

CURRICULUM VITAE

JOHN CAMERON TYSON

ASSISTANT DEAN FOR ACADEMIC PROGRAMS, COLLEGE OF SCIENCES
ACADEMIC FACULTY, PRINCIPAL ACADEMIC PROFESSIONAL, SCHOOL OF CHEMISTRY & BIOCHEMISTRY
GEORGIA INSTITUTE OF TECHNOLOGY (GEORGIA TECH), ATLANTA, GA, USA 30332

I. EARNED DEGREES

Ph.D. in Chemistry, December 1997, Georgia Institute of Technology, Atlanta, GA
B.S. in Chemistry with Honors, June 1992, Georgia Institute of Technology, Atlanta, GA

II. EMPLOYMENT HISTORY

Assistant Dean For Academic Programs, College of Sciences & Principal Academic Professional, School of Chemistry & Biochemistry, Georgia Institute of Technology, Evans Administration Building, 225 North Avenue, Suite 201, Atlanta, GA 30332-0365 (2014-Present).

Director of Graduate Programs, Senior Academic Professional, School of Chemistry and Biochemistry, Georgia Institute of Technology, 901 Atlantic Drive, Atlanta, GA, 30332 (2006-2013).

Graduate Program Coordinator, Academic Professional, School of Chemistry and Biochemistry, Georgia Institute of Technology, 901 Atlantic Drive, Atlanta, GA, 30332 (2002-2005).

Graduate and Undergraduate Programs Academic Advisor, School of Chemistry and Biochemistry, Georgia Institute of Technology, 901 Atlantic Drive, Atlanta, GA, 30332 (1998-2001).

Visiting Instructor, Kennesaw State University, School of Chemistry, 1000 Chastain Rd, Kennesaw, GA, 30144 (1997).

Graduate Research/Teaching Assistant, School of Chemistry and Biochemistry, Georgia Institute of Technology, 901 Atlantic Drive, Atlanta, GA, 30332 (1992-1997).

III. HONORS AND AWARDS

Georgia Tech College of Sciences Ralph and Jewel Gretzinger Moving the School Forward Award, 2023

Georgia Tech Office of Housing Faculty Cornerstone Award, 2016.

Texaco Corporation Graduate Student Fellow, 1996.

Department of Education Graduate Assistance in Areas of National Need (GAANN) Fellow, 1993.

Outstanding Graduate Teaching Assistant Award Recipient, 1993.

IV. RESEARCH AND SCHOLARSHIP

A. REFEREED PUBLICATIONS AND SUBMITTED ARTICLES

A1. Published and Accepted Journal Articles

“New Functional Copolyesters” Collard, D.M.; Allen, S.D.; Cherrier, M.C.; Connor, D.M.; Jones, A.G.; Jones, J.R.; Kriegel, R.M.; Liotta, C.L.; Tyson, J.C.; Vargas, M.; Schiraldi, D.A. *Polymer Preprints* **1999**, *217*, 327.

“Synthesis and Oxidative Polymerization of Semifluoroalkyl-Substituted Thiophenes” Hong, X.; Tyson, J.C.; Middlecoff, J.S.; Collard, D.M. *Macromolecules*, **1999**, *32*, 4232

“Polymers of Fluoroalkyl- and Semifluoroalkyl-substituted Thiophenes” Tyson, J. C.; Middlecoff, J. S.; Collard D. M. *Polymer Preprints* **1997**, *38*, 191.

“Amphiphilic Cup-shaped (4-Alkylphenylazo)-substituted Calixarenes: Self- Assembly and Host-Guest Chemistry at the Air-Water Interface” Tyson, J.C.; Moore J.L.; Collard D.M.; Hughes, K.D. *Langmuir*, **1997**, *13*, 2068.

“Association Constants for Chromophoric Water-Soluble (4-Carboxyphenylazo)- substituted Calixarenes” Tyson, J.C.; Collard, D.M.; Hughes, K.D. *J. Inclusion Phenom.* **1997**, *29*, 109.

