LA, April 2002.

## **DRUG DESIGN AND ORGANIC SYNTHESIS**

33. Winfield, L. Synthesis and MicroRNA Inhibition of Benzimidazole Molecules. South African Workshop for Historically Disadvantaged Women. East London, South Africa, February 2020.
34. Winfield, L. My Journey to Now: Perspectives on Drug Design. REBUILD Detroit, University of Detroit Mercy, Detroit, MI, April 2018.
35. Winfield, L. Developing Small Molecules in an Undergraduate Setting. 2018 Research Day, College of Pharmacy, University of Michigan, Ann Arbor, MI, March 2018.



36. Winfield, L.; Yerokun, T. Treatment Outcomes of LLW-3-6 in Prostate and Brain Cancer Cells. Department of Medicinal Chemistry, College of Pharmacy, University of Michigan, Ann Arbor, MI, April 2015.
37. Winfield, L. Novel Celecoxib Derivatives That Inhibit Growth in MCF-7 Human Breast Cancer Cell Line. Department of Chemistry Seminar Series, Xavier University, New Orleans, LA, November 2011.
38. Winfield, L. Novel Celecoxib Derivatives That Inhibit Growth in MCF-7 Human Breast Cancer Cell Line. Organic Chemistry Seminar Series, Louisiana State University, Baton Rouge, LA, November 2011.
39. Winfield, L. Drug Design Research at a Primarily Undergraduate Institution. Herty Medalist Undergraduate Research Symposium, Georgia Local Section of the ACS, Atlanta, GA, August 2009.
40. Winfield, L. Potential Anti-Proliferation Agents. Vanderbilt – Ingram Cancer Center, Vanderbilt University, Nashville, TN, May 2004.
41. Winfield, L. Design, Synthesis, and Dopamine Transporter Binding Affinity of GBR 12909 Analogs. College of Pharmacy and Pharmaceutical Science Seminar Series, Florida Agricultural and Mechanical University, Tallahassee, FL, May 2002.
42. Winfield, L. Design, Synthesis, and Dopamine Transporter Binding Affinity of 2,6-Dioxopiperazine Analogs of GBR 12909. Department of Chemistry Seminar Series, Dillard University, New Orleans, LA, February 1999.

## CONTRIBUTED ORAL PRESENTATIONS (ACS = American Chemical Society)

### CHEMISTRY EDUCATION RESEARCH AND PRACTICE

1. Winfield, L. Connecting differently: Creating community and facilitating engagement online. The Atlantic Basin Conference on Chemistry, Marrakech, Morocco, December 2022. (*withdrawn*)
2. Winfield, L. Feminist Pedagogy in the Chemistry Curriculum. The International Conference on Chemical Education, Cape Town, South Africa, July 2022.
3. Winfield, L. Representation and Decolonization in Chemical Education. The International Conference on Chemical Education, Cape Town, South Africa, July 2022.
4. Sanders, S.; Winfield, L. Nurturing science identity through culturally relevant organic chemistry laboratories. 262<sup>nd</sup> ACS National Meeting, Atlanta, GA, August 2021.
5. McNair, L.; Galvao, T; Winfield, L. Enhancing STEM Learning for Women and Students of Color Through Technology. Engaged STEM Learning: From Promising to Pervasive Practices, Association of American Colleges and Universities, Miami, FL, March 2011.
6. Moley, K.; Thompson, L.; Winfield, L. "Prudent Practices in the Laboratory": Updates to Chapters on Working with Chemicals and Laboratory Equipment. 241<sup>st</sup> ACS National Meeting, Anaheim, CA, March 2011.
7. Winfield, L. Nucleophilic Aromatic Substitution: A Laboratory Project. 233<sup>rd</sup> ACS National Meeting, Chicago, IL, March 2007.



## BROADENING PARTICIPATION

8. Winfield, L.; Wilson-Kennedy, Z.; Outlaw, S. Being intentional and connected to advance efforts that broaden participation in chemistry. To be presented at the Atlantic Basin Conference on Chemistry, December 2022. (*withdrawn*)
9. Davis, R.; Wilson-Kennedy, Z.S.; Winfield, L.; Spivak, D. Role of International Research Experiences in the Development of Women of Color in Chemistry. Biennial Conference on Chemical Education, Purdue University, West Lafayette, IN, August 2022.
10. Winfield, L. History repeating: Spelman's legacy of cultivating agency in Black women in STEM through culturally relevant curriculum. 262<sup>nd</sup> ACS National Meeting, Atlanta, GA, August 2021.
11. Payton-Stewart, F.; Wilson-Kennedy, Z.; and Winfield, L. Inclusive Online Teaching: Toward More Impactful and Engaged Learning. 2021 American Association for the Advancement of Science Annual Meeting. Virtual, February 2021.
12. Winfield, L. "Finding Rhythm," Is There Really Such A Thing as Work-Life Balance? 256<sup>th</sup> ACS National Meeting, Boston, MA, August 2018.
13. Wilson-Kennedy, Z.; Watkins, L.; Winfield, L.; Thomas, G. Advancing the Success of Minorities in the Chemical Enterprise. 254<sup>th</sup> ACS National Meeting, Washington, DC, August 2017.
14. Winfield, L.; Jackson, K. Community: Promoting the Success of Students of Color in Graduate Programs. 253<sup>rd</sup> ACS National Meeting, San Francisco, CA, March 2017.
15. Winfield, L. Sustaining the Legacy: The Role of Spelman College in Diversifying the STEM Pipeline. Minority Serving Institutions and their Role in the STEM Pipeline at the 2013 Southeastern Regional Meeting of the ACS, Atlanta, GA, November 2013.
16. Winfield, L. Life in academia: Myths, Reality, and Resources. 237<sup>th</sup> ACS National Meeting, Salt Lake City, UT, March 2009.
17. Winfield, L. Life in academia: Myths, Reality, and Resources. 235<sup>th</sup> ACS National Meeting, New Orleans, LA, April 2008.
18. Winfield, L. Life in academia: Myths, Reality, and Mentoring. 233<sup>rd</sup> ACS National Meeting, Chicago, IL, March 2007.

