Date: September 2025

Name: **Partha S. Ray**, Ph.D.

Program & Institution: Chemistry, University of West Georgia, Carrollton, GA 30118-4150

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Teaching Statement: I am passionate about teaching the principles and practice of Organic Chemistry, which is essential to understanding biological processes (including diseases and disorders), and for drug discovery and synthesis. Organic chemists are primarily responsible for the development of medicines without which health care professionals would be powerless to treat human ailments and our lives would be much more precarious.

Research Statement: I am interested in the design, synthesis and characterization of folate-based molecules as potential inhibitors of some key enzymes involved in DNA biosynthesis. The goal is to discover anti-cancer drugs.

I. Employment History

POSITION	DEPARTMENT	INSTITUTION/COMPANY	PERIOD
Professor	Chemistry	University of West Georgia	Aug 06- current
Associate Professor	Chemistry	University of West Georgia	Aug 00-July 06
Assistant Professor	Chemistry	University of Memphis	Aug 93-May 00
Research Chemist	Chemistry	FMC Corporation, Princeton, NJ	Jan 88-July 93
Postdoc Research Associate	Chemistry	Princeton University	Oct 85-Dec 87
Medicinal Research Chemist	Medicinal Chemistry	G.D. Searle, High Wycombe, UK	April 83-Sept 85
Postdoc Research Associate	Chemistry	University of Southampton, UK	Oct 81-March 83

II. Teaching/Instructional Assignments

Courses taught routinely at UWG

Organic Chemistry Lecture & Lab, Parts I & II Advanced Topics in Organic Chemistry Advanced Synthesis Lab (team taught) Sophomore Chemistry Seminar

Classes taught previously at UWG

Senior Seminar Synthesis of Complex Natural Products Survey of Chemistry II

Graduate level classes taught at the University of Memphis (1993-2000)

Intermediate Organic Chemistry Synthetic Organic Chemistry Heterocyclic Chemistry

My Research Students Who Graduated from UWG and Their Career Outcome

Name	Y Grad	Grad School	MS/PhD/MD/ DDS Year	Last Known Position
Daniel P. Parker	2002	U Colorado, Boulder	MS; 2004	Chemist, Pfizer, NY
Allison L. Kimball	2002	Mercer	MD; 2008	GP
Daniel L. Parker	2003		,	Manager, CDC, Atlanta
Eric Huddleston	2003	UGA	PhD; 2013	Associate Prof., U North GA
Jessica Harris Kelso	2004			Manager, KEMRON Enviromental Services, Atlanta
Jesse McAtee	2005	U Hawaii	MS; 2009	1.Product Specialist, Johnson
		U Delaware	PhD ; 2015	Matthey, NJ; 2.Business Development Manager (Western Region), Dottikon ES America, Inc. Chanhassen, Minnesota
Holley Jeter	2005	UAB	MD; 2011	Pediatrician
Joshua Lawler	2006		PharmD	Pharmacist
Danielle McAtee	2006	U Hawaii	MS; 2009	Synthetic Chemist, BASF, NJ
(Shacklady)		U Delaware	PhD ; 2014	
Morin Frick	2007	U Colorado, Boulder	MS ; 2010	Synthetic Chemist, Cedarburg Hauser Pharmaceuticals, CO
Zoeisha Chinoy	2008	UGA	PhD ; 2014	Research Chemist, Bordeaux Research Institute
Rachel Vaden	2008	U Utah	PhD; 2014	1.Post-doc., U Texas, Southwestern; 2. Pfizer, San Diego, Senior Scientist, Oncology Division
Christina Wysoczynski	2009	U Colorado, Denver	PhD ; 2016	Time off to raise a family
Jay Lanham	2009			ITS, BlueWave Computing, Atlanta
Shams Reaz	2011	U Utah/Michigan State	MD-PhD; 2018	MD
Lilian Ha	2011	UCG	DDS; 2017	Dentist
Elise Brazil (Middleton)	2012			Chemist at Southwire, Carrollton
Mohamadou Aminou	2012			Polymer Chemist at Southwire, Carrollton
Luisalberto Gonzalez	2013	U Washington, St. Louis MO	PhD, 2019	Chemistry Patent Examiner, U.S. Patent & Trademark Office
Andrew Jackson	2014			?
Austin Gann	2015	GSU	MS ; 2017	1.Chemist, Solvay Specialty Polymers, Atlanta; 2. Piper Plastics, Phoenix, Arizona; 3. Footprint, Materials Intergration

				Manager, Phoenix, AZ; 4. Nestle,
				Geneva, Switzerland
Robert Lovvorn	2016	GSU	MS ; 2020	1. Polymer Chemist, Mapei,
				Calhoun, GA 2. Chemist, Pace
				Analytical, Boston, MA
Mariam Agbe	2018		PharmD	Pharmacist
Austin Davis	2019	Colorado State (did not attend)		Chemist, Johnson & Johnson, NJ
Andrew Sennett	2019	U of Arizona	MS; 2023	High School Teacher, Tucson, AZ
Dali Davis	2019	Princeton U	PhD; 2024	Research Chemist, CDC, Atlanta
Kimberly Marroquin	2019	Admitted to Emory U, transferred after 1 year to MS in Computer Science at UWG	MS; 2022	
Adam Hosey	2020	Auburn U	MS; 2024	MilliporeSigma, Sheboygan Falls, WI
Russell Ives	2021			Chemist, Pace Analytical, Boston, MA
Kaleb Eaton	2021	MD student at Campbell U, NC		
Kenzie Stoup	2023	MD student at Auburn University		

Abigail Wester	2023	Chem Grad Student at UGA	
Melody Achaogu	2024		Applying for Med School

Undergraduate Student Work Directed

Total number of undergraduate research students supervised: 56

Student	Semester	Placement
Caden Innis	F24, S25, F25	junior
Melody Ahuchaogu	S24, F24	Applying for Med School
Abigail Wester	F22, S23, F23,	Chem Grad School, UGA
Kenzie Stoup	S22, F22, S23	Edward Via College of Osteopathic Medicine (Spring 24)
Christian McDowell	S22, F22, S23	Transferred to Auburn U (Fall 23)
Kaleb Eaton	S20, F21	Med School, Campbell University, NC (Fall 22)
Adam Hosey	F19, S20	Chem Grad School, Auburn U (Fall 2020)
Russell Ives	F19, S20, F21	Pace Analytical, Boston, MA (Jan 22)
Holly Bearden	F19	High School Chemistry Teacher
Kimberly Marroquin	S18,U18,S19	Chem Grad School, Emory (Fall 2019)
Dali Davis	F17,S18,F18,S19	Chem Grad School, Princeton (Fall 2019)
Andrew Sennett	F17,S18,F18,S19	Chem Grad School, U of Arizona (Fall 2019)
Isaiah Rushin	S17,U17,F17	Changed to Biology Major
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Marian Agbe	F16, S17,F17	Graduated, applying to Med School
Alexandria Webber	F15, S16	Transferred to UGA (F16)
Trisha Dalapati	S15	Transferred to UGA (F15)
Austin Davis	S15,F15,S16,F18,S19	Chemist, Johnson & Johnson, NJ
Robert Lovvorn	F14,S15,F15,S16	MS from GSU (Fall 2020)
Austin Gann	S13,U13,F13,S14,U14,F14	· /
	S15,U15	
Andrew Jackson	S13,U13,F13,S14	
Luisalberto Gonzales	F11,S12,U12,F12,S13	PhD from Washington U, MO (Fall 2019)
Mohamadou Aminou	U11,F11,S12,U12,F12	Polymer Chemist at Southwire (Spring 13)
Shams Reaz	F09,S10,F10,S11	MD/PhD Pharmaceutics U of Utah/Michigan State (Fall 11)
Lilian Ha	F09,S10,F10,S11	Dental School, MCG (Fall 12)
Elise Middleton Brazil	S09,F10,S11,U11,F11,S12	Southwire (Summer 12)
Christina Wysoczynski	F07,S08,F08,S09	Ph.D. from U of Colorado (Fall 09)
Rachel Vaden	S08,U08,F08	Ph.D. from U of Utah (Fall 09)
Zoeisha Chinoy	F06,S07,F07,S08	Ph.D. from UGA (Spring 2014); Post-doc Bordeaux Research Inst
Jay Lanham	S06,07,08U06,F06,07,08	Systems Administrator, BlueWave Computing, Atlanta
Joshua Lawler	F05,S06	Pharmacy Tech.
Elizabeth Denton	REU Student (U05)	Went back to U of Arizona
Morin Frick	S05,U05,S06,U06,F06,S7	MS, U Colorado, Boulder (2010). Chemist, Cedarburg Hauser
		Pharmaceuticals, Colorado.
Danielle Shacklady	S05,U05, S06	PhD from U of Delaware (S 2014), MS U Hawaii (S 2009). BASF
Holley Jeter	S04,S05	MD from UAB Med School
Jesse McAtee	F03,S04,F04,S05	PhD from U Delaware, MS from U Hawaii
Jessica Harris Kelso	F02,S03,F03,S04	Project Manager, KEMRON Environmental Services, Atlanta
Jeffery Gaulding	REU Student (U04)	Went back to Emory University
Eric Huddleston	S02,U02	PhD from UGA (Spring 2013). Associate Prof. at U of N. Georgia
Hang Le Nguyen	REU Student (U03)	Went back to Georgia State U
Daniel L. Parker	S01,U01,F01,S02,F02	Chemist, CDC, Atlanta (Fall 03)
John Lee	REU Student (U01)	Went back to UT, Chattanooga then Chem Grad School, (NC State)
Daniel P. Parker	S01,F01,S02	MS from U Colorado, Boulder (04). Chemist, Pfizer, NY
Allison L. Kimball	S01, F01	MD from Mercer Medical School