A2. Conference Presentation with Proceedings (Refereed)

“Polymers of Fluoroalkyl- and Semifluoroalkyl-substituted Thiophenes” Tyson, J. C.; Middlecoff, J. S.; Collard D. M. Presented at the National American Chemical Society Conference, San Francisco, CA April 1997.

“Amphiphilic and Water-Soluble Phenylazocalix[n]arenes: Langmuir-Blodgett Film Formation and Host-Guest Chemistry” Tyson, J.C.; Moore, J.L.; Collard, D.M.; Hughes, K.D. Presented at the National American Chemical Society Conference, Orlando, FL, August 1996.

“Water-Soluble and Amphiphilic Azocalix[4]arene derivatives: Langmuir-Blodgett Film Formation and Host-Guest Chemistry” Tyson, J.C.; Collard, D.M.; Hughes, K.D. Presented at the Southeastern and Southwestern Joint Regional Meeting of the American Chemical Society, Memphis, TN, November, 1995.

“Amphiphilic Calixarene Derivatives: Langmuir-Blodgett Formation and Host-Guest Chemistry” Tyson, J.C.; Collard, D.M.; Hughes, K.D. Presented at the Florida Advanced Materials Conference, Palm Coast, FL, March 1995.

“Monolayer of Molecular Hosts:

5,11,17,23-Tetrakis[(p-butylphenyl)azo]- 25,26,27,28-tetrahydroxycalix[4]arene” Tyson, J.C.; Collard, D.M.; Hughes, K.D. Presented at the Southeastern Regional Meeting of the American Chemical Society, Birmingham, AL, October, 1994.

B. PRESENTATIONS

- “Georgia Tech's science and math EXPLORE living learning community (LLC) supports student success,” Tyson, J.C., Collard, D.M., Presented via the University System of Georgia (USG) conference, May 2022.
- “Explore Living Learning Communities at Georgia Tech: Research and pre-health focused program for first year students,” Blandford, E. Tyson, J.C., Leavey, J. Collard, D.M. Presented via the University System of Georgia (USG) Learning Communities in STEM webinar, October 2020.
- “Strategic Targeting of Diverse Cohorts: A Glimpse into the Georgia Tech REU Program,” France, S. Collard, D.M., Tyson, J.C., Johnson, K. Presented at the National Meeting of the American Chemical Society, Chemical Education Division, San Diego, CA., August 2016.
- “Administrative Perspectives on Diversity,” Presented at the 2010 Graduate and Postdoctoral Diversity Programs Summit at the National American Chemical Society Conference, San Francisco, CA March 2010
- “Initiatives to create a supportive environment for graduate study: One department's story,” Collard, D.M. and Tyson, J.C. Presented at the National Meeting of the American Chemical Society, Chemical Education Division, Washington, DC, August 2009.
- “Applying and Getting Accepted to Graduate School,” Tyson, J.C. Presented at the National Meeting of the American Chemical Society, Undergraduate Program, Atlanta, GA April 2006.
- “Graduate Research Opportunities in Chemistry and Biochemistry Seminar,” Tyson, J.C. Presented at the National Meeting of the American Chemical Society, Undergraduate Program, New Orleans, LA, April 2003.
- “Successful Project Administration of a Graduate Assistance in Areas of National Need (GAANN) Program,” Tyson, J.C. St. Louis, MO, 2002.

C. GRANTS AND CONTRACTS

C1. AS PRINCIPAL INVESTIGATOR

- “Graduate Assistance in Areas of National Need in Biochemistry and Biophysics at Georgia Institute of Technology,” Tyson, J.C. (PI); Lieberman, R. (co-PI), Hud, N., Agarwal, V., Reddi, A., Schmidt-Krey, I. Funding Agency: U.S. Department of Education, \$303,396 per year for 2021-2024.
- “Graduate Assistance in Areas of National Need in Chemistry and Biochemistry at Georgia Institute of Technology,” Tyson, J.C. (PI); Lyon, L.A. (co-PI); Oden, K.L.;

Fernandez, F.; France, S.A., Kubanek, J.; Mons, M.; Collard, D.M. Funding Agency: U.S. Department of Education, \$266,532 per year for 2012-2016.