## DRUG DESIGN AND ORGANIC SYNTHESIS

19. Winfield, L.; Payton-Stewart, F.; Tilghman, S. Novel Celecoxib Derivatives That Inhibit Growth in MCF-7 Human Breast Cancer Cell Line. Chemistry in Cancer Research: The Biological Chemistry of Inflammation as a Cause of Cancer, ACS and American Association for Cancer Research, San Diego, CA, February 2011.
20. Winfield, L.; Inniss, T. QSAR Analysis of Celecoxib Derivatives. Chemistry in Cancer Research: A Vital Partnership, ACS and American Association for Cancer Research, New Orleans, LA, February 2009.



## INTERNAL PRESENTATIONS AND LECTURES – UNIVERSITY OF MICHIGAN

### BROADENING PARTICIPATION

1. Winfield, L. Seeing the Invisible – Part 1 and 2. Department of Medicinal Chemistry, University of Michigan, Ann Arbor, MI, April 2018.
2. Winfield, L.; Ester, T.; Kent, R.; McIntee, F.; Graham, E. Tell Them We Are Rising, Completing the Story. Rackham Graduate School, University of Michigan, Ann Arbor, MI, March 2018.
3. Winfield, L.; Graham, E.; McClinton, R. Valuing Minority Serving Institutions. College of Pharmacy, University of Michigan, Ann Arbor, MI, December 2017.

## INTERNAL PRESENTATIONS AND LECTURES – ATLANTA UNIVERSITY CENTER

### CHEMISTRY EDUCATION RESEARCH AND PRACTICE

1. Winfield, L.; Beauty cosmetics, environment and health in the African American Community, Spelman College, Atlanta, GA, March 2023.
2. Winfield, L.; Pedagogical Skills and Techniques Panelist. Post-Pandemic Preparedness for a Pre-Pandemic Mindset at the Teaching Research and Resource Center, Spelman College, Atlanta, GA, May 2021.
3. Winfield, L.; McCormack, K.; Shaw, T. iSpartan enabled visualization of alkane conformations. Teaching Research and Resource Center, Spelman College, Atlanta, GA, March 2017.

### BROADENING PARTICIPATION

4. Winfield, L. Thoughts on Publishing. Academic Writing Institute, Atlanta University Center Robert W. Woodruff Library, Atlanta, GA, December 2014.
5. Winfield, L. The Determined Path. Beta Kappa Chi Induction Ceremony, Spelman College, Atlanta, GA, April 2013. (*keynote*)

### DRUG DESIGN AND ORGANIC SYNTHESIS

6. Winfield, L.; Sheares, B. Innovation and the new economy: Where do black women fit? Convocation, Spelman College, Atlanta, GA, September 2011.
7. Winfield, L. Virtual learning in Organic Chemistry. present at the Faculty Retreat, Douglasville, GA, May 2010.
8. Winfield, L. Health disparities in cancer research. presented in Research Methods, Sociology, Spelman College, March 2010.
9. Winfield, L. Designing molecules that target prostate cancer. Taste of Research, Minority Biomedical Research Support – Research Initiative for Scientific Enhancement Program, Spelman College, July 2009.
10. Winfield, L.; Smith, D. QSAR analysis of celecoxib derivatives. Building Interdisciplinary Collaborations in Informatics, ASPIRE Program Informatics Forum Series, Spelman College Atlanta, GA, April 2008.



- Winfield, L. Using computational modeling in developing cancer drugs. Taste of Research, Minority Biomedical Research Support – Research Initiative for Scientific Enhancement Program, Spelman College, July 2007.
- Winfield, L. Conversations in Organic Chemistry. Faculty Development Brown Bag Seminar Series, Spelman College, Atlanta, GA, September 2005.
- Winfield, L. Designing molecules for medicinal purposes. Bridges to Baccalaureate Program Seminar Series, Spelman College, Atlanta, GA, June 2005.
- Winfield, L. Alternative careers in chemistry. Model Institutes of Excellence sponsored Research Methods Course, Spelman College, Atlanta, GA, April 2005.

## CONTRIBUTED POSTER PRESENTATIONS (ACS = American Chemical Society)

### CHEMISTRY EDUCATION RESEARCH AND PRACTICE

- Muzyka, J.; Winfield, L. Organic chemistry educational resources: Community of organic chemistry educators. 254<sup>th</sup> ACS National Meeting, Washington, DC, August 2017.
- Winfield, L.; McCormack, K.; Fullilove, F., Shaw, T. A Community Affair: Mastering Skills in Organic Chemistry II. HBCU-UP/CREST PI/PD Meeting, Washington, DC, February 2017.
- Winfield, L. Community-based interactive engagement in an organic chemistry course. HBCU-UP/CREST PI/PD Meeting, Washington, DC, February 2016.
- Winfield, L. Learning behaviors and outcomes in a hybrid organic chemistry course. Chemical Education Research and Practice, Gordon Research Conference, Lewiston, ME, June 2015.
- Winfield, L.; Hibbard, L. Lessons from two chemists on improving learning behaviors and outcomes. SoTL Commons Conference, Savannah, GA, March 2015.
- Winfield, L. Strategies for Success in Organic Chemistry. HBCU-UP/CREST PI/PD Meeting, Washington, DC, February 2015.

### BROADENING PARTICIPATION

- Winfield, L. Sustaining Success in STEM at Spelman College. Understanding Interventions, Baltimore, MD, May 2014.

### DRUG DESIGN AND ORGANIC SYNTHESIS

- Payton-Stewart, F.; Tilghman, S.; Williams, L.; Winfield, L. Effects of benzimidazoles on ere transcriptional activity and cell growth in breast cancer cells. "Transdisciplinary Collaborations: Evolving Dimensions of US and Global Health Equity," The Minority Health and Health Disparities Grantees' Conference, National Harbor, Maryland, December 2014.
- Dark, M.; Winfield, L. Benzimidazoles as photovoltaic and light-emitting materials. Electronic Processes in Organic Materials, Gordon Research Conference, Lucca (Barga), Italy, June 2012.
- Winfield, L. Computational modules for undergraduate Medicinal Chemistry. North American User Group Meeting, Chemical Computing Group, Montreal, Quebec, June 2011.