Undergraduate Students Supervised at the University of Memphis

Date	Placement
F98, S99	Dental School (U of Tennessee)
S98, F98	Medical School (U of Tennessee)
F97, S98	GIL Technologies, Collierville, TN
F97, S98	
S97, F97	
S97	
F96, S97	Medical School (U of Tennessee)
F95, S96, U96	Medical School (U of Tennessee)
S96, U96, F96	Grad School (Microbiology, U of Memphis)
S95, F95	Medical School (U of Tennessee)
S95, F95	Pharmacy School (U of Tennessee)
S94, F94	Pharmacy School (U of Tennessee)
S94, F94	
F93	Medical School (U of Chicago)
	F98, S99 S98, F98 F97, S98 F97, S98 S97, F97 S97 F96, S97 F95, S96, U96 S96, U96, F96 S95, F95 S95, F95 S94, F94 S94, F94

Undergraduate Senior Thesis Directed

26. December 2023: Abigail Wester: Studies Towards the Synthesis of a Potential Anti-cancer Drug

- 25. December 2021: Russell Ives: Attempted Preparation of an Important Intermediate Towards the Synthesis of a Potential Anticancer Agent
- 24. May 2020: Adam Hosey: Synthetic Studies to 2-amino-6,7,8,9-tetrahydro-6-(4-iodophenyl)-3*H*-pyrimido[4,5-*e*][1,4]diazenpin-4(5H)-one
- 23. May 2019: Dali Davis: Synthetic Studies of Pyrimidodiazepine-based Non-classical anti-tumor Agents
- 22. May 2019: Austin Davis: Synthesis of Intermediates to Potential Pyrimidodiazepine-Based GARFT/TS Inhibitors
- 21. May 2019: Kimberly Marroquin: Synthetic Methodology for (S)-2-(4-(2-(-amino-89-dihydro-4-hydroxy-5H-pyrimido[4,5-e][1,4]diazepin-6(7H)-yl)ethyl)benzamido)pentanedioic acid as a Potential Anti-cancer agent
- 20. May 2019: Andrew Sennett: Synthesis of Classical and non-classical Antifolates
- 19. May 2016: Robert Lovvorn: Attempted Synthesis of a 2,4-Diaminopyrimidodiazepine-based Folate (1) as a Potential Inhibitor of Dihydrofolate Reductase (DHFR).
- 18. April 2015: Austin Gann: Synthetic Studies Towards a Pyrimidodiazepine Heterocyclic Model Compound: A Model for the Synthesis of a Potential Anti-tumor Agent.
- 17. December 2014: Andrew Jackson: Attempted Synthesis of a 2-Amino-7-benzyl-6-hydroxy-7H-purin-8(9H)-one Derivative: A Potential Inhibitor of Folate Requiring Enzymes.
- 16. April 2013: Luisaberto Gonzalez: Synthestic Studies Towards a Pyrimidodiazepine Heterocycle as a Model for a Pyrimidodiazepine-Based Folate as a Potential Anti-tumor Agent.
- 15. December 2012: Mohamadou Aminou: Synthetic Approach Towards a Pyrimidodiazepinone as a Model Compound for the Synthesis Anticancer Agents.
- 14. July 2012: Elise Brazil: Synthesis of 2-Amino-7-benzyl-6-hydroxy-7H-purin-8(9H)-one Derivatives as Potential Antitumor Agents via Inhibition of Folate Requiring Enzymes.
- 13. May 2011: Shams Reaz: Studies on the Synthesis of N1-Alkyl-1,4-diazepin-5-ones via the Schmidt and Beckmann Reactions.
- 12. December 2008: Rachel Vaden: Development of Synthetic Methods to N-alkyl diazepinones and N-alkyl purines
- 11. May 2008: Zoeisha Saam Chinoy: Progress Towards the Synthesis of Pyrimidodiazepine-Based Folates as Pontential Inhibitors of Glycinamide Ribonucleotide Formyltransferase
- 10.December 2007: Jay J. Lanham: A Versatile Approach to a Series of Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase
- 9. May 2007: Morin Frick: Progress Towards the Synthesis of Pyrimidodiazepine-Based Folates as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase

- 8. May 2006: Danielle Shacklady: Progress Towards the Synthesis of Pyrimidodiazepine-Based Folates as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase (GARFT)
- 7. May 2005: Jesse McAtee: Synthetic Progress in the Preparation of a Pyrimidodiazepine-Based Folate as a Potential Inhibitor of GARFT
- 6. May 2004: Jessica L. Harris: Synthetic Progress in the Preparation of a Pyrimidodiazepine-Based Folate as a Potential Inhibitor of GARFT
- 5. May 2003: Daniel L. Parker: Progress Towards the Synthesis of a Pyrimidodiazepine-Based Folate as a Pontential Inhibitor of Glycinamide Ribonucleotide Formyltransferase
- 4. May 2002: Daniel P. Parker: Studies Toward the Synthesis of a Folate Pyrimidoazepine Analogue as a Potential Inhibitor of Glycinamide Ribonucleotide Formyl Transferase.
- 3. July 1999: Heather L. Powell: The Search for Antitumor Agents: Steps in the Synthesis of Pyrimidodiazepine-Based Folates.
- 2. May 1999: Duc Huynh: Synthesis of 2-Amino-4,6-dichloro-5-formylpyrimidine.
- 1. August 1998: Tim Austill: Synthesis of a Potential Antitumor Presursor 3,5,6-Trichloro-1,2,4-triazine.

Honors Students Taught

Organic Chemistry I: Toma S. Omonuwa, Laura K, Alton, Amitha Omonuwa

Organic Chemistry II: Toma S. Omonuwa, Kristen M. Lamb, Jrsse R. McAtee, Margret W. Chang, Olanrewaju Jimoh, Jeninne LaCroix, Christina Wysoczynski

Faculty Directed Research: Jesse R. McAtee

Advanced Synthesis Lab III: Jesse R. McAtee, Dali Davis

Advanced Topics in Organic Chemistry: Phoebe P. Tchoua, Bette S. Ford, Joanna Denton, Amann Kazerouni, Dali Davis, Abigail Denny

Student Presentations at National and Regional Meetings (presenter underlined)

61. **November 11, 2023**: Christian McDowell, <u>Abigail Wester</u>, and Partha Ray, Synthetic studies to a pyrimido-

diazepine-based anti-folate as a potential anti-cancer drug, Oral Presentation, Georgia Undergraduate Research Conference (GURC), Valdosta State University, Valdosta, GA.

- 60. October 27, 2023: Christian McDowell, <u>Abigail Wester</u>, and Partha Ray, Synthetic studies to a pyrimido-diazepine-based anti-folate as a potential anti-cancer drug, Poster Presentation, 75th Southeastern Regional Meeting of the American Chemical Society (SERMACS), Durham, NC.
- 59. **March 4, 2023**: <u>Christian McDowell, Abigail Wester and Partha Ray, Synthetic studies to a pyrimido-diazepine-based anti-folate as a potential anti-cancer drug, Poster Presentation, Georgia Science Bowl State Competition, University of West Georgia, Carrollton, Georgia.</u>
- 58. **November 2022**: Christian McDowell, Kenzie Stoup and Partha Ray, Synthetic studies to a pyrimido-Updated 9/28/25