C2. AS CO-PRINCIPAL INVESTIGATOR

“STEM IV Initiative: USG Early Research Scholars: Early Immersion in Undergraduate Research,” Collard, D.M. (PI), Tyson, J.C. (co-PI). Funding Agency: University System of Georgia, \$50,000 per year for 2019-2022.

“Science and Math Research Training Scholarships,” Leavey, J., Mons, M., Tyson, J.C., Collard, D.M., Goldman, D.I. Funding Agency: National Science Foundation, \$131,002 per year for 2014-2019.

“Building Diverse and Inclusive Ph.D. programs in the College of Sciences at Georgia Institute of Technology through Active Recruitment,” Tyson, J.C. Funding Agency: Georgia Institute of Technology (Provost’s Excellence in Graduate Studies-PEGs fund), \$15,000 for 2019-2020.

“Graduate Assistance in Areas of National Need in Molecular Biophysics and Biotechnology at Georgia Institute of Technology,” Collard, D.M.; Oden, K.L. Barry, B.A.; Balog, E.M. Curtis, J.; Oyelere, A.K.; Schmidt-Krey, I.; Tyson, J.C. Funding Agency: U.S. Department of Education, \$266,532 per year for 2012-2016.

“Research Experience for Undergraduates in Chemistry and Biochemistry,” Collard, D.M.; Tyson, J.C. Funding Agency: National Science Foundation, \$90,000 per year for 2012-2016.

“Graduate Assistance in Areas of National Need in Chemistry and Biochemistry,” Collard, D.M.; Tyson, J.C. Funding Agency: U.S. Department of Education, \$217,760 per year, 2009-2012.

“Research Experience for Undergraduates in Chemistry and Biochemistry,” Collard, D.M.; Tyson, J.C. Funding Agency: National Science Foundation, \$82,750 per year for 2009-2012.

“Undergraduate Scholarships in Biomolecular Engineering, Science and Technology,” Collard, D.M.; Tyson, J.C.; Leavey, J.; Mons, M.; Agrawal, P; Fincannon, P. Funding Agency: National Science Foundation, \$119,598 per year for 2009-2014.

“The Chemistry-Biology Interface: Science, Engineering, and Technology-Beckman Scholarship Program,” Collard, D.M.; Tyson, J.C. Funding Agency: Beckman Foundation, \$110,000 for 2008-2011.

“Research Experience for Undergraduates in Chemistry and Biochemistry,” Collard, D.M.; Tyson, J.C.; Funding Agency: National Science Foundation, \$76,824 per year, 2006-2008.

“Graduate Assistance in Areas of National Need in Polymer Science and Engineering,” Collard, D.M.; Tyson, J.C. Funding Agency: U.S. Department of Education, \$131,000 per year, 2004-2007.

“Graduate Assistance in Areas of National Need in Chemistry and Biochemistry,” Collard, D.M.; Tyson, J.C. Funding Agency: U.S. Department of Education, \$152,000 per year, 2000-2003.

C3. AS SENIOR PERSONNEL OR CONTRIBUTOR

“Graduate Assistance in Areas of National Need in Polymeric Materials Science and Engineering at Georgia Institute of Technology,” Collard, D.M.; Oden, K.L., Russo, P, Reichmanis, E., Reynolds, J., Tyson, J.C. (contributor) Funding Agency: U.S. Department of Education, \$298,500 per year for 2018-2021.

“3M Summer Undergraduate Research Program,” Collard, D.M.; Tyson, J. C. (Contributor) Funding Agency: 3M Corporation, \$50,000 per year, 2011-2019.