11. Dark, M.; Winfield, L. Benzimidazoles as photovoltaic and light-emitting materials. SPIE: Organic Light-Emitting Materials and Devices XIV, San Diego, CA, August 2010.
12. Winfield, L. Using cheminformatics to design anti-cancer drugs. Drug Discovery Workshop, eCheminfo, Oxford, United Kingdom, July 2009.
13. Winfield, L.; Smith, D. The synthesis and binding modes of benzimidazole derivatives. Challenges in Organic and Bioorganic Chemistry, Ninth Tetrahedron Symposium, Berkeley, CA, July 2008.
14. Leggett, C.; Winfield, L. Using ADMET predictor to measure parameters of heterocyclic molecules. Defining and Promoting Student Success, Faculty Resource Network National Symposium, Atlanta, GA, March 2008.
15. Winfield, L.; Smith, D. Theoretical predictions of ligand binding properties of PDK-1 inhibitors. Annual Conference of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Orlando, FL, April 2007.
16. Winfield, L.; Smith, D. Phosphoinositide-dependent kinase 1 inhibitors. Chemistry in Cancer Research: A Vital Partnership, ACS and American Association for Cancer Research, San Diego, CA, February 2007.
17. Winfield, L.; Izenwasser, S.; Wade, D; Reid, C.; Trudell, M. L. The synthesis, lipophilicity, and dopamine transporter binding affinity of novel GBR 12909 derivatives. Annual Conference of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, New Orleans, LA, March 2002.
18. Winfield, L.; Izenwasser, S.; Wade, D; Reid, C.; Trudell, M. L. Synthesis and dopamine transporter binding affinity of 2,6-dioxopiperazine and 1,3,5-dithiazine analogues of GBR 12909. 222<sup>nd</sup> National Meeting of the ACS, Chicago, IL, August 2001.

## MEDIA AND ACKNOWLEDGEMENTS (ACS = American Chemical Society)

1. Featured in, "Spelman College Launches Online Cosmetic Science Certificate Program" a news article by Cosmetics & Toiletries. April 12, 2023.  
<https://www.cosmeticsandtoiletries.com/news/companies/news/22820532/spelman-college-launches-online-cosmetic-science-certificate-program>
2. Interviewed by Taylor Bryant for Beauty Independent. Chemistry Professor Leyte Winfield Gives Us The Inside Scoop On Spelman College's Cosmetic Science Certification. April 5, 2023.  
<https://www.beautyindependent.com/chemistry-professor-leyte-winfield-inside-scoop-spelman-college-cosmetic-science-certification/>
3. Interviewed by Cortez Bryant for BlackStream Live's The Foundation: Spelman College, November 2, 2021. <https://www.youtube.com/watch?v=8J86HydxepM>
4. Referenced in Smith, T. "The Intersectionality of Black Women and Girls in STEM," Medium, March 14, 2021.  
<https://tokiwatsmith.medium.com/the-intersectionality-of-black-women-and-girls-in-stem-17de40911627>



5. Interviewed by Marsha Walton for article, From Drug Discoveries to Empowering Young Women, Chemist Leyte Winfield Finds Answers, February 26, 2021. <https://www.aaas.org/membership/member-spotlight/drug-discoveries-empowering-young-women-chemist-leyte-winfield-finds>
6. Interviewed by Jacob Sanders for the “Ask the Expert” section in the article “2021 Best & Worst Metro Areas for STEM Professionals,” by Adam McCann for Wallet News, January 27, 2021.  
[https://wallethub.com/edu/best-worst-metro-areas-for-stem-professionals/9200?fbclid=IwAR0yySMvu2L-Xljy1QJmN9qBNsp1woH4FXd12yxxa\\_OKv4qLh2sp-2Hngo#expertLeyte\\_Winfield](https://wallethub.com/edu/best-worst-metro-areas-for-stem-professionals/9200?fbclid=IwAR0yySMvu2L-Xljy1QJmN9qBNsp1woH4FXd12yxxa_OKv4qLh2sp-2Hngo#expertLeyte_Winfield)
7. The Article, “Realigning the Crooked Room” featured in Stanford Wise Ventures, Research and Resources, 2020. <https://wise.stanford.edu/research-resources/wise-references>
8. Interviewed by Andrea Widener for the article, “A bright spot in training Black Scientists,” Chemical & Engineering News Global Enterprise 2020, 98 (34), 28-33. <https://pubs.acs.org/doi/10.1021/cen-09834-cover2>
9. Referenced in McDaniel, J. “ACS Scholar alumna: Chyree Batton,” Chemical & Engineering News, 98 (29), July 25, 2020.  
[https://www.spelman.edu/docs/communications-office/faculty-excellence.pdf?sfvrsn=6f706451\\_4](https://www.spelman.edu/docs/communications-office/faculty-excellence.pdf?sfvrsn=6f706451_4)
10. The Book, *Growing Diverse STEM Communities: Methodology, Impact, and Evidence*, was included in a compilation of resources that accompanied the webinar “Teaching remotely together: Lessons learned” presented on June 30, 2020.
11. The article “OrganicERs” featured in “Resources for Teaching Your Chemistry Class Online: A Free to Read Collection from the ACS’s Division of Chemical Education.” A Journal of Chemical Education Virtual Issue, 2020. [https://pubs.acs.org/page/jceda8/vi/teaching-chemistry-online?ref=vi\\_journalhome](https://pubs.acs.org/page/jceda8/vi/teaching-chemistry-online?ref=vi_journalhome)
12. Featured in “Leyte Winfield, Sabbatical Connections Program’s First Visiting Associate Professor, Shares Perspective on Program.” University of Michigan: Ann Arbor, MI, 2018.  
<https://pharmacy.umich.edu/about-college/news/category/more-news/leyte-winfield-sabbatical-connections-program%E2%80%99s-first-visiting-associate-professor-shares-perspective-program>
13. Interviewed by Myra Burnett for “Faculty Excellence at Spelman College.” Spelman College: Atlanta, GA, 2017.  
[https://www.spelman.edu/docs/communications-office/faculty-excellence.pdf?sfvrsn=6f706451\\_4](https://www.spelman.edu/docs/communications-office/faculty-excellence.pdf?sfvrsn=6f706451_4)
14. Interviewed by Jeanette Brown for “African American Women Chemists in the Modern Era.” Oxford University Press: Oxford, England, UK, 2018. ISBN: 9780190615178
15. Interviewed by Tiera Coston, Center for the Advancement of Teaching and Faculty Development, Xavier University of Louisiana. Interviewed October 5, 2016 (published Spring 2017).  
<https://cat.xula.edu/food/conversation-59/>
16. Interviewed for “Sandia National Lab News” in the article entitled Using ‘sisterhood’ to support women of color in STEM by Mollie Rappe. Interviewed August 10, 2016. Access at:



[http://www.sandia.gov/news/publications/labnews/articles/2016/02-09/women\\_of\\_color.html](http://www.sandia.gov/news/publications/labnews/articles/2016/02-09/women_of_color.html)