- diazepine-based anti-folate as a potential anti-cancer drug, Poster Presentation, Georgia Undergraduate Research Conference (GURC), Valdosta State University, Valdosta, GA.
- 57. **October 2019**: Abigail Denny, Partha Ray, Spencer Slattery, Design and Synthesis of Fe(II) Complexes Composed of a Novel Tridentate Ligand for Studying Spin State Transition Coupled to Proton Transfer, Poster Presentation at the 71st Southeastern Regional Meeting of the American Chemical Society (SERMACS), Savannah, GA.
- 56. October 2018: Abigail Denny, Adam Hand, Partha Ray, Spencer Slattery, Design and Study of Ru(II) and Fe(II) Nitrogen Heterocyclic Complexes Which Undergo Proton Coupled Electron Transfer, Poster Presentation at the Southeastern Regional Meeting of the American Chemical Society (SERMACS), Augusta, GA.
- 55. **November 3, 2018**: <u>Kimberly Marroquin</u>, <u>Austin Davis</u>, and Partha Ray, Synthetic studies to a pyrimidodiazepine-based anti-folate as a potential anti-cancer drug, 70th Southeastern Regional Meeting of the American Chemical Society (SERMACS), Augusta, GA.
- 54. **November 3, 2018**: <u>Dali Davis</u>, <u>Andrew Sennett</u>, and Partha Ray, Synthetic studies to pyrimidodiazepine-based non-classical anti-folates as potential anti-cancer agents: probing the para-aryl position, 70th Southeastern Regional Meeting of the American Chemical Society (SERMACS), Augusta, GA.
- 53. **April 7, 2018**: <u>Kimberly Marroquin</u>, Austin Davis, and Partha Ray, Synthetic studies to a pyrimidodiazepine-based anti-folate as a potential anti-cancer drug, Georgia-Alabama Louis Stokes Alliance for Minority Participation (GA-AL LSAMP) Annual Research Symposium, UWG.
- 52. **April 7, 2018**: <u>Dali Davis</u>, Andrew Sennett, and Partha Ray, Synthetic studies to pyrimidodiazepine-based non-classical anti-folates as potential anti-cancer agents: probing the para-aryl position, Southern Regional Honors Council, Washington, D.C.
- 51. **November 11, 2017**: Mariam Agbe, Isaiah Rushin, and Partha Ray, Synthetic studies to pyrimidodiazepin-based non-classical anti-folates as potential anti-cancer agents, Southeast Regional Meeting of the American Chemical Society (SERMACS), Charlotte, NC.
- 50. **November 11, 2017**: Adam Hand, Kimberly Marroquin, Partha Ray, and Spencer Slattery, Regulating electronic behavior of bis-terpyridine Fe(+2)and Ru(+2) via steric and inductive influence of ligand substituents, Southeast Regional Meeting of the American Chemical Society (SERMACS), Charlotte, NC 49. **April 22, 2017**: Mariam Agbe, <u>Isaiah Rushin</u>, and Partha Ray, Synthetic Studies Towards Potential Anticancer Drugs Via Inhibition of Folate Requiring Enzymes, LSAMP Research Conference, Morehouse University, Atlanta, GA.
- 48. **March 13, 2015**: <u>Austin W. Gann</u>, and Partha S. Ray, "Synthesis of 2-Amino-6,7,8,9-tetrahydro-6-phenethyl-3H-pyrimido[4,5-e][1,4]diazepin-4(5H)-one: A Model for a Pyrimido[4,5-e][1,4]diazepine-Based Folate as a Potential Anti-cancer Agent", Annual Chemistry Research Symposium at Georgia State University, Atlanta, Georgia.
- 47. **March 13, 2015**: <u>Li-Li Chen</u>, Nicki Hogan, Partha Ray, and Spencer Slattery. "Synthesis of a New Tridentate Ligand for Studying the Coupling of Proton Transfer with Electronic Properties of Fe(II)." Annual Chemistry Research Symposium at Georgia State University, Atlanta, Georgia.
- 46. **October 19, 2014**: <u>Austin W. Gann</u>, and Partha S. Ray, "Synthesis of 2-Amino-6,7,8,9-tetrahydro-6-phenethyl-3*H*-pyrimido[4,5-*e*][1,4]diazepin-4(5*H*)-one: A Model for a Pyrimido[4,5-*e*][1,4]diazepine-Based Folate", Southeast Regional Meeting of the American Chemical Society (SERMACS), Nashville, Tennessee.
- 45. **October 19, 2014**: <u>Li-Li Chen</u>, Nicki Hogan, Partha Ray, and Spencer Slattery. "Synthesis of a New Tridentate Ligand for Studying the Coupling of Proton Transfer with Electronic Properties of Fe(II)." Southeast Regional Meeting of the American Chemical Society (SERMACS), Nashville, Tennessee.
- 44. **November 15, 2013**: Andrew Jackson, Elise Brazil, Rachel Vaden, Partha S. Ray, "Synthesis of 2-Amino-7-benzyl-6-hydroxy-7H-purin-8(9H)-one Derivatives as Potential Antitumor Agents via Inhibition of Folate Requiring Enzymes", Southeast Regional Meeting of the American Chemical Society (SERMACS), Atlanta, Georgia.

- 43. **November 15, 2013**: <u>Austin Gann</u>, Luisalberto, Partha S. Ray, "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", Southeast Regional Meeting of the American Chemical Society (SERMACS), Atlanta, Georgia.
- 42. **November 16, 2012**: Mohamadou Aminou, Luisalberto Gonzalez, Partha Ray, "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", Southeast Regional Meeting of the American Chemical Society (SERMACS), Raleigh, North Carolina.
- 41. **November 16, 2012**: Elise Brazil and Partha Ray, "Synthesis of 2-Amino-7-benzyl-6-hydroxy-7H-purin-8(9H)-one Derivatives as Potential Antitumor Agents via Inhibition of Folate Requiring Enzymes", Southeast Regional Meeting of the American Chemical Society (SERMACS), Raleigh, North Carolina.
- 39. **April 13, 2012**: Mohamadou Aminou, Luisalberto Gonzalez, Partha Ray, "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", 44th Annual American Chemical Society South Eastern Undergarduate Research Conference (SURC), Mississippi State University, Mississippi.
- 38. **December 4, 2010**: <u>Lilian Ha</u>, Shams Reaz, Partha Ray, "Synthesis of N-alkyl 1,4-diazepinones via Schmidt ring expansion chemistry", American Chemical Society Joint South East/South West Regional Meeting, New Orleans, Louisiana.
- 37. **April 16, 2010**: <u>Lilian Ha</u>, Shams Reaz, Partha Ray, "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", National Conference on Undergraduate Research (NCUR), University of Montana, Missoula, Montana.
- 36. April 16, 2009: Wysoczynski, Christina; Lanham, Jay, Ray, Partha S. "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", National Conference on Undergraduate Research (NCUR), University of Wisconsin-La Crosse, Wisconsin.
- 35. October 27, 2007: <u>Lanham, Jay</u>; Frick, Morin; Ray, Partha S. "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", 59th Southeast Regional Meeting of the American Chemical Society, Greenville, South Carolina. Paper no. 818.
- 34. **March 26, 2007**: <u>Lanham, Jay</u>; Frick, Morin; Chinoy, Zoeisha; Ray, Partha S. "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", 233rd National Meeting of the American Chemical Society, Chicago, IL. Paper no. 1314.
- 33. **November 3, 2006**: <u>Frick, Morin</u>; Lanham, Jay; Chinoy, Zoeisha; Ray, Partha S. "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase, 58th Southeast Regional Meeting of the American Chemical Society, Augusta, Georgia. Paper no. 766.
- 32. **April 6, 2006**: Shacklady, Danielle; Frick, Morin; Denton, Elizabeth; Ray, Partha S. "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", National Conference for Undergraduate Research (NCUR), University of North Carolina, Asheville, North Carolina.
- 31. **December 3, 2005**: Shacklady, Danielle; Frick, Morin; Denton, Elizabeth; Ray, Partha S. "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", overall winner (\$1,000 first prize) for oral presentation at the Southeastern Conference on Undergraduate Research at Emory (SCURE), Emory University, Atlanta, Georgia.
- 30. **November 2, 2005**: <u>Shacklady, Danielle</u>; Frick, Morin; Denton, Elizabeth; Ray, Partha S. "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", 57th Southeast/61st Southwest Joint Regional Meeting of the American Chemical Society, Memphis, Tennessee.
- 29. **August 29, 2005**: <u>Danielle Shacklady</u>, Morin M. Frick, Elizabeth B. Denton, and Partha S. Ray, "Progress Towards the Synthesis of Pyrimidodiazepine-based Folates as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase", 230th National American Chemical Society Meeting, Division of Chemical Education, Washington, D.C. Paper no. 211.

- 28. **April 7, 2005**: <u>Jesse McAtee</u>, "Progress Towards Synthetic Routes to Pyrimidodiazepine-based Folates", National Conference for Undergraduate Research, Lexington, Virginia.
- 27. **February 25, 2005**: <u>Jesse McAtee</u>, "Progress Towards Synthetic Routes to Pyrimidodiazepine-based Folates", 2005 Georgia Collegiate Honors Council Meeting, Clayton College and State University, Morrow, GA.
- 26. **November 13, 2004**: Noah Huddleston, <u>Jeffrey Gaulding</u>, Jesse McAtee, Holley Jeter, and Partha Ray, "Synthesis of a Useful Pyrimidodiazepine Intermediate for the Preparation of Potential Antitumor Agents", Antitumor Agents", 56th Southeast Regional Meeting of the American Chemical Society, Durham, North Carolina. Paper no. 796.
- 25. **November 13, 2004**: <u>Jesse McAtee</u>, Holly Jeter, Jonathan Meyer, Noah Huddleston, Jessica Harris, Hang Nguyen, and Partha Ray, "Synthesis of a Useful Pyrimidodiazepine Intermediate: Preparation of Potential Antitumor Agents", National Collegiate Honors Society Conference, New Orleans, Louisiana.
- 24. **March 29, 2004**: <u>Noah Huddleston</u>, Jessica Harris, Hang Nguyen, and Partha Ray, "Synthesis of a Useful Pyrimidodiazepine Intermediate for the Preparation of Potential Antitumor Agents", 227th National American Chemical Society Meeting, Division of Chemical Education, Anaheim, California. Paper no. 509.
- 23. **November 16, 2003**: Noah Huddleston, <u>Jessica Harris</u>, Hang Nguyen, and Partha Ray, "Synthesis of a Useful Pyrimidodiazepine Intermediate for the Preparation of Potential Antitumor Agents", 55th Southeast Regional Meeting of the American Chemical Society, Atlanta, Georgia. Paper no. 1051.
- 22. **November 16, 2003**: <u>Joseph Chambers</u>, Bryan Eaves, Danny Parker, Partha Ray, and Spencer Slattery, "Substituent Effects on Redox and Spin State Properties of Iron(II) and Cobalt(II) Bis-Terpyridyl Complexes," 55th Southeast Regional Meeting of the American Chemical Society, Atlanta, Georgia. Paper no. 984.
- 21. **November 15, 2002**: Partha S. Ray, <u>Daniel L. Parker</u>, Susan A. Hughes, and Daniel P. Parker, "An Unexpected Dimer Formation From a 4-(2-Amino-ethylamino)-5-formylpyrimidine Intermediate," 54th Southeast Regional Meeting of the American Chemical Society, Charleston, South Carolina. Paper no. 721.
- 20. **April 8, 2002**: <u>Daniel L. Parker</u>, Spencer J. Slattery, and Partha S. Ray, "Development of Synthetic Methods to Electron-Deficient 4'-Terpyridines," 223rd National American Chemical Society Meeting, Division of Chemical Education, Orlando, Florida. Paper no. 713.
- 19. **April 8, 2002**: <u>Daniel P. Parker</u>, Susan A. Hughes, Daniel L. Parker, and Partha S. Ray, "Studies Towards the Synthesis of a Pyrimidodiazepine-Based Folate as a Potential Inhibitor of Glycinamide Ribonucleotide Formyltransferase," 223rd National American Chemical Society Meeting, Division of Chemical Education, Orlando, Florida. Paper no. 680.
- 18. **September 23, 2001**: <u>D. L. Parker</u>, J. P. Lee, S. J. Slattery, and P. S. Ray, "Development of Synthetic Methods to Electron Deficient 4'-Terpyridines" 53^{rd} Southeast Regional Meeting of the American Chemical Society, Savannah, Georgia; Paper no. 664.
- 17. **October 19, 1999**: <u>B. Ayida</u> and P. S. Ray, "Studies Toards the Synthesis of Pyrimidodiazepine-Based Tetrahydrofolic Acid Derivatives as Potential Antitumor Agents". American Chemical Society Southeast Regional Meeting, Knoxville, Tennessee. Paper no. 137.
- 16. **August 23, 1999**: <u>B. Ayida</u> and P. S. Ray, "Studies Toards the Synthesis of Pyrimidodiazepine-Based Tetrahydrofolic Acid Derivatives as Potential Antitumor Agents". 218th National American Chemical Society Meeting, Division of Medicinal Chemistry, New Orleans, Louisiana. Paper no. 56.
- 15. **August 25, 1998**: M. L. Miller, M. W. Read, and P. S. Ray, "Synthesis and Antitumor Properties of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives". 216th American Chemical Society Meeting, Division of Medicinal Chemistry, Boston, Massachusetts. Paper no. 199.
- 14. **June 15, 1998**: M. L. Miller, M. W. Read, and P. S. Ray, "Synthesis and Antitumor Properties of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives". 26th National Medicinal Chemistry Symposia, Virginia Commonwealth University, Richmond, Virginia.
- 13. **October 2, 1997**: M. W. Read and P. S. Ray, "Progress Towards the Synthesis of Pyrimidoazepine- Based Tetrahydrofolic Acid Derivatives as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase: An

