

CURRICULUM VITAE**Dr. Mautusi Mitra** (Associate Professor Department of Biology, University of West Georgia)**WORK ADDRESS AND CONTACT INFORMATION:-**

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Mitra Lab website: <http://www.westga.edu/mitralab/>Facebook Mitra lab link: <https://www.facebook.com/pages/UWG-Mitra-Lab/1618923318377133>**EDUCATION****Ph.D. in Plant Biology, 2003.** Louisiana State University (Baton Rouge), Department of Biological Science. Dissertation Title: Carbonic anhydrase and carbonic anhydrase like genes of *Chlamydomonas reinhardtii* (2003). Ph.D. supervisor: Dr. James V. Moroney**M.S in Botany, 1991.** University of Calcutta (India), Department of Botany: Special focus: Phycology (1991).**B.S with Honors in Botany, 1989.** University of Calcutta (India) [Presidency College, Calcutta], Department of Botany (1989) {minors}:- Human Physiology and Geology.**PROFESSIONAL APPOINTMENTS**

University of West Georgia:

August 2015 - Present

Tenured, Associate Professor

August 2009 – July 2015

Assistant Professor

University of California, Berkeley:

November 2008 – July 2009

Associate specialist

March 2004 – November 2008

Postdoctoral research scholar

University of California, Berkeley Extension

Spring, 2008

Instructor in Medical Microbiology

Louisiana State University, Baton Rouge:

1997 – 2003

Graduate Student, Department of Biological Science

1997 – 2003

Graduate Teaching Assistant

August, 2003 – December, 2003

Graduate Research Assistant

TEACHING EXPERIENCES**University of West Georgia, Assistant Professor, Department of Biology, Carrollton, GA:**

Courses taught: BIOL 3134 (Cell and Molecular Biology)
 BIOL 1110 (Biological Diversity),
 BIOL 2107 (Principles of Biology I for Biology majors)
 BIOL 6984 (Graduate Biology seminar for MS Students)
 BIOL 4503/6503 (Biological Perspectives: Biochemistry)
 BIOL 4984 (Senior Seminar for Biology majors)

Instructor, University of California, Berkeley, Extension (as a postdoc):

Spring, 2008: Served as an instructor for the course: Introduction to Medical Microbiology (EDP# 413260; three semester units in Public Health) at UC Berkeley, Extension.

Guest Lecturer, University of California, Berkeley, Department of Plant and Microbial Biology (as a post-doc):

Spring, 2008 and Spring, 2009: Served as a guest instructor in the lecture class for the course: Plant Biochemistry of Biofuels: Concepts and Foundations (PLANTBIO222) in the Department of Plant and Microbial Biology at UC Berkeley.

Fall, 2006: Served as a guest instructor in the lecture class for the course: Plant Biochemistry (200B 001LEC) in the Department of Plant and Microbial Biology at UC Berkeley.

Teaching Assistant, Louisiana State University, Department of Biological Science:

2003-2003: Research Assistantship; Training of graduate and undergraduate students for research

1997-2003: Laboratory Teaching Assistantship, Introductory Biology for science majors (BIOL 1208; <http://www.biology.lsu.edu/introbio/>; seven semesters)

Microorganisms and Man Laboratory (Microbiology for non-majors (BIOL1012, <http://www.biology.lsu.edu/undergrads/bicourse.html>; one semester)

General Microbiology (Microbiology for Microbiology majors) (BIOL 2051; <http://www.biology.lsu.edu/undergrads/bicourse.html>; three semesters)

Introductory Plant Physiology (BIOL/PLHL3060)

<http://www.biology.lsu.edu/webfac/dlongstreth/plphys/>; one semester)

AWARDS/SCHOLARSHIPS (most recent at the top)

1. American Society of Plant Biologists Summer Undergraduate Research Fellowship (ASPB-SURF) in April 2017.
2. Awarded "The Above and Beyond Award" in 2016 by the UWG Risk Management Environmental Health and Safety.
3. Awarded College of Science & Mathematics Excellence in Teaching Award for outstanding contributions to student success, April, 2014.
4. Awarded Excellence in Research award by the UWG College of Science and Mathematics, in April, 2013.
5. Awarded Research Scholarship (Visiting Professor) by my research collaborator Dr. Bernhard Grimm [Humboldt University (Berlin, Germany)] to conduct research at his lab in Berlin in summer from May till July, 2012. This fund has been awarded from a travel grant titled "Retrograde Signaling in Plant" from the Research Unit FOR 80 [funded by the German Research Foundation (DFG)] (2500 euros).
6. Awarded the American Society of Plant Biologists (ASPB) Women's Young Investigator Travel Award to attend the National ASPB conference in 2012. This award is given

competitively to seven women Assistant Professors in their early career specializing in Plant Biology to present their research findings at the national meeting. February, 2012 (\$1000).