17. Interviewed for article on women in STEM for “Harper’s Magazine” by Hali Felt. Interviewed December 10, 2015.
18. Interviewed for the Talk show “Science Today.” Filmed March 22, 2015, in Atlanta, GA at the Synchronicity Theater. Access at: <https://www.youtube.com/watch?v=Ghfo67OiftM>
19. Acknowledged in Mancia *et al.* Qualitative Identification of Dibenzoylmethane in Licorice Root (*Glycyrrhiza glabra*) using Gas Chromatography-Triple Quadrupole Mass Spectrometry, *Natural Product Communications* 2014, 91 – 94.
20. Quoted in STEM News, STEM News Chronicle, December 2014. <https://snchronicle.com/>
21. Interviewed for Women in STEM – A Special Edition, STEM News Chronicle, Vol. 2, Issue 7, March 2013. <https://snchronicle.com/>
22. Interviewed by Weiyi Zhao for the American Society for Biochemistry and Molecular Biology Research Spotlight, June 2013. Access at: <https://www.asbmb.org/asbmb-today/people/061413/q-a-with-leyte-winfield>
23. Research featured in Chemformation, The Newsletter of the MIT Department of Chemistry, Vol. 26, No. 3, Monday, March 2, 2009.
24. Non-Technical Summary of the presentation “Life in academia: Myths, realities, and resources.” The ACS Office of Communications. January 6, 2009.
25. Research featured in Prisinzano, T.; Rice, K. Structure-Activity Relationship of GBR 12909 Ligands. In *Dopamine Transporters: Chemistry, Biology, and Pharmacology*; Trudell, M.; Izenwasser, S., Eds.; Wiley Series in Drug Discovery and Development; Wiley Blackwell, 2008. Page 214.
26. Research featured in Chemformation, The Newsletter of the MIT Department of Chemistry, Vol. 25, No. 2, March 5, 2008.
27. Research featured in Weekly Bulletin. Department of Chemistry, Northwestern University, Evanston, Illinois 60208-3113. January 28, 2008.
28. Research featured in the University of Wisconsin-Madison Department of Chemistry Newsletter, Vol. XXXII, No. 4, January 28, 2008.
29. Press Release by Georgia Bio, the Life Science Partnership. Unique College Course Aims to Provide Trained Workforce for GA’s Growing Life Sciences Industry. September 5, 2007.
30. Interviewed for the National Organization of Black Chemists and Chemical Engineers Newsletter On-line (NNOL) – Making Connections at NOBCChE. Editorial Staff. Vol. 37, No. 2, Spring 2007.
31. Non-Technical Summary of the presentation, “Life in academia: Myths, reality and mentoring.” The ACS Office of Communications, January 8, 2007.
32. Research featured in The Fountain, A newsletter for the Whitman community, Vol. 1, No. 6, September 25, 2006.
33. Interviewed for NOBCChE NEWS On-Line. Spring 2006, Vol. 36, No. 2.



## PEER REVIEWS

### BOOKS AND SUPPLEMENTS REVIEWED

1. Cosmetic Formulation: Principles and Practice, CRC Press/Taylor & Francis. Completed 2023.
2. Expert Reviewer, Scholar in Residence, Bellagio Center, Rockefeller Foundation. Completed 2023.
3. Reviewer, Adapting Existing Assessment for Online Courses in *Advances in Online Chemistry Education*, ACS, Washington, DC, in press. Completed in 2021.
4. Reviewer, Evaluation of a Peer-led Team Learning-Flipped Classroom Reform in Large Enrollment Organic Chemistry Courses in *Enhancing Student Retention in Introductory Chemistry Courses: Practical Strategies*, ACS, Washington, DC, in press. Completed in 2019.
5. Reviewer, Wanted! Diverse STEM Professionals Seek Like-minded Mentors, Coaches, Sponsors, and Advocates in *Diversity in the Scientific Community*, ACS, Washington, DC, in press. Completed in 2017.
6. Reviewer, Xavier University of Louisiana: Routinely Beating the Odds in *Diversity in the Scientific Community*, ACS, Washington, DC, in press. Completed in 2016.
7. Reviewer, *SYnergistic Network to Enhance Research that Grows Innovation (SYNERGI)* Workshop materials, Leadership Alliance. Completed in 2016.
8. Reviewer, Organic Chemistry 2<sup>nd</sup> edition (Klein), Wiley Higher Education. Completed in 2012.
9. Participant, Cross-linked content in Chemical Publications, Wiley Focus Group. Completed in 2010.
10. Reviewer, Organic Chemistry 1<sup>st</sup> edition (Klein), John Wiley & Sons Inc. Completed in 2009.
11. Participant, Wiley Organic Chemistry Virtual Focus Group (VFG). Completed in 2009.
12. Participant, Organic Chemistry Focus Group, Prentice Hall. Completed in 2006.

### JOURNAL MANUSCRIPTS REVIEWED

13. Nature Chemistry, 2022 (revision 2023).
14. Chemistry Education Research and Practice, 2021.
15. Research in Science Education, 2020.
16. Springer Nature – Scientific Reports, 2017.
17. Chemical Educator, 2015.
18. Journal of Chemical Education, 2007 – present.
19. Reports in Organic Chemistry, 2012.
20. Chemical Biology and Drug Design, 2010.
- 21e Tumor Biology, 2010.
22. Steroids, 2009.
23. Letters in Drug Design and Development, 2008.



## NATIONAL PROPOSAL REVIEWED

24. Pre-submission Reviewer, *AISL – Innovations in Development: Reimagining engagement as development of partnerships between science communities and communities underrepresented in STEM through bi-directional learning* (PI, Jay Banner), a UT Austin proposal to the NSF Advancing Informal STEM Learning (AISL) program, 2018.
25. Panelist, Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science, NSF, 2016, 2017, (Declined invitation for 2020).
26. Panelist, EHR Core Research, NSF, 2015.
27. Panelist, the Historically Black Colleges and Universities Undergraduate Programs, NSF, 2014, 2015, 2016, 2017.
28. Panelist, Graduate Research Fellowship Program, NSF, 2014.
29. Ad Hoc Reviewer, Chemistry Special Projects, NSF, 2012.
30. Panelist, Scholarships in Science, Technology, Engineering, and Mathematics, NSF, 2010.
- 31e Ad Hoc Reviewer, the Historically Black Colleges and Universities Undergraduate Programs, NSF, 2010.
32. Reviewer, Petroleum Research Fund, ACS, 2010.
33. Panelist, Course, Curriculum, and Laboratory Improvement, NSF, 2009.
34. Reviewer, Motivating Undergraduates in Science and Technology Scholarship Program, National Aeronautical and Space Association, 2009.
35. Reviewer, Ford Foundation, National Academies, 2008 and 2010.
36. Panelist, Graduate STEM Fellows in K-12 Education, NSF, 2006 and 2007.
37. Panelist, Research and Evaluation on Education in Science and Engineering, NSF, 2006.
38. Reviewer, Louisiana Board of Regents' Research Competitiveness Subprogram, November 2005.