- Approach from Caprolactam," American Chemical Society Southwest Regional Meeting, Tulsa, Oklahoma. Paper no. 110.
- 12. **October 2, 1997**: M. L. Miller and P. S. Ray, "Synthesis of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase: A 1,3-Dipolar Cycloaddition Approach," American Chemical Society Southwest Regional Meeting, Tulsa, Oklahoma. Paper no. 109.
- 11. **October 2, 1997**: <u>K. L. Smith</u> and P. S. Ray, "Progress Towards the Synthesis of Pyridoacridine and Azaoxoaporphine Alkaloids via Inverse Electron Demand Diels-Alder Chemistry," American Chemical Society Southwest Regional Meeting, Tulsa, Oklahoma. Paper no. 107.
- 10. **June 24, 1997**: M. L. Miller and P. S. Ray, "Synthesis of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase: A 1,3-Dipolar Cycloaddition Approach," 35th National Organic Symposium, San Antonio, TX. Paper no. T201.
- 9. **June 21, 1997**: <u>K. L. Smith</u> and P. S. Ray, "Progress Towards the Synthesis of Pyridoacridine and Azaoxoaporphine Alkaloids via Inverse Electron Demand Diels-Alder Chemistry," 35th National Organic Symposium, San Antonio, TX. Paper no. S19.
- 8. **June 21, 1997**: M. W. Read and P. S. Ray, "Progress Towards the Synthesis of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase: An Approach from Caprolactam," 35th National Organic Symposium, San Antonio, TX. Paper no. S61.
- 7. **June, 1997**: N. A. Ayers, O. W. Nadeau, M. W. Read, P. S. Ray, and G. M. Carlson, "Chemical Crosslinking of Phosphorlyase-b Kinase by the Novel Crosslinker, 4-Phenyl-1,2,4-triazoline-3,5-dione," 17th International Congress of Biochemistry and Molecular Biology and 1997 Annual meeting of the American Society for Biochemistry and Molecular Biology.

Student Presentations at UWG (presenter(s) underlined)

- 23. **April 22, 2025**: Caden Innis and Partha Ray, Synthetic studies to a pyrimido-diazepine-based anti-folate as a potential anti-cancer drug, Scholars Day, Undergraduate Research Conference, UWG.
- 22. **April 23, 2024**: Melody Ahuaogu and Partha Ray, Synthetic studies to a pyrimido-diazepine-based anti-folate as a potential anti-cancer drug, Scholars Day, Undergraduate Research Conference, UWG.
- 21. **April 4, 2023**: <u>Christian McDowell, Abigail Wester</u> and Partha Ray, Synthetic studies to a pyrimido-diazepine-based anti-folate as a potential anti-cancer drug, Scholars Day, Undergraduate Research Conference, UWG.
- 20. **April 6, 2022**: Christian McDowell, Kenzie Stoup and Partha Ray, Synthetic studies to a pyrimido-diazepine-based anti-folate as a potential anti-cancer drug, Scholars Day, Undergraduate Research Conference, UWG.
- 19. **April 2, 2019**: <u>Dali Davis</u>, and Partha Ray, Synthetic studies to 2-(2-bromo-5-thiopheneethylamino)acetonitrile starting from thiophenecarboxaldehyde derivatives: a key intermediate for the synthesis of potential anti-cancer drugs, Scholars Day, Undergraduate Research Conference, UWG.
- 18. **April 2, 2019**: <u>Kimberly Marroquin</u>, <u>Austin Davis</u>, and Partha Ray, Synthetic studies to a pyrimidodiazepine-based anti-folate as a potential anti-cancer drug, Scholars Day, Undergraduate Research Conference, UWG.
- 17. **April 4, 2018**: Dali Davis, <u>Andrew Sennett</u>, and Partha Ray, Synthetic studies to pyrimidodiazepine-based non-classical anti-folates as potential anti-cancer agents: probing the para-aryl position, Scholars Day, Undergraduate Research Conference, UWG.
- 16. **April 4, 2017**: Mariam Agbe, Isaiah Rushin, and Partha Ray, Synthetic Studies Towards Potential Anticancer Drugs Via Inhibition of Folate Requiring Enzymes, Undergraduate Research Conference, UWG.

- 15. **April, 2016**: Robert Lovvorn, Austin Davis, Alexandria Webber, and Partha Ray, "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", Association for Research and Creative Humanities (ARCH).
- 14. **July 15, 2013**: Luisalberto Gonzalez, <u>Austin Gann</u>, and Partha Ray, "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", UWise Poster Presentation.
- 13. **April 5, 2007**: <u>Lanham, Jay</u>; Frick, Morin; Chinoy, Zoeisha; Ray, Partha S. "Progress towards the synthesis of pyrimidodiazepine-based folates as potential inhibitors of glycinamide ribonucleotide formyltransferase", Association for Research and Creative Humanities (ARCH).
- 12. **March 7, 2006**: <u>Danielle Shacklady</u>, and Partha S. Ray, "Progress Towards the Synthesis of Pyrimidodiazepine-based Folates as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase", The Sigma Xi Scientific Research Society, UWG Chapter, 2006 Science Student Research Presentations. Received 2nd place Research Day Award.
- 11. **July 28, 2005**: Danielle Shacklady, <u>Morin M. Frick, Elizabeth B. Denton</u>, and Partha S. Ray, "Progress Towards the Synthesis of Pyrimidodiazepine-based Folates as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase", NSF Sponsored REU Program at UWG.
- 10. **April 14, 2005**: <u>Holley Jeter</u>, Noah Huddleston, Jeffrey Gaulding, Jesse McAtee, and Partha Ray, "Synthesis of a Useful Pyrimidodiazepine Intermediate for the Preparation of Potential Anti-tumor Agents", Association for Research and Creative Humanities (ARCH).
- 9. **July 23, 2004**: Noah Huddleston, Jeffrey Gaulding, and Partha Ray, "Progress Toward the Synthesis of Folates as Potential Antitumor Agents, NSF Sponsored REU Program at UWG.
- 8. **April 2004**: Noah Huddleston, Jessica Harris, and Partha Ray, "Progress Toward the Synthesis of Folates as Potential Antitumor Agents", Association for Research and Creative Humanities (ARCH).
- 7. **July 25, 2003**: Noah Huddleston, <u>Jessica Harris</u>, <u>Hang Nguyen</u>, and Partha Ray, "Progress Toward the Synthesis of Folates as Potential Antitumor Agents", NSF Sponsored REU Program at UWG.
- 6. **April 2003**: Noah Huddleston, <u>Jessica Harris</u>, Hang Nguyen, and Partha Ray "Synthesis of a Useful Pyrimidodiazepine Intermediate for the Preparation of Potential Antitumor Agents", Association for Research and Creative Humanities (ARCH).
- 5. April 4, 2002: <u>Daniel L. Parker</u>, Spencer J. Slattery, and Partha S. Ray, "Development of Synthetic Methods to Electron-Deficient 4'-Terpyridines," Association for Research and Creative Humanities (ARCH).
- 4. **April 4, 2002**: <u>Daniel P. Parker</u>, Susan A. Hughes, and Partha S. Ray, "Studies Towards the Synthesis of a Pyrimidodiazepine-Based Folate as a Potential Antitumor Agent," Association for Research and Creative Humanities (ARCH).
- 3. March 14, 2002: <u>Daniel P. Parker</u>, Susan A. Hughes, and Partha S. Ray, "Studies Towards the Synthesis of a Pyrimidodiazepine-Based Folate as a Potential Antitumor Agent," Sigma Xi Research Society, UWG Chapter, Student Research Presenations.
- 2. **August 3, 2001**: <u>Daniel L. Parker</u>, Spencer J. Slattery, and Partha S. Ray, "Development of Synthetic Methods to Electron-Deficient 4'-Terpyridines," NSF Sponsored REU Program at UWG.
- 1. **August 3, 2001**: <u>John P. Lee</u>, Daniel L. Parker, and Partha S. Ray, "Studies Towards the Synthesis of a Pyrimidodiazepine-Based Folate as a Potential Antitumor Agent," NSF Sponsored REU Program at UWG.