“Broadening participation in undergraduate research in physics: A multi-institutional REU program,” Collard, D.M.; Curtis, J.; Oden, K.L.; Tyson, J.C. (Contributor). Funding Agency: National Science Foundation, \$89,087 per year, 2016-2018.

C4. PROPOSALS SUBMITTED BUT NOT FUNDED (last two years)

Tyson, J.C, Pollet, P., “IRES-Track 1: Undergraduate Research Experiences in Molecular and, Supramolecular Chemistry and Biochemistry at École Supérieure de Chimie Physique Électronique (CPE) in Lyon, France,” Funding Agency: National Science Foundation,” Requested funding: \$253,908, Award Period: 2021-2023.

“EXPLORE Transfer Success S-STEM Scholarships in the College of Sciences at Georgia Institute of Technology,” Leavey, J., Collard, D.M., Tyson, J.C., Margalit, D., DeStefano, L. Funding Agency: National Science Foundation, \$331,633 per year for 2020-2024.

D. OTHER SCHOLARLY AND CREATIVE ACCOMPLISHMENTS

“Georgia Tech-Lyon, France Study Abroad Program,” Tyson, J.C. (Program Director). Funding: Approximately \$300,000 per year (program fees and summer tuition from ~55 student participants per year), 2012-present.

“Georgia Tech-Barcelona Fall Study Abroad Program,” Tyson, J.C. (Program Director). Funding: Approximately \$270,000 per year (program fees and summer tuition from ~30 student participants per year), 2017-present.

“Georgia Tech Explore Living Learning Community,” Tyson, J.C. (Faculty Program Director). Funding: Approximately \$176,000 per year (program fees from ~220 student participants per year), 2021-present.

E. SOCIETAL AND POLICY IMPACTS

Provided scholarships and professional development opportunities for financially-needy, U.S. citizens and permanent residents from diverse backgrounds, working towards completion of a Ph.D. in Chemistry at Georgia Institute of Technology (via: Graduate Assistance in Areas of National Need in Chemistry and Biochemistry at Georgia Institute of Technology,” Tyson, J.C. (P.I.), 2012-2016, Tyson, J.C. (Co-P.I.), 2000-2007, 2009-2012; “Graduate Assistance in Areas of National Need in

Molecular Biophysics and Biotechnology at Georgia Institute of Technology,” Tyson, J.C. (Senior Personnel), 2012-2016).

Provided undergraduate research awards and professional development activities for a diverse cohort of students to participate in full-time research under the supervision of a faculty-member in the School of Chemistry and Biochemistry each summer (via: “Research Experience for Undergraduates in Chemistry and Biochemistry,” Tyson, J.C. (Co-P.I.), 2006-2016; “3M Summer Undergraduate Research Program,” Tyson, J. C. (Co-P.I.), 2011-2017; “Broadening participation in undergraduate research in physics: A multi-institutional REU program,” Tyson, J.C. (Contributor), 2016-2018).

Provided a study abroad experience in Lyon, France and Barcelona, Spain for undergraduates pursuing bachelor’s degree in chemistry, biochemistry, biology, chemical & biomolecular engineering, biomedical engineering as well as students with a prehealth concentration (via: “Georgia Tech-Lyon, France Study Abroad Program,” Tyson, J.C. (Program Director), 2012-present and “Georgia Tech-Lyon, Barcelona Fall Study Abroad Program,” Tyson, J.C. (Program Director).

Supported Georgia Tech undergraduates majoring in science, math, and engineering to completion of their bachelor’s degree via scholarships and co-curricular activities. (via: “Science and Math Research Training Scholarships,” Tyson, J.C., (Co-P.I.), 2014-2018; “Undergraduate Scholarships in Biomolecular Engineering, Science and Technology,” Tyson, J.C. (Co-P.I.), 2009-2014; “The Chemistry-Biology Interface: Science, Engineering, and Technology-Beckman Scholarship Program,” Tyson, J.C. (Co-P.I., 2008-2011).