## OTHER REVIEWS

39. Member, Madam CJ Walker Scholarship Committee, Society of Cosmetic Chemists, 2024.
40. Review Committee, American Association of Colleges and Universities Network for Academic Renewal Conference Proposals, 2015 and 2019.
- 41e Judge, Undergraduate poster competition for the National Organization for the Advancement of Black Chemist and Chemical Engineers, 2015.
42. Abstract Reviewer, International Symposium on Minority Health and Health Disparities Abstracts, 2014.
43. Abstract Reviewer and Judge, Undergraduate poster competition for the Annual Biomedical Research Conference for Minority Students, 2005.
44. Writer and reviewer, Educational Testing Service Graduate Research Exam Subject Area Exam in Chemistry, 2004 – 2008.



## LEADERSHIP DEVELOPMENT

1. Institute for Management and Leadership in Education (MLE), Harvard University School of Graduate Education, Boston, MA, June 21 – July 1, 2022.
2. STEM Women of Color Conclave and Fielding Leadership Academy (travel award), Chantilly, VA, June 8 – 10, 2019.
3. Seminar on Leadership of the Faculty, Harvard University School of Graduate Education, Boston, MA, August 14 – 17, 2018.
4. STEM Women of Color Conclave and Fielding Leadership Academy (travel award), Ellicott City, MD, September 29 – October 2, 2017.
5. Institute on Quality Enhancement and Accreditation, Southern Association of Colleges and Schools Commission on Colleges, New Orleans, LA, July 20 – 23, 2014.
6. Regional Women's Leadership Forum, American Council on Education Houston, TX, May 21 – 23, 2014.
7. The Chair as Leader and Faculty Peer, 2013 Workshop for Department and Division Chairs, The Council of Independent Colleges. Albuquerque, NM, June 4 – 6, 2013.
8. The Chemistry of Leadership, a Women's Leadership Development Program, COACH for Women Scientist, New Orleans, LA, April 6, 2013.
9. Leadership Academy for Department Chairs, American Council on Education, Oxford, OH, July 11 – 12, 2012.
10. Performance Management for Managers and Supervisors, Spelman College, Atlanta, GA, April 27, 2010.
11. Steering a Course, Making Change and Being Strategic in Uncertain Waters, COACH for Women Scientist, Atlanta, GA, March 28, 2010.
12. The Chemistry of Leadership, A Women's Leadership Development Program, COACH for Women Scientist, Salt Lake City, UT, March 21, 2009.
13. Effective presentation Techniques, Speaking with Confidence and Success, Emory Center for Lifelong Learning, Atlanta, GA, April 14, 2008.
14. Dealing with Difficult People, Emory Center for Lifelong Learning, Atlanta, GA, March 10, 2008.
15. COACHing Strong Women in the Power of Strategic Persuasion, COACH for Women Scientist, Los Angeles, CA. April 8, 2007.

## OTHER PROFESSIONAL DEVELOPMENT

### MEETING AND SYMPOSIA ATTENDED

16. S-STEM PI Symposium, Washington, D.C., September 12 – 14, 2019.
17. University of Michigan College of Pharmacy Research Symposium (Student-Faculty Team travel award), Ann Arbor, MI, April 4 – 5, 2019.



18. Understanding Interventions that Broaden Participation in Science Careers (travel award), Baltimore, MD, March 8 – 10, 2019.
19. NSF Innovation Corps Broadening Participation Summit (travel award), Washington, DC, October 3 – 5, 2018.
20. Understanding Interventions that Broaden Participation in Science Careers (travel award), San Antonio, TX, March 2 – 4, 2018.
- 21e Understanding Interventions that Broaden Participation in Science Careers (travel award), San Antonio, TX, March 3 – 5, 2017.
22. "Women of Color in the Academy: What's Next?", UD ADVANCE Institute Conference (travel award), University of Delaware, Newark, DE, April 29 – May 1, 2016.
23. Envisioning the Future of Undergraduate STEM Education (EnFUSE): Research and Practice, Washington, DC, April 27 – 29, 2016.
24. HBCU Presidents' Summit on STEM, Alabama State University, Montgomery AL, March 13 – 15, 2016.
25. National Organization of Black Chemist and Chemical Engineers 42<sup>nd</sup> Annual Conference, September 21 – 25, 2015.
26. STEM think tank and symposium, "Sharing Solutions: Advancing Girls in STEM!" The Center for the Advancement of Girls (CAG), the Agnes Irwin School, Rosemont, PA, March 19 – 20, 2015.
27. 2014 Transforming STEM Higher Education, Association of American Colleges & Universities, Atlanta, GA, November 6 – 8, 2014.
28. STEM Women of Color Conclave (travel award), Ellicott City, MA, June 8 – 10, 2014.
29. Historically Black Colleges and Universities Innovation Summit, United Negro College Fund, Stanford University, Palo Alto, CA, October 29 – November 1, 2013.
30. STEM Women of Color Conclave (travel award), Chantilly, VA, June 8 – 10, 2013.
- 31e STEM Women of Color Conclave (travel award), Atlanta, GA, June 3 – 5, 2011.
32. Women Chemists of Color Summit (travel award), 240<sup>th</sup> ACS National Meeting, Boston, MA, August 24, 2010.
33. Sustaining Diverse Environments, Joint Annual Meeting, NSF, Washington DC, June 6 – 9, 2010.
34. STEM Women of Color Conclave (travel award), Washington D.C., June 5 – 6, 2010.
35. Historically Black Colleges and Universities and Minority-Serving Institutions Chairs Council Forum, National Organization of Black Chemist and Chemical Engineers, Houston, TX, April 19 – 21, 2011.
36. DNA Damage, Mutation & Cancer: Gordon Research Conference, Ventura Beach, CA, March 21 – 26, 2010.
37. Teaching the Millennial Student: Best Practices in Teaching and Learning, The Interlink Alliance Inaugural Faculty Development Conference, Atlanta, GA, March 19, 2010.