Graduate Student Work Directed/Advised

Doctoral Students Directed:

Dr. Benjamin Ayida (Graduated December 2001). Thesis Title: Studies Towards the Synthesis of a Pyrimidodiazepine-Based Folate Derivative as a Potential Antitumor Agent. Currently Ph.D. Research Chemist at Anadys Pharmaceuticals, San Diego, CA.

Dr. Kenneth L. Smith (Graduated August 1999). Thesis Title: Studies Towards the Synthesis of Cytotoxic Marine Alkaloids and Pyrimidoazepine-Based Folates as Potential Antitumor Agents. Currently Ph.D. Research Chemist at ICN Pharmaceuticals, Costa Mesa, CA.

Dr. Mark W. Read (Graduated May 1998). Thesis Title: Synthesis of a Pyrimiodazepine-Based Folic Acid Derivative as a Potential Antitumor Agent. Currently Ph.D. Research Chemist, Cambridge Isotopes, Bostom, MA.

Dr. Michael L. Miller (Graduated August 1998). Thesis Title: Synthesis of Pyrimidoazepine-Based Folates and Progress Towards the Synthesis of Novel Taxoids as Potential Antitumor Agents. Currently Ph.D. Research Chemist at Immunogen Inc., Cambridge, MA.

Masters students Directed:

Mr. Stephen J. Howard (Graduated August 2000). Thesis Title: Synthetic Approaches Towards the Development of Novel Antifolates and Nucleosides. Currently MS Research Chemist at Endocyte Pharmaceuticals, West Lafayette, IN.

Mr. Wenlang Fu (Graduated August 2000). Thesis Title: Studies Towards the Synthesis of Pyrimidodiazepine-Based Folates as Potential Antitumor Agents. Currently MS Research Chemist at Bayer Pharmaceuticals, Bridgeport, CT.

Graduate Students Advised (served on thesis committees for students working under other faculty)

Dr. Xu Lin (Major Advisor: Dr. P.K. Bridson), "Synthesis of 3-Aminoxanthine Nucleosides as Potential Adenosine Receptor Ligands", August 1999 (Ph.D).

Dr. Akihiko Yoshikawa (Major Advisor: Dr. T. Cundari), "Methane Activation by Mercury Complexes", August 1998 (Ph.D.)

Ms. Yihua (Emily) Ye (Major Advisor: Dr. C. N. Robinson), "Synthesis and Structure-Activity Relationships of 9-cis-Retinoic Acid and its Derivatives", November 1996 (M.S.).

Mr. Xu Lin (Major Advisor: Dr. P. K. Bridson), "Synthesis of N-3 Unsubstituted 7-β-D-Ribofuranosylxanthines", August 1996 (M.S.).

Dr. Huan Huang (Major Advisor: Dr. P. K. Bridson), "Synthesis of Imidazodiazipnes as Guanine and Guanosine Analogs", August 1995 (Ph.D.).

Mr. Wang Xiaodong (Major Advisor: Dr. P. K. Bridson), "General Synthesis of New Xanthine Derivatives", August 1994 (MS).

Postdoctoral Students Supervised

Dr. Ki-Won Chung (December 98 – August 99)

Dr. Osama I. Abou El Fath (January 97 - June 97)

Dr. Rekha Iyengar (February 94 - June 95)

III. Service

College/University-Wide

- 1. Advisor for Pre-Pharmacy Students (August 01 present)
- 2. Member of the Advisory Committee for Enhancing Student Directed Research (April 01-May 01).
- 3. Member of the Faculty Senate (June 2004 May 2007)
- 4. Member of the General University Matters Committee (June 2004 May 2007), Chair (March 2005-May 2006)
- 5. Member of the Writing Across the Curriculum (WAC) Committee (August 2004 2006)
- 6. Member of the Parking Appeals Committee (August 2004 August 2005)
- 7. Advisor for Pre-health Sciences Learning Community (Fall 03 & Spring 04)
- 8. Tenure & Promotion Committee: A&S Fall 06 Fall 08; COSM Fall 11, Fall 2014, CMCS: Fall 2024 Fall 2025.
- 9. Faculty Advisory Committee (Fall 07 Spring 09)
- 10. College of Arts and Sciences Distinguished Scholar Lecture Series Committee (Fall 07 –Spring 08)
- 11. Gave a invited talk on the 2010 Nobel Prize for Chemistry as part of the Popular Lectures on 2010 Nobel Prizes organized by Dr. Farooq Khan (November 18, 2010).
- 12. Member of Disciplinary Appeals Committee, Chair (Fall 2015)
- 13. COSM Curriculum Committee (Fall 2017-Spring 2018)
- 14. UWG Core, Honors, and Interdisciplinary Professions (CHIP) Subcommittee to UPC: F 2018 S 2020)
- 15. CACSI: Faculty Advisory Committee (Fall 2020 Spring 2022)
- 16. CACSI: Diversity, Equity, and Inclusion Committee (Fall 2022 Spring 2024)

Departmental

- 1. Member of the Chemistry Department Curriculum Committee (August 00-08 & 2015 (Chair).
- 2. Invited and hosted the following Chemistry Seminar Speakers:

Feb 1, 2002: Dr. Frank McDonald (Emory University)

Feb 23, 2002: Dr. Lucian Strekowsky (Georgia State University)

- 3. Chair of search committees:
 - a) for a Visiting Assistant Professor during the summer of 2002, and 2006.
 - b) for tenure track Assistant Professor in Inorganic Chemistry (Fall 03 and Spring 04). Successful hire of Dr. Megumi Fujita.
 - c) for Lecturer position (Fall 05 and Spring 06, hired Dr. Anne Gaquere).
- 4. Recruitment of Chemistry students by attending visitation days (several), and informing potential students of our program by phone (10) and mail (39)

- 5. Helped to maintain the department NMR instrument including **weekly** liquid nitrogen fills which takes about 30 minutes each time (**2002 mid-March 2020 & June 2021 present**). Coordinated efforts between UWG purchasing department and Varian Instruments to ensure prompt delivery of our 400 MHz NMR instrument (October 2008 January 2009). Wrote the Sole Source Justification for the new instrument (October 2008).
- 6. Member of the following departmental search committees:

Search committee for Analytical chemist (Spring 2002, Chair: Dr. Leavitt, failed search)

Search committee for Analytical chemist (Spring 2007, hired Dr. Douglas Stuart, Chair: Dr. Hansen)

Search committee for Materials chemist (Spring 2015, hired Dr. McPhail, Chair: Dr. Fujita)

Search committee for Lecturer (2018, hired Ms. Holly Wallace, Chair: Dr. Hansen)

Search committee for a Limited Term Instructor (Summer to Fall 2025, hired Ms. Kelli Bain)

7. Member of the following Chemistry Program Tenure/Promotion committees:

Promotion to Professor for Dr. Leavitt (Chair: Dr. Khan)

Promotion to Professor for Dr. Khan, Fall 2010 (Chair: Dr. Hansen)

Promotion to Professor for Dr. Basu-Dutt, Fall 2010 (Chair: Dr. Geisler)

Tenure and Promotion to Associate Professor for Dr. Fujita, Fall 2010, Chair

T&P for Dr. Douglas Stuart, Fall 2013 (Chair: Dr. Dutt)

Promotion to Professor for Dr. Hansen, Fall 2014, Chair

Promotion to Associate Professor for Dr. Stuart, Fall 2014 (Chair: Dr. Dutt)

Promotion to Professor for Dr. Fujita, Fall 15 & Fall 2016 (Chair: Dr. Slattery)

Promotion to Senior Lecturer for Dr. Boatright, Fall 2016 (Chair: Dr. Khan)

Promotion to Professor for Dr. Gaquere, Fall 2017? (Chair: Dr. Khan)

T&P for Dr. McPhail; 2021

T&P for Dr. Logan Leslie; Fall 2023 (Chair: Dr. Khan)

8. Member of the following departmental Post-Tenure Review committees:

For Dr. Hansen (Fall 2005, 2021, Chair: Dr. Khan)

For Dr. Slattery (Fall 2007, 2013, 2021, Chair)

For Dr. Basu-Dutt (Fall 2007, Chair: Dr. Khan)

For Dr. Khan (Fall 2008, 2020, Chair: Dr. Hansen)

For Dr. Geisler (Fall 2011, Chair: Dr. Basu-Dutt)

9. Member of the following departmental 3rd Year Pre-Tenure Review committees:

For Dr. Fujita (Fall 2006, Chair: Dr. Khan)

For Dr. Stuart 2010, Chair: Dr. Khan)

For Dr. Leslie 2020

10. Member of the following departmental Chair Evaluation committees:

Annual Chair Evaluation for Dr. Slattery (March 2006, Chair; March 2007, Chair; March 2008, Chair; April 2009 Chair: Dr. Leavitt; April 2010, Chair; April 2011, Chair.

- 11. Member of committee for revision of departmental guidelines for tenure and promotion to associate professor; Fall 2015 (**Chair**).
- 12. Member of committee for revision of departmental guidelines for promotion to rank of professor; Fall 2015

13. Member of Committee to consider the addition of a BIS Health Science Degree (Fall 2022).

At the University of Memphis:

- 1. Organized the Poster Session and was Technical Sessions Chair for the 15th, 16th, 17th, and 18th Annual University of Memphis Undergraduate Chemistry Research Conferences (March 95, March 96 and March 97, February 98).
- 2. Member of the Chemistry Department's Undergraduate Studies Committee from Sept 93 to May 94. Helped to create guidelines for the Undergraduate Research in Chemistry Course.
- 3. Chairman of Chemistry Departmental Seminars from Sept 97 to April 99.
- Invited and hosted 50 speakers, including 33 from outside the University of Memphis.
- 4. Member of the Chemistry Department's Graduate Studies Committee from Sept 94 to May 99.
- Helped to revise changes to the rules and regulations for the 95-96 Graduate Bulletin for Chemistry.
- Helped to create Graduate Brochure for the Chemistry Department in 1995.
- Member of the search committee for an Inorganic Assistant Professor in Fall 1998.