OTHER AWARDS (most recent at the top)

1. Travel Award from the Gordon Research Conference organizers to attend the Gordon Research Conference, Photosynthesis. July, 2006.
2. Travel Award by the Graduate School and the Department of Biological Sciences of the Louisiana State University to attend the Annual Meeting of American Society of Plant Biologists. July, 2003.
3. Research award by the Biology Graduate Student Association at Louisiana State University. April 2003.
4. Travel Award by the Biology Graduate Student Association at Louisiana State University to attend the Annual Meeting of American Society of Plant Biologists. July, 2003.
5. Travel Award by the Graduate School of the Louisiana State University to attend the Annual Meeting of the Southern Section of the American Society of Plant Biologists. March, 2003.
6. Travel Award by the Department of Biological Sciences, Louisiana State University to attend the Annual Meeting of the Southern Section of the American society of Plant Physiologists. March, 2003.
7. Junior Research Fellowship Award in Life Science by the Council of Scientific and Industrial Research, New Delhi (India) in 1995.

RESEARCH PATENT

1. Invention title:- “Suppression of *TLAI* gene expression for improved solar conversion efficiency and photosynthetic productivity in plants and algae”; found in U.S patent application serial no. 11/423,620 (invention case number 2006-132) filed on June 12, 2006 and issued on June, 29th, 2010; Extension filed in 2014. Inventors:- **Mautusi Mitra** and Anastasios Melis (UC Berkeley). **This patent has been purchased commercially by biotech companies in California.**

INTERNAL GRANTS (most recent at the top)

1. Awarded LSAMP research fund to hire minority undergraduate research students in fall 2017; \$6000.
2. Awarded COSM-FRG grant (\$1500) in May 2017 for research support.
3. SEEP Research Award to hire undergraduate research students and to purchase lab supplies September 2016, \$2700.
4. LSAMP research fund to hire minority undergraduate research students in fall 2016; \$4000.
5. Awarded COSM-FRG grant (\$1400) in July 2016 for research support.
6. Awarded Student Research Assistance grant by UWG Student Research Assistant program for the project “Identification and Molecular Characterization of Three High Light Sensitive *Chlamydomonas reinhardtii* (a green micro-alga) Mutants Defective in Photosynthesis, May,

- 2016; \$1475.
7. Awarded \$3314 FY2017 UWG FRG grant.
 8. Awarded \$536.80 from the Biology Department 2016 year end in March 2016 fund to purchase lab supplies
 9. Awarded \$215 by the Biology Department for research in March, 2016.
 10. Awarded \$306 dollars by the LSAMP program for research in March 2016.
 11. Awarded \$ 524 from the Academic Affairs fund for research in 2015.
 12. Awarded COSM-FRG grant (\$1100) in fall 2015 for research support.
 13. Awarded GA-AL- LSAMP fund (\$6000) to hire minority undergraduate research students
 14. Awarded Uwise Grant (\$5000) fall 2015 to pay for research student salaries and lab supplies.
 15. Awarded FRG from the ORSP, UWG, May 2015, \$500
 16. Awarded funds for research support from the COSM, UWG, May 2015, \$500
 17. Awarded GA-AL-LSAMP summer 2015 research support \$500
 18. UWG Biology Department summer 2015 research support, \$500
 19. Awarded Student Research Assistance grant by UWG Student Research Assistant program for the project “Molecular characterization of two novel *Chlamydomonas reinhardtii* (a model green micro-alga) light sensitive-mutants defective in photosynthesis.”; April, 2015; \$1700.
 20. Awarded Faculty Research Grant by the UWG College of Science and Mathematics in October, 2014 for lab supply purchase; \$1250.
 21. Awarded Georgia-Alabama Louis Stokes Alliances for Minority Participation (LSAMP) Fall fund to hire minority undergraduate research students; 2014; \$6000
 22. Awarded Uwise research grant to hire two undergraduates and purchase lab supplies, Fall 2014; \$5000.
 23. Awarded LSAMP summer research fund; summer, 2014; \$3000.
 24. Awarded Student Research Assistance grant by UWG Student Research Assistant program for the project “Molecular characterization of two *Chlamydomonas reinhardtii* (a model green micro-alga) mutants defective in photosynthesis”; April, 2014; \$1800.
 25. LSAMP research fund to hire minority undergraduate research students in spring 2014; \$6000.
 26. Awarded UWG Uwise Grant for research supplies and mentoring research undergraduates, October 17th, 2013; \$4800.
 27. Awarded Faculty Research Grant by the UWG College of Science and Mathematics in May, 2013; \$1250.
 28. Awarded Student Research Assistance grant by UWG Student Research Assistant program for the project “Characterization of *Chlamydomonas reinhardtii* (a model green micro-alga) mutants defective in photosynthetic pigment biosynthesis and photosynthesis under different irradiance conditions”; April, 2013; \$2000.
 29. Awarded the Internal Development grant by UWG office of Research and Sponsored for the project: “Employing functional genomics to study chlorophyll biosynthesis and photo-acclimation of photosynthesis in the green micro-alga *Chlamydomonas reinhardtii*”; January 2013; \$8,207.
 30. Awarded UWG Uwise Grant for research supplies and mentoring research undergraduates, November 30th, 2012; \$6700.
 31. Awarded Student Research Assistance grant by UWG Student Research Assistant