38. What's the Use of Race? MIT Center of the Study of Diversity in Science, Technology, and Medicine, Boston, MA, April 25 – 26, 2008.
39. Research Symposium on New Horizons in Organic Chemistry and Drug Design, State University of New York Stony Brook, Stony Brook, NY, September 29 – 30, 2005.
40. DREAM, Center for Biomedical and Behavioral Research, Spelman College, Stone Mountain, GA, August 18 – 19, 2005.
- 41e The key to lifelong professional development, Becoming a lifelong learner, National Organization for the Professional Advancements of Black Chemists and Chemical Engineers Southwest National Conference, New Orleans, LA, November 2004.
42. Molecular Therapeutics of Cancer, Gordon Research Conference, New London, NH, July 12 – 15, 2004.
43. Effective Mentoring, Spelman College Research Infrastructure in Minority Institutions, Atlanta, GA, 2004.
44. Building Vital Undergraduate Science, Technology, Engineering, and Mathematics Departments and Programs, Project Kaleidoscope, Agnes Scott College, Atlanta, GA, December 5 – 7, 2003.

### **SHORT COURSES**

45. Nuclear Magnetic Resonance Summer Short Course: Emory University Nuclear Magnetic Resonance Research Center, Atlanta, GA. July 7 – 9, 2008.
46. Essentials of Medicinal Chemistry and Pharmacology, ACS Short Course, San Francisco, CA, September 2006.

### **TECHNICAL TRAINING AND WORKSHOPS**

47. American Association of Colleges and Universities 2019 Teaching to Increase Diversity and Equity in STEM Institute, Los Angeles, CA, June 10 – 14, 2019.
48. NSF I-CORP Broadening Participation Summit, Washington, D.C., October 3 – 5, 2018,
49. Holistic Review Institute, University of Southern California, Los Angeles, CA, March 17, 2018.
50. Best Practices in Creating Successful Faculty-led Programs, International Faculty Development Seminars, Center for International Education Exchange, Paris, France, July 10 – 16, 2017.
- 51e Global Climate Change: Science, Economics, Migration, Network Winter 2017, Faculty Resource Network, Atlanta, GA, January 9 – 13, 2017.
52. Real Work is Better than Homework: Strategies for Promoting Authentic Science Practices in Student Assignments, Network Summer 2016, Faculty Resource Network, New York, NY, June 6 – 10, 2016.
53. Beauty: The Fortunes and Transformations of an Ancient Greek Idea, Network Summer 2015, Faculty Resource Network, New York, NY, June 8 – 12, 2015.
54. Metacognition, Teaching Research and Resources Center, Spelman College, Atlanta, GA, April 2015.
55. TechSmith Relay Training, Media Information Technology, Spelman College, Atlanta, GA, March 2015.





56. Assessing undergraduate student performance in chemistry: Going beyond multiple-choice tests, Innovative Learning Concepts LLC, Spelman College, Atlanta, GA, September 3, 2013.
57. Questioning Strategies and Curriculum Mapping: Using Hands-On Guided Inquiry to Teach Oxidation-Reduction Reactions in Chemistry, Innovative Learning Concepts LLC, Spelman College, Atlanta, GA, August 27 – 28, 2013.
58. French-American Workshop 2013, MINETEC at Grenoble Innovations for Advanced New Technologies, Grenoble, France, July 2 – 3, 2013.
59. Strategic Grant Development and Writing Workshop, Institute for Strategic Funding Development. Atlanta, GA, May 16 – 17, 2013.
60. Learning Course Design, a Boot Camp, Atlanta, GA, March 23 – 24, 2013.
- 61e Evidence-based STEM Instructional Strategies, Quality Education for Minorities, Baltimore, MD, November 9 – 10, 2012.
62. Roll-Up Your Sleeves, HRP Associates and Georgia Independent College Association, Atlanta, GA, July 27, 2012.
63. Medicinal Chemistry, Chemistry Collaborations, Workshops & Communities of Scholars, Minneapolis, MN, July 15 – 20, 2012.
64. Chemistry Directorate Grant Writing Workshop, Quality Education for Minorities, New Orleans, LA, January 13 – 14, 2012.
65. Fragment-Based De Novo Discovery and Advanced Homology and Loop Modeling, Molecular Operating Environment Workshop Series, Chemical Computing Group, Durham, NC, August 10, 2011.
66. Protein-Protein Interactions, Molecular Operating Environment Training Sessions, Chemical Computing Group North American User Group Meeting, Montreal, Québec; June 20 – 21, 2011.
67. Engaged STEM Learning, From Promising to Pervasive Practices, An Association of American Colleges and Universities Meeting, Miami, FL, March 24 – 26, 2011.
68. Solicitation Information Workshop 2, Minority University Research and Education Program Education Opportunities in NASA STEM, Huntsville, AL, February 23, 2011.
69. Tuberculosis, a Global Epidemic, Network Winter 2011, Faculty Resource Network, January 10 – 14, 2011.
70. Computational Chemistry for Chemistry Educators, Center for Workshops in the Chemical Sciences, San Jose, CA August 1 – 6, 2010.
- 71e 2nd Strasbourg Summer School on Chemoinformatics, VVF Obernai, France, June 20 – 24, 2010.
72. eCheminfo Drug Discovery Workshop, Oxford, UK; July 19 – 25, 2009.
73. Chemical Biology, Introduction to HIV Drug Design, Network Summer 2009, Faculty Resource Network, June 7 – 12, 2009.
74. TurningPoint Technologies Training, On-line, July 1, 2008.