IV. Academic Achievement

DEGREE	DISCIPLINE	INSTITUTION	YEAR
Ph.D. M.Sc.	Synthetic Organic Chemistry Physical Organic Chemistry	The University of East Anglia, UK The University of East Anglia	1982 1980
B.Sc.	Chemistry (with Honors)	The University of East Anglia	1978

V. Professional Growth/Development

A. Honors

П	Included in the 2004 - 2005 edition of Marquis Who's Who in Medicine and Healthcare.
	Nominated by a student to appear in Who's Who Among America's Teachers, 2002.
	Award for Creative Contributions, Agricultural Chemical Group, FMC Corporation, November 1990
	Obtained full scholarships from the Science Research Council (UK), for M.Sc., and Ph.D. degrees.
	Obtained full scholarship from the Barnet Council, London (UK), for B.Sc. degree.

B. Memberships in Professional Organizations

Member of the American Chemical Society since 1985. Member of the following divisions: Organic Chemistry, Medicinal Chemistry, Agrochemical, and Agriculture and Food Chemistry.

C. Professional Service

Presided over the "Target Directed Synthesis" session at the 55th Southeast Regional Meeting of the American Chemical Society, Atlanta, Georgia; November 18, 2003. Invited by Dr. Carmelo J. Rizzo (Vanderbilt University), the session organizer.

Grant Reviewer for National Science Foundation, and Petroleum Research Fund (American Chemical Society).

Journal Reviewer for Tetrahedron, Journal of the American Chemical Society, and Heterocyclic Communications.

Chosen to review a chapter of the textbook "Organic Chemistry, 2nd edition by Janice Smith, McGraw-Hill (2009).

Assessment of external candidate for promotion to Professor as an "external disciplinary expert" in the chemistry department at Georgia Southern University (September 2009)

July 2012: Synthesis of Perhydro-N-(2,2-disubstituted-3-aminopropyl) heterocycles as Potentially Bioactive Compounds and Fragments for Combinatorial Chemistry, *Heterocyclic Communications*.

January 2012: One-pot Three-component Synthesis of 2-(3,5-Diaryl-4,5-dihydropyrazol-1-yl)-1,3,4-thiadiazole, *Heterocyclic Communications*.

March 2017: Efficient Sonochemical Synthesis of New Bis-Spiropyrazoles as Antitumor Agents, Naglaa, A. et. al., *Medicinal Chemistry*.

<u>Publications & Patents</u> (*indicates undergraduate student)

- 38. Austin W. Gann*, and Partha S. Ray, "Synthesis of 2-Amino-6,7,8,9-tetrahydro-6-phenethyl-3*H*-pyrimido[4,5-*e*][1,4]diazepin-4(5H)-one: A Model for a Potential Pyrimido[4,5-*e*][1,4]diazipine-Based Folate Anti-tumor Agent", *Heterocyclic Communications*, **2015**, *21*, 349-353.
- 37. Morin Frick*, Danielle McAtee*, Jesse McAtee*, Christina Wysoczynski*, and Partha S. Ray, "Synthesis of N¹-Alkyl 1,4-Diazepinones via Schmidt Ring Expansion Chemistry," *Heterocyclic Communications*, **2011**, *17*, 17-19.
- 36. J. Chambers*, B. Eaves*, D. Parker*, R. Claxton*, P.S. Ray, and S.J. Slattery, "Inductive Influence of 4'-Terpyridyl Substituents on Redox and Spin State Properties of Iron(II) and Cobalt(II) Bis-Terpyridyl Complexes," *Inorganica Chimica Acta*, **2006**, *359*, 2400-2406.
- 35. N.E. Huddleston*, J.L. Harris*, H.L. Nguyen*, and P.S. Ray, "Synthesis of a 2-Amino-4-chloro-6,9-bis-(2,4-dimethoxybenzyl)-6,7,8,9-tetrahydro-5*H*-pyrimido[4,5-*e*][1,4]diazepine: A Potentially Useful Intermediate to Pyrimido[4,5-*e*][1,4]diazepine-Based Folates," *Heterocyclic Communications*, **2004**, *10*, 405-406.

- 34. D. P. Parker*, S. A. Hughes*, D. L. Parker*, and P. S. Ray, "An Unexpected Dimer Formation From a 4-(2-Amino-ethylamino)-5-formylpyrimidine Intermediate," *Heterocyclic Communications*, **2002**, 8, 419-422.
- 33. D. L. Parker*, D. P. Parker*, A. L. Kimball*, B. K. Ayida, and P. S. Ray, "Progress Towards the Synthesis of Pyrimidodiazepine-Based Folates as Potential Inhibitors of Glycinamide Ribionucleotide Formyltransferase" in "Chemistry and Biology of Pteridines and Folates", Eds. S. Milstien, G. Kapatos, R. A. Levine, and B. Shane, Kluwer Academic Publishers, Boston, p 427-431, **2002**.
- 32. M. W. Read, M. L. Miller, and P. S. Ray, "Synthesis of N-{[4-(2-Amino-4(3H)-oxo-5,6,7,8,-tetrahydropyrimido-[4,5-*b*]azepin-6-yl)methyl]benzoyl}-L-glutamic Acid and two of its Conformationally- Restricted Analogs," *Tetrahedron*, **1999**, *55*, 373-392.
- 31. N. A. Ayers, O. W. Nadeau, M. W. Read, P. S. Ray, and G. M. Carlson, "Effector-Sensitive Crosslinking of Phosphorylase-b Kinase by the Novel Crosslinker, 4-Phenyl-1,2,4-triazoline-3,5-dione," *Biochemical Journal*, **1998**, *331*, 137-141.
- 30. R. N. Henrie II, C. J. Peake, T. G. Cullen, M. K. Chaguturu, P. S. Ray, B. D. Bennett," 2,4-Diamino-5,6-disubstituted- and 5,6,7-Trisubstituted 5-Deazapteridines as Insecticides," United States Patent: 5,710,157; January 20, **1998**.
- 29. S. D. Selvidge III*, J. Jang*, and P. S. Ray, "Synthesis of 5-Formyluridines," *Nucleosides and Nucleotides*, **1997**, *16*, 2019-2024.
- 28. M. L. Miller and P. S. Ray, "A Convenient Synthesis of 2,2,4-Trimethylcyclohexane-1,3-dione: A Useful Presursor for the Taxoid A Ring," *Synthetic Communications*, **1997**, 27, 3991-3996.
- 27. M. L. Miller and P. S. Ray, "Synthesis of 4-[8-Amino-6-benzyl-10(9H)-oxo-4,5-dihydro-(6H)-isoxazolo[3,4-*d*]pyrimido[4,5-*b*]azepin-3-yl]benzoyl-L-glutamic Acid. A Novel Pyrimidoazepine-Based Folic Acid Derivative," *Heterocycles*, **1997**, *45*, 501-506.
- 26. K. L. Smith and P. S. Ray, "Synthesis of 2,4-Dimethylthiobenzo[c][2,7]naphthyridin-5(6H)-one: A Potentially Useful Intermediate for the Synthesis of Pyridoacridine Alkaloids," *Heterocycles*, **1997**, *45*, 11-14.
- 25. R. N. Henrie II, C. J. Peake, T. G. Cullen, M. K. Chaguturu, P. S. Ray, B. D. Bennett, "Insecticidal 5-Substituted-2,4-diaminopyrimidine Derivatives," United States Patent: 5,627189; May 6, **1997**.
- 24. R. N. Henrie II, C. J. Peake, T. G. Cullen, M. K. Chaguturu, P. S. Ray, B. D. Bennett,"2,4-Diamino-5,6-disubstituted- and 5,6,7-Trisubstituted 5-Deazapteridines as Insecticides," United States Patent: 5,593,998; January 14, 1997.
- 23. M. L. Miller and P. S. Ray, "Synthesis of 5-Amino-9-benzyl-6-formyl-4-methoxy-2-pivaloylamino-7,8-dihydropyrimido[4,5-*b*]azepine. A Potentially Useful Intermediate Towards the Synthesis of Pyrimidoazepine Based Folic Acid Derivatives," *J. Heterocyclic Chem.*, **1996**, *33*, 259-263.
- 22. M. L. Miller and P. S. Ray, "An Intramolecular 1,3-Dipolar Cycloaddition Approach to a Pyrimidoazepinone Derivative. A Potentially Useful Intermediate Towards the Synthesis of Pyrimidoazepine Based Folic Acid Derivatives," *Tetrahedron*, **1996**, *52*, 5739-5744.