F. Other Professional Activities

National Science Foundation Graduate Research Fellowship Program Panel Reviewer, 2016.

V. TEACHING

A. COURSES TAUGHT

Term	Course	Course Title	# of enrolled
Fall 2023	CHEM 1315	Survey of Organic Chemistry	5 students
Fall 2023	CHEM 2311	Organic Chemistry I	9 students
Summer 2023	CHEM 2801	Special Topics-Chemistry	1 student
Summer 2023	CHEM 2380	Synthesis Lab I	26 students
Summer 2023	CHEM 2312	Organic Chemistry II	21 students
Fall 2022	CHEM 1315	Survey of Organic Chemistry	5 students
Fall 2022	CHEM 2311	Organic Chemistry I	12 students
Summer 2022	CHEM 2801	Special Topics-Chemistry	4 students
Summer 2022	CHEM 2380	Synthesis Lab I	23 students

Summer 2022	CHEM 2312	Organic Chemistry II	19 students
Spring 2021	CHEM 2312	Organic Chemistry II	220 students
Fall 2020	GT 1000	Introduction to College Life	23 students
Spring 2020	CHEM 2313	Organic/Bioorganic Chemistry	16 students
Spring 2020	CHEM 2312	Organic Chemistry II	9 students
Spring 2020	CHEM 2380	Synthesis Lab I	26 students
Fall 2019	CHEM 2801	Special Problems Chemistry	5 students
Fall 2019	CHEM 2311	Organic Chemistry I	12 students
Fall 2019	CHEM 1315	Survey of Organic Chemistry	5 students
Summer 2019	CHEM 2801	Special Problems Chemistry	4 students
Summer 2019	CHEM 2380	Synthesis Lab I	23 students
Summer 2019	CHEM 2312	Organic Chemistry II	20 students
Fall 2018	CHEM 2311	Organic Chemistry I	11 students
Fall 2018	CHEM 1315	Survey of Organic Chemistry	8 students
Summer 2018	CHEM 2801	Special Problems Chemistry	3 students
Summer 2018	CHEM 2380	Synthesis Lab I	28 students
Summer 2018	CHEM 2312	Organic Chemistry II	22 students
Spring 2018	CHEM 2311	Organic Chemistry I-distance	16 students
Fall, 2017	CHEM 2311	Organic Chemistry I	9 students
Fall, 2017	CHEM 1315	Survey of Organic Chemistry	13 students
Summer, 2017	CHEM 2311	Organic Chemistry I	15 students
Summer 2017	CHEM 2312	Organic Chemistry II	24 students
Summer 2018	CHEM 2380	Synthesis Lab I	24 students
Summer, 2016	CHEM 2311	Organic Chemistry I	16 students
Summer 2016	CHEM 2312	Organic Chemistry II	26 students
Summer 2016	CHEM 2380	Synthesis Lab I	28 students
Summer 2016	CHEM 2801	Special Topics	3 students
Summer 2015	CHEM 2311	Organic Chemistry I	5 students
Summer 2015	CHEM 2312	Organic Chemistry II	28 students
Summer 2015	CHEM 2380	Synthesis Lab I	27 students
Summer 2015	CHEM 2801	Special Topics	6 students
Summer 2014	CHEM 2312	Organic Chemistry II	17 students
Summer 2014	CHEM 2380	Synthesis Lab I	18 students
Summer 2014	CHEM 2801	Special Topics	10 students
Summer 2013	CHEM 2312	Organic Chemistry II	16 students
Summer 2013	CHEM 2380	Synthesis Lab I	20 students
Summer 2013	CHEM 2801	Special Topics	10 students
Spring 2013	CHEM 1315	Survey of Organic Chemistry	188 students
Spring 2013	CHEM 8902	Special Problems-RCR	62 students
Fall 2013	CHEM 8901	Special Problems	47 students
Fall 2013	CHEM 8903	Special Problems	30 students
Fall 2013	CHEM 8903	Special Problems	30 students