75. Ligand Based Drug Design, Molecular Operating Environment Training Sessions, Chemical Computing Group North American User Group Meeting, Montreal, Quebec, June 10 – 13, 2008.
76. TurningPoint Technologies Training Response System, Spelman College, Atlanta, GA, January 17, 2008.
77. Process Oriented Guided Inquiry Learning Workshop, Agnes Scott College, Atlanta, GA, September 15, 2007.
78. Nuclear Magnetic Resonance User Training, Emory University Nuclear Magnetic Resonance Research Center, Atlanta, GA. July 9, 2007.
79. Career Grant Writing Workshop, Quality Education for Minorities, Las Vegas, NV, February 9 – 10, 2007.
80. Qualitative Structure-Activity Analysis and Docking Analysis using Molecular Operating Environment, Whitman College, Seattle, WA. October 19 – 22, 2006.
- 81e Mass Spectroscopy, Thermo Electron Corporation Scientific Instruments Training Institute LCQ Operations Course, Spelman College, Atlanta, GA, August 7 – 10, 2006.
82. The Workshop on Chemoinformatics Research and Teaching in Europe, Obernai, France, May 29 – 31, 2006.
83. Grant Funding Opportunities, Center for Biomedical and Behavioral Research, Spelman College, Atlanta, GA, November 1, 2005.
84. ADMET Predict 3-hour Training, On-line, Simulations Plus, Inc. October 13, 2005.
85. NSF Major Research Instrumentation Proposal Development Workshop, Quality Education for Minorities, Phoenix, AR, October 7 – 8, 2005.
86. Writing Competitive Contracts, Training Academic Faculty and Staff to Compete in the World of Contract Acquisition with Federal Agencies, Morehouse School of Medicine and the National Cancer Institute Center for Health Disparities, Atlanta, GA, August 10 – 13, 2005.
87. Teaching Guided-Inquiry Organic Chemistry, Center for Workshops in the Chemical Sciences, Irvin, CA, July 31 – August 5, 2005.
88. NMR: Fundamentals and Applications, Center for Workshops in the Chemical Sciences, Athens, GA, June 20 – 24, 2005.
89. Training for the use of molecular modeling software (Sybyl and insight), Army Medical Research Institute, Aberdeen Proving Grounds, MA, April 5 – 7, 2005.
90. Department of Defense Technical Assistance Training, Charlotte, NC, April 10 – 12, 2005.
- 91e Grantsmanship Workshop, Extramural Associates Research Development Award, Spelman College, Atlanta, GA, March 2005.

## SERVICE



## COLLEGE SERVICE

### STANDING COMMITTEES

1. Member, Tenure and Promotion Committee, 2021 – present.
2. Member, Faculty Council, 2012 – 2013.
3. Appointed Member, Faculty Council, 2010.
4. Member, Resource Allocation Committee, 2010.
5. Member, Honorary Degree Committee, 2008, 2013, 2015, 2016.
6. Member, Educational Technology Committee, 2007 – 2010.
7. Recorder, Educational Technology Committee, 2007 – 2008.
8. Co-Chair, Faculty Welfare Committee, 2007 – 2010.
9. Member, Domestic Exchange Committee, 2006 – 2007.
10. Member, Chemical Hygiene Sub-Committee, Spelman College Safety Committee, 2004 – 2011.

### AD-HOC COMMITTEES AND WORKING GROUPS

11. Member, QEP Master Class Organizing Committee – More than what we make up, Estee Lauder Companies, Spring 2023.
12. Member, Search Committee for the Director of Government Relations, Fall 2022.
13. Member, COACH Steering Committee, Spring 2022 – present.
14. Member, QEP Master Classes Organizing Committee – Scents of Success, Fragrance Foundation, Summer and Fall 2021 – present.
15. Member, Search Committee for the New Vice President of Public Relations and Communications, Fall 2021.
16. Member, COVID-19 Task Force “Spelman’s Path Forward” (Subcommittees: Instructional and Research Continuity; Health and Safety), Spring 2020 – 2022.
17. Member, Academic Continuity Task Force – TechBuddies, Spring 2020.
18. September 2020 – present, Ex-officio Member, Leadership Advisory Committee, Center of Excellence for Minority Women in STEM, Spelman College.
19. Member, Quality Enhancement Plan, 2018 - present
20. Appointed Member, SACSCOC Reaffirmation and Reaccreditation Leadership Team 2021, 2018 – 2021.
21. Member, Research Infrastructure Ad-hoc committee, 2015 – 2016.
22. Appointed Member, Undergraduate Research Initiative Work Group, 2011 – 2012.
23. Member, Faculty Handbook Working Group, 2011.
24. Member, Risk Management Working Group, 2010 – 2017.



25. Member, Fourth Annual Faculty Research Day Committee, 2010.
26. Co-chair, Faculty Research Day Committee, 2006 – 2007.
27. Recorder, Interdisciplinary Ad-Hoc Committee, 2008 – 2009.
28. Member, General Educational Ad-Hoc Committee, 2007 – 2009.
29. Member, Advising Workgroup, 2007 – 2008.

### **COMMUNICATIONS BRIEFINGS**

27. Remarks for President Gayle, How can institutions position themselves for science philanthropy? Science Philanthropy Alliance Research Institutions Meeting, March 9, 2023.
28. Remarks for President Gayle, Black representation in the beauty industry, McKinsey, January 24, 2023.
29. Proposal for Engagement with Rowan and the Atlanta Research Triangle, for President Gayle, October 15, 2022
30. Remarks for President Gayle, Lost Women of Science series, UNCF and Handshake, November 2, 2022.

### **INSTITUTIONAL ADVANCEMENT ACTIVITIES SUPPORTED**

31. Gifts and Awards: Sara Nolan, Clara Booth Luce, Frank and Laura Day Baker, 2018 – present
32. Gift Cultivations and Partnership Development: United Negro College Fund Career Pathways Initiative Liberal Arts Innovation Center, Georgia Power, Lockheed Martin, Genentech, Google Initiative, Cummins Inc., Citi Ventures, Survey Monkey, Microsoft, Watson Group, 2018 – present
33. Vivien Thomas Scholar Initiative, Inaugural Partner Roundtable, 2021 – present

### **OTHER SERVICE**

34. Organizer, Conversation with the Beauty Executive – Tracee Ellis Ross and The Patterns Team. Hosted by Spelman College, February 20, 2022.
35. HBCU Competitiveness Campaign: Igniting Local HBCU Strategy, White House Initiative on HBCUs, Atlanta, GA, November 2019.
36. Facilitator, The Drug Epidemic: The Politics of Discovery, Dissemination, and Affordability, Multidimensional Perspectives on Healthcare in the 21<sup>st</sup> Century Summit. Hosted by Spelman College, October 24, 2019.
37. Organizer, Assessing Processing Skills in the Classroom – Faculty Workshop, facilitated by Renee Cole. Hosted in collaboration with the Teaching Research and Resources Center at Spelman College, October 10, 2019.
38. Organizer, Science Unscripted: Screens Behind the Scenes with Industrial Light & Magic. Hosted in collaboration with the National Medals Foundation at Spelman College, September 25, 2019.
39. Organizer, STEM Gems. Hosted in collaboration with the Atlanta Science Festival at Spelman College March 2019 and 2020.