- 21. R. N. Henrie II, C. J. Peake, T. G. Cullen, M. K. Chaguturu, P. S. Ray, B. D. Bennett, "Insecticidal 5-Substituted-2,4-diaminopyrimidine Derivatives," United States Patent: 5,587,379; December 24, 1996.
- 20. R. N. Henrie II, C. J. Peake, T. G. Cullen, M. K. Chaguturu, P. S. Ray, B. D. Bennett, "2,4-Diamino-5,6-disubstituted- and 5,6,7-Trisubstituted 5-Deazapteridines as Insecticides," United States Patent: 5,547,954; August 20, 1996.
- 19. R. N. Henrie II, C. J. Peake, T. G. Cullen, M. K. Chaguturu, P. S. Ray, B. D. Bennett,"2,4-Diamino-5,6-disubstituted- and 5,6,7-Trisubstituted 5-Deazapteridines as Insecticides," United States Patent: 5,532,370; July 2, 1996.
- 18. R. N. Henrie II, C. J. Peake, T. G. Cullen, M. K. Chaguturu, P. S. Ray, B. D. Bennett, "Insecticidal 5-Substituted-2,4-diaminopyrimidine Derivatives," United States Patent: 5,521,192; May 28, **1996**.
- 17. M. W. Read and P. S. Ray, "Synthesis of a 1,8-Naphthyridin-5-one Derivative via an Intramolecular 1,3-Dipolar Cycloaddition Reaction," *J. Heterocyclic Chem.*, **1995**, *32*, 1595-1597.
- 16. P. S. Ray and M. J. Manning, "A New Synthesis of 2-Acylaminoisoquinolin-1(2H)-ones From 2-Vinylbenzoic Acid," *Heterocycles*, **1994**,*38*, 1361-1365.
- 15. R. N. Henrie II, C. J. Peake, T. G. Cullen, M. K. Chaguturu, P. S. Ray, B. D. Bennett, "Insecticidal 5-Substituted-2,4-diaminopyrimidine Derivatives," International Publication No: WO 94/12032; 9 June 1994.
- 14. R. N. Henrie II, C. J. Peake, T. G. Cullen, M. K. Chaguturu, P. S. Ray, B. D. Bennett, "Insecticidal Substituted-2,4-diaminoquinazolines," International Publication No: WO 94/18980; 1 September 1994.
- 13. P. S. Ray, J. Buote, C. A. Webster and M. J. Manning, "Synthesis of 7,8,9,10-Tetrahydropyridazino[1,2-a][1,2,4]benzotriazin-6-one Derivatives. A Novel Heterocyclic System," *J. Heterocyclic Chem.*, **1993**, *30*, 45-48.
- 12. G. A. Meier, I. R. Silverman, P. S. Ray, T. G. Cullen, S. F. Ali, F. L. Marek and C. A. Webster, "Insecticidal Dihydropyrazoles with Reduced Lipophilicity," ACS Symposium Series No. 504, Synthesis and Chemistry of Agrochemicals III, Ed. Baker et. al., American Chemical Society, **1992**, Chapter 28, 313-326.
- 11. E. C. Taylor and P. S. Ray, "An Intramolecular 1,3-Dipolar Cycloaddition Approach to 5,6,7,8-Tetrahydro-(4-ethoxy-6-hydroxymethyl-2-pivaloylamino)- 5-deazapteridin -5(8H)-one, A Potentially Useful Intermediate to 5-Deaza and 5,10-Dideaza-5,6,7,8-tetrahydrofolic Acid Analogs," *Heterocycles*, **1991**, *32*, 1327-1340.
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- 4. E. C. Taylor and P. S. Ray, "A Convenient Synthesis of 6-Formylpterin," *Syn. Comm.*, **1987**, *17*, 1865-1868.
- 3. E. C. Taylor and P. S. Ray,"A New and Unequivocal Route to C-6 Carbon-Substituted Pterins and Pteridines," *J. Org. Chem.*, **1987**, *52*, 3997-4000.
- 2. R. C. Cookson and P. S. Ray, "A New Synthesis of Macrocyclic Keto-Lactones via Ring Expansion of 2-(3-Hydroxypropyl)-2-nitrocycloalkanones," *Tetrahedron Lett.*, **1982**, *23*, 3521-3524.
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Research Presentations at National and Regional Chemistry Meetings & Universities

- 34. **November 9, 2018**: P.S. Ray, "Lego and Synthesis: The Art and Science of Molecular Construction Applied to Building Novel Anti-folates as Potential Anti-cancer Drugs". Biology Department Seminar, UWG.
- 33. October 12, 2018: P.S. Ray, "Lego & Synthesis: Studies Towards the Construction of Anti-folates as Potential Anti-cancer Drugs". Department of Chemistry & Biochemistry Seminar, University of North Georgia, Dahlonega, GA
- 32. **February 6, 2015**: P.S. Ray, "Dreams, Schemes, and Butterfly Wings; My Journey Towards Ithaca'. College of Science & Mathematics, Dean's Research Seminar Series, University of West Georgia, Carrollton, Georgia.
- 31. **November 11, 2004**: P.S. Ray, "Progress Towards the Synthesis of Pyrimidodiazepine-Based Folates as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase". 56th Southeast Regional Meeting of the American Chemical Society, Durham, North Carolina; Paper no. 198.
- 30. **November 18, 2003**: P. S. Ray, "Progress Towards the Synthesis of Pyrimidodiazepine-Based Folates as Potential Antitumor Agents". 55th Southeast Regional Meeting of the American Chemical Society, Atlanta, Georgia; Paper no. 625.
- 29. **November 14, 2002**: P.S. Ray, "Progress Towards the Synthesis of Pyrimidodiazepine-Based Folates as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase". 54th Southeast Regional Meeting of the American Chemical Society, Charleston, South Carolina. Paper no.185.

- 28. **November 8, 2002**: Georgia State University, Department of Chemistry, Atlanta, Georgia. Title: Synthesis of Pyrimidoazepine and Diazepine-Based Folates as Potential Antitumor Agents.
- 27. **September 23, 2001**: D. L. Parker, D. P. Parker, A. L. Kimball, B. K. Ayida, and P. S. Ray, "Progress Towards the Synthesis of Pyrimidodiazepine-Based Folates as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase". 53rd Southeast Regional Meeting of the American Chemical Society, Savannah, Georgia; Paper no. 370.
- 26. **June 18, 2001**: D. L. Parker, D. P. Parker, A. L. Kimball, B. K. Ayida, and P. S. Ray, "Progress Towards the Synthesis of Pyrimidodiazepine-Based Folates as Potential Inhibitors of Glycinamide Ribonucleotide Formyltransferase" 12th International Symposium on the Chemistry and Biology of Pteridines and Folates, National Institutes of Health, Bethesda, Maryland.
- 25. **February 2000**: Ohio Northern University, Ada, Ohio. Department of Chemistry. Title: Synthesis and Antitumor Properties of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives
- 24. **January 2000**: Bates College, Department of Chemistry, Lewiston, Maine. Title: Synthesis and Antitumor Properties of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives
- 23. **January 2000**: Florida Institute of Technology, Department of Chemistry, Melbourne, Florida. Title: Synthesis and Antitumor Properties of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives
- 22. **January 2000**: University of West Georgia, Department of Chemistry, Carrollton, Georgia. Title: Synthesis and Antitumor Properties of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives
- 21. **December 1999**: Denison University, Department of Chemistry, Granville, Ohio. Title: Synthesis and Antitumor Properties of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives
- 20. **December 1999**: New Mexico Institute of Mining and Technology, Department of Chemistry, Socorro, New Mexico. Title: Synthesis and Antitumor Properties of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives
- 19. **September 13, 1999**: Tulane University, Department of Chemistry, New Orleans, Louisiana. Title: Synthesis and Antitumor Properties of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives.
- 18. **November 19, 1998**: Auburn University, Department of Chemistry, Auburn, Alabama. Title: Synthesis and Antitumor Properties of Pyrimidoazepine-BasedTetrahydrofolic Acid Derivatives.
- 17. **October 26, 1998**: Lyon College, Chemistry Department, Batesville, Arkansas. Title: The Role of Organic Chemistry in Drug Discovery: A Personal Perspective.
- 16. **September 14, 1998**: University of Missouri, Department of Chemistry, St. Louis, Missouri. Title: Synthesis of Pyrimidoazepine-Based Folic Acid Derivatives as Potential Antitumor Agents.
- 15. **July 1, 1998**: Gordon Research Conference on Heterocyclic Compounds, Salve Regina University, Newport, Rhode Island. Title: Synthesis and Antitumor Properties of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives.
- 14. **May 8, 1998**: Louisiana State University, Department of Chemistry, Baton Rough, Louisiana. Title: Synthesis of Pyrimidoazepine-Based Folic Acid Derivatives as Potential Antitumor Agents.
- 13. **January 28, 1998**: Austin Peay State University, Science Department, Clarksville, Tennessee. Title: The Role of Organic Chemistry in Drug Discovery: A Personal Perspective.
- 12. **January 12, 1998**: American Cyanamid Company, Agricultural Research Division, Princeton, New Jersy. Title: Synthesis of Pyrimidoazepine-Based Folic Acid Derivatives as Potential Antitumor Agents.
- 11. **October 30, 1997**: The University of Arkansas at Pine Bluff, Research Center. Title: Synthesis of Pyrimidoazepine-Based Folic Acid Derivatives as Potential Antitumor Agents.
- September 11, 1997: J. W. Buser, M. K. Chaguturu, P. A. Cruickshank, T. G. Cullen, R. V. Dargar, J. A. Dybas, J. J. Fiordeliso, R. N. Henrie II, F. L. Marek, A. C. Lew, A. C. Oliphant, G. T. Payne, C. J. Peake, E. L. Plummer, M. J. Plummer, P. S. Ray, D. A. Shook, M. A. Walsh, J. M. Wierenga, 5-Substituted 2,4-Diaminopyrimidines as Insecticides," American Chemical Society, Division of Agrochemicals, 214th National Meeting, Las Vegas, NV. Paper no. 143.