Summer 2012	CHEM 2312	Organic Chemistry II	11 students
Summer 2012	CHEM 2380	Synthesis Lab I	17 students
Fall 2012	CHEM 1315	Survey of Organic Chemistry	148 students
Fall 2012	CHEM 8901	Special Problems	65 students
Fall 2011	CHEM 8901	Special Problems	42 students
Fall 2011	CHEM 8903	Special Problems	37 students
Summer 2011	CHEM 2311	Organic Chemistry I	84 students
Summer 2010	CHEM 8902	Special Problems-RCR	29 students
Summer 2010	CHEM 2311	Organic Chemistry I	87 students

B. OTHER TEACHING ACTIVITIES

An asynchronous, online version of CHEM 2311-Organic Chemistry was developed and offered in the spring of 2018 at Georgia Tech for high school dual enrollment students.

A flipped version of CHEM 2311-Organic Chemistry I was developed in the spring of 2015 and first offered as part of the Georgia Tech Lyon, France Study Abroad program in the summer of 2015. A complete set of lecture videos was created for the course. The flipped format continues to be used in the Lyon study abroad program.

CHEM 2801-Special Topics Chemistry: History and Scientific Discoveries (1 credit) course was developed and first offered as part of the Georgia Tech Lyon, France Study Abroad program in the summer of 2013. The course continues to be used in the Lyon study abroad program.

VI. SERVICE

A. PROFESSIONAL CONTRIBUTIONS

Co-Organizer of Herty Medal Undergraduate Research Symposium by the Georgia Section of the American Chemical Society, Atlanta, GA, October 2006 and March 2007.

Co-Organizer of the Southeast Undergraduate Research Conference (SURC) at Georgia Tech in 2005.

Member of Alpha Chi Sigma Chemistry Professional Fraternity, 1992 to present.

B. PUBLIC AND COMMUNITY SERVICE

Co-Organized Explore Science and Math Open House Programs for 200-250 admitted science and math undergraduates and ~400-500 guests in February and April 2015-2022.

Organized and directed approximately 20 sessions of "It's All about Science and Math" visitation sessions in spring and fall semesters (2015-2022 each year). Each session has approximately 20-35 prospective students and guests visiting campus.

Organized and directed summer College of Sciences' academic information sessions in summer semester (2015-2022). Each session has approximately 30-50 prospective high school students and guests visiting campus.

Presented College of Sciences' academic information and general admission information to the following high school science/math classes or clubs (2015-2020): South Forsyth High School, Harrison High School, Northgate High School, Dacula High School, Wheeler Magnet High School, Gwinnett School of Math and Science High School, Tift County High School, Lowndes School High. Organized and directed the following high and middle school class/groups to visit Georgia Tech: KIPP Atlanta Collegiate High School, Osborne High School, Lowndes High School, Lindley Middle School School, Radloff Middle School.

C. INSTITUTE CONTRIBUTIONS

Institute Faculty Executive Board, Member (Vice Chair, 2020-2021, 2021-2022, 2022-2023).

Institute Complete College Georgia Committee (2019-current).

Institute Diversity, Equity, and Inclusion Council Member (2022)

Institute Faculty Senate, Member (2018-2023).

Institute Executive Board, Member (2011-2014).

Institute Graduate Curriculum Committee, Executive Board Liaison (2013-2014).

Institute Undergraduate Curriculum Committee, Executive Board Liaison (2011-2013).

Institute Graduate Curriculum Committee, Executive Board Liaison (2013-2014).

Institute Academic Services Committee, Chair (2009-2010), Member (2007-2009).

School of Chemistry and Biochemistry Executive Committee, Member (2006-2009).

School of Chemistry and Biochemistry Graduate Committee, Chair (2011-2013), Co-Chair (2000-2011), Member (1998-2013).