40. Participant, Spelman College delegation to build collaborations with the National Organization for Research Center (NORC), March 2019.
41. Planning committee member, Association of American Colleges and Universities Project Kaleidoscope (AAC&U PKAL) STEM conference planning committee. Hosted in Atlanta, GA, Fall 2018.
42. Organizer, DOE National Lab Day. presented in partnership with Valerie Haftal (Morehouse). Hosted at the Atlanta University Center, Atlanta, GA, October 2016.
43. Participant, The Arcadia University US Study Abroad Consortium, STEM Delegation, Australia Partner Preview, November 2015.
44. Panelist, Funding Opportunities and Proposal Development for the NSFs. Spelman College, October 2014.
45. Reviewer, WISE Up Scholarship Applications, 2014.
46. Reviewer, Louis Stokes Alliances for Minority Participation & Department of Energy STEM Scholars Applications, 2013.
47. Coordinator, Group Intelligence/Chemistry Flash Mob in collaboration with Center for Chemical Evolution and Out of Hand Theater, 2013.
48. Instructor, Medical College Admission Test Review – Organic Chemistry, Health Careers Pipeline Preparation Program, 2013.
49. Participant, a site visit to explore their practices in engaged and student learning, University of Maryland Baltimore County, Baltimore, MD, November 2012.
50. Member, Dual Degree in Engineering Program Advisory Committee, 2012 – present.
51. Member, Cooperative Education Faculty Advisory Committee, 2010 – 2012.
52. Member, Free Thinking Women Seminar – Globalization Planning Committee, 2010.
53. Moderator, Free Thinking Women Colloquia, 2009.
54. Chair, Advancing Spelman's Participation in Informatics Research and Education Program Peer Facilitated Learning Program Development Team, 2007 – 2008.
55. Small-Group Discussion Leader, Learning for Life, Spelman College New Student Orientation, 2007.
56. Panelist, Women in Science, Technology, Engineering, and Mathematics Career Panel, 2007 – 2009.
57. Faculty Panelist, Spelman College Honors Spel-Bound Program, 2007.
58. Moderator, Biology/Chemistry Oral Session, Spelman College Research Day, 2007 – 2009, 2012.
59. Sophomore Assembly Small Group Discussion Leader for Majors in the Physical Sciences, 2007.
60. Reviewer, First Year Portfolio and Spelfolio Jury, 2006.
61. Panelist, Summer Science Academy Panel, 2004 – 2005.
62. Panelist, Motherhood Panel on childcare options, networking, and childcare co-ops, 2005.



## DEPARTMENT SERVICE

1. Speaker Introduction, Elements of Distinction Symposium 2023.
2. Director, Chemistry & Biochemistry Scholars – Sheares Family Endowment, 2013 – 2017.
3. Education Studies Course Sequence and Alignment, 2012.
4. Candidate Review Committee Organizer, Tenure Track appointment in Organic Chemistry, 2011 – 2012.
5. Candidate Review Committee Organizer, 1-year appointment in Organic Chemistry, 2011.
6. First-Year Advisor, Biochemistry and Chemistry Majors, 2005 – 2008, 2011.
7. Department of Chemistry Standing Committees:
  - a. Facilities Committee: Instrumentation/Computer Sub-Committee. 2005 – 2012.
  - b. Curriculum Committee, Chair. 2005 – 2008.
  - c. Seminar Committee. 2005 – 2008.
  - d. Programs Committee. 2004 – 2012.
8. Department and Academic Programs Review Committee, 2005 and 2010.
9. Project Focus Team Leader, Model Institutes of Excellence, Spelman College, 2004 – 2005.

## STEM OUTREACH IN THE COMMUNITY

1. Organizer, Pave Foundation Girls in STEM Outreach, 2021 – present.
2. Presenter, *Leadership Styles and Assessment*, Leadership Empowerment and Development, Changing a Generation, 2013.
3. Merit Badge Counselor, Chemistry Merit Badge, Boys Scouts of America, 2013.
4. Presenter, Career Day, Center Academy, 2013.
5. Science Fair Judge, Hapeville Academy Charter School, 2012.
6. Speaker, Breast Cancer Awareness, Pink and Purple Mixer with a Message, 2012.
7. Mentor, Fulton County Talented and Gifted Internship Program, 2012.
8. Presenter, conducted basic scientific experiments, Center Academy, 2011.
9. Presenter, conducted basic scientific experiments, Pure Genius STEM Expo, Girl Scouts of Greater Atlanta, 2011.
10. Collaborator, developed a grant to support Camp DIVAS in the KNOW, STEM summer camp. Summer 2011.
11. Presenter, Career Day, Beecher Elementary School, 2011.
12. Presenter, conducted basic scientific experiments, STEM Summit for Girls, Women Department of Labor, 2011.



13. Committee Chair, Charter Petition development for the PSM Performing Arts Academy, 2008 – 2011.
14. Book Reviewer, Boys Transitioning from Athletic Aggression to Academic Affirmation by H.E. Holliday, Ph.D., 2011.
15. Panelist, Kappa Alpha Psi Guide Right Mentoring Program Panel on Chemistry, 2011.
16. presenter and host, conducted basic scientific experiments for Camp DIVAS in the Know, STEM summer camp, 2010.
17. Panelist, African American Women Inventors and Entrepreneurs Panel, National Association of Negro Business & Professional Women's Club, Inc., Atlanta Metro Chapter, 2010.
18. Mentor, StarLabs, assisted students with developing science fair projects entitled, "DNA Stability," 2009.
19. Volunteer, Georgia Academies of Science, 2009.
20. Science Fair Judge, Woodland Middle School, 2009.
- 21e Science Fair Judge, Imagine International Academy of Mableton, 2008.
22. presenter, ACS Georgia Local Sections/Girl Scouts Science Day, DNA Detective and DNA Math, 2007.
23. Science Fair Judge, Clayton, Fulton and Gwinnett County, 2005 – 2010.
24. Science Coordinator and Instructor, Tutoring program for GED students, 2005.
25. Assistant Coordinator and Volunteer, Super Science Saturday, Sponsored by the Atlanta Professional Chapter of NOBCCHE, 2003, 2008 – 2010, 2012.