- 9. **May 19, 1997**: American Association of Pharmaceutical Scientists 1997 Midwest Regional Meeting, Rosemont Conference Center, Chicago, IL. Title: Synthesis of Pyrimidoazepine-Based Folic Acid Derivatives as Potential Antitumor Agents.
- 8. **April 16, 1997**: M. W. Read, M. L. Miller and P. S. Ray, "Synthesis and Antitumor Properties of Pyrimidoazepine-Based Tetrahydrofolic Acid Derivatives," 213th American Chemical Society National
- 7. **March 31, 1997**: Murray State University, Department of Chemistry, Murray, Kentucky. Title: Synthesis of Pyrimidoazepine-Based Folic Acid Derivatives as Potential Antitumor Agents.
- 6. **March 18, 1997**: University of Mississippi, School of Pharmacy, Oxford. Title: Synthesis of Pyrimidoazepine-Based Folic Acid Derivatives as Potential Antitumor Agents. Meeting, San Francisco, Calif., Division of Medicinal Chemistry, Paper no. 298.
- 5. **December 30, 1995**: M. L. Miller, M. W. Read, and P. S. Ray, "Progress toward the Synthesis of Pyrimidoazepine Based Folic Acid Derviatives as Potential Antitumor Agents," 47th Southeast/51st Southwest Joint Regional Meeting of American Chemical Society, The Peabody Hotel, Memphis, TN. Paper no. 456.
- 4. **November 3, 1995**: M. L. Miller, M. W. Read, and P. S. Ray, "Progress toward the Synthesis of Pyrimidoazepine Based Folic Acid Derviatives as Potential Antitumor Agents," 30th American Chemical Society Midwest Regional Meeting, Holiday Inn, Joplin, MO. Paper no. 123.
- 3. **June 13, 1995**: M. L. Miller and P. S. Ray, "An Intramolecular 1,3-Dipolar Cycloaddition Route to a Pyrimidoazepinone Derivative. A Potentially Useful Intermediate Towards the Synthesis of Pyrimidoazepine Based Folic Acid Derivatives," 34th National Organic Symposium, The College of William and Mary, Williamsburg, VA. Paper no. 221.
- 2. **January 1993**: Memphis State University, Department of Chemistry, Memphis, Tennessee. Title: A Inverse Electron Demand Diels-Alder Approach to Pyridoacridine Alkaloids
- 1. **January 1993**: Florida International University, Department of Chemistry, Miami, Florida. Title: A Inverse Electron Demand Diels-Alder Approach to Pyridoacridine Alkaloids

F. Research Support

External Funding

	AGENCY	AMOUNT	PERIOD
7.	USG Affordable Learning Textbook Transformation Grant With Drs. Fujita (PI), and Geisler. Project Title: Adopting a no-cost textbook for Organic Chemistry I and II and creating no-cost online homework at UWG	\$10,800	June 01, 2020 - July 31, 2021
6.	National Science Foundation – Major Research Instrumentation Acquisition of a 400 MHz NMR Spectrometer to Enhance Undergraduate Chemical Research. With Drs. Fujita (PI), Slattery, and Geisler.	\$344,000	2008-2011

- 5. National Science Foundation (# 0243921).
 REU Site: Research Experiences for Two-Year College Undergraduates in \$217,838 Apr 03-Mar 06 Chemistry. With Drs. Geisler, Slattery, Basu-Dutt, Hansen, Khan, Leavitt, and Gigi B. Ray (PI).
- 4. National Cancer Institute, National Institutes of Health. \$106,500 May 02-Apr 05

Proposal Title: Synthesis of Potential Antitumor Agents. PI

3. National Cancer Institute, National Institutes of Health. \$95,590 Sept 98-Aug 00 Proposal Title: Pyrimidoazepine-Based Folates as Potential Antitumor Agents. PI

- 2. The Elsa U. Pardee Foundation. Proposal Title: The Design and Synthesis \$66,046 Jan 97-Dec 98 of Novel Inhibitors of Glycinamide Ribonucleotide Formyltransferase: Potentially Selective Antitumor Agents. **PI**
- 1. Bristol-Myers-Squibb; administered by American Chemical Society; \$20,000 Sept 97-Aug 98 1997 Division of Medicinal Chemistry Predoctoral Fellowship Award (1 of 5) to my graduate student Mr. Michael Miller for proposal titled: Synthesis of Pyrimidoazepine-Based Folic Acid Derivatives as Potential Antitumor Agents.

External Grants Under Review: None

Unfunded External Proposals Submitted:

NSF-REU: Summer Program for Excellence in Chemistry Teaching and Research by Undergraduate Mentoring (SPECTRUM) for Two-Year College Students: Nano, Biomed, and Green Chemistry. With Drs. Stuart (PI), Khan (co-PI), Geisler, Fujita, Basu-Dutt, Slattery. Gaquere, and Hansen, Submitted August 25, 2011 for \$266,368.

National Science Foundation – Major Research Instrumentation, *Acquisition of a 400 MHz NMR Spectrometer to Enhance Undergraduate Chemical Research*, **PI**, with Drs. Fujita, Slattery, and Geisler. Requested: \$386,500. Submitted Jan 25, 2007.

National Science Foundation – Major Research Instrumentation, *Acquisition of a 300 MHz NMR Spectrometer to Enhance Undergraduate Chemical Research*, **PI**, with Drs. Fujita, Slattery, Geisler, and Leavitt. Requested: \$393,000. Submitted Jan 26, 2006.

National Science Foundation – Major Research Instrumentation, *Acquisition of a 300 MHz NMR Spectrometer to Enhance Undergraduate Chemical Research*, **co-PI**, with Drs. Gigi Ray (PI), Slattery, Geisler, and Leavitt. Requested: \$321,850. Submitted Jan 27, 2005.

Internal Funding (from UWG)

SOURCE	AMOUNT	PERIOD
40. SRAP: Studies Towards the Synthesis of a Potential Anti-cancer Drug	\$1720Aug	22 May 23
39. COSM-FRG: Synthetic Studies Towards a Potential Anti-cancer Drug	\$2000	July 19-April 20
38. SRAP: Studies Towards the Synthesis of a Potential Antitumor Drug	\$1570	July 19-May 20

37.	SRAP: Studies Towards the Synthesis of a Potential Antitumor Drug	\$1450 \$1500	July 18-May 19
36.	COSM-FRG: Synthetic Studies Towards a Potential Anti-cancer Drug	\$1500	July 18-May 19
35.	COSM-FRG: Studies Towards the Synthesis of Potential Antitumor Agents		July17-April18
34.	SRAP: Studies Towards the Synthesis of Potential Antitumor Agents	\$1650	July17-May18
33.	COSM-FRG: As 32	\$1300	Aug 16-May17
32.	VP-FRG: Studies Towards the Synthesis of a Potential Antitumor Agent	\$2000	Aug 16-May17
31.	SRAP: Studies Towards the Synthesis of a Potential Antitumor Agent	\$1475	Aug 16-May17
30.	FRG: Studies Towards the Synthesis of a Potential Antitumor Agent	\$1250	Aug 15-May 16
29.	UWise: Undergraduate Research Program (2 Students)	\$5000	Sept 15-May 16
28.	SRAP: Studies Towards the Synthesis of a Potential Antitumor Agent	\$1500	Aug 15-May 16
27.	FRG: Studies Towards the Synthesis of a Potential Antitumor Agent	\$1250	July 14-May15
26.	UWise Undergraduate Research Program (2 Students)	\$5000	Sept 14- May 15
25.	SRAP: Studies Towards the Synthesis of a Potential Antitumor Agent	\$1800	July 14-May 15
24.	FRG: Studies Towards the Synthesis of a Potential Antitumor Agent	\$1250	July 13-May14
23.	SRAP: Studies Towards the Synthesis of a Potential Antitumor Agent	\$2000	July13-May 14
22.	UWise Student Research Program (2 Students)	\$4800	Jan 13-May 13
21.	FRG: Studies Towards the Synthesis of a Potential Antitumor Agent	\$1500	July 12-May 13
20.	FRG: Studies Towards the Synthesis of Potential Antitumor Agents	\$1500	July 10-May 11
19.	SRAP: Studies Towards the Synthesis of Potential Antitumor Agents	\$2250	July 10-May 11
18.	SRAP: Studies Towards the Synthesis of Potential Antitumor Agents	\$2250	July 09-May 10
17.	SOFREA; Synthesis of N-Alkyl Purines as Models for N-Alkyl Purine-	\$2,800	July 09-May 10
	Based Folates as Potential Antitumor Agents		
16.	FRG; Title: Studies Towards the Synthesis of Potential Antitumor Agents	\$1,500	July 08-May 09
15.	SRAP; Title: Studies Towards the Synthesis of Potential Antitumor Agents	\$2,100	July 08-May 09
14.	FRG; Title: Studies Towards the Synthesis of Potential Antitumor Agents	\$1,500	July 07-May 08
13.	SRAP; Title: Studies Towards the Synthesis of Potential Antitumor Agents	\$2,100	July 07-May 08
12.	SRAP; Title: Studies Towards the Synthesis of Potential Antitumor Agents	\$2,100	July 06-May 07
11.	FRG; Title: Studies Towards the Synthesis of Potential Antitumor Agents	\$1,500	July 06-May 07
10.	FRG; Title: Studies Towards the Synthesis of a Potential Antitumor Agent	\$1,500	July 05-May 06
9.	SRAP; Title: Studies Towards the Synthesis of Potential Antitumor Agents	\$1,950	July 05-May 06
8.	SRAP; Title: Studies Towards the Synthesis of Potential Antitumor Agents	\$1,800	July 04-June 05
7.	SRAP; Title: Studies Towards the Synthesis of Potential Antitumor Agents	\$1,800	July 03-June 04
6.	FRG; Title: Development of Synthetic Methods to 4'-Nitro and		\$750 July
02-J	une 03		•
	4'-Trifluoromethyl Terpyridines		
5.	SRAP; Title: Studies Towards the Synthesis of a Potential Antitumor Agen	t\$1,800	July 02-May 03
4.	•	\$2,500	July 01-June 02
3.	FRG; Title: Development of Synthetic Methods to Electron	\$1,500	July 01-June 02
	Deficient 4'-Terpyridines	,	J
2.	SRAP; Title: Synthesis of a Potential Anti-tumor Agent	\$1,800	Aug 01-May 02
1.	SOFREA; Title: Synthesis of a Potential Anti-cancer Agent.	\$3,000	Aug 00-Jun 01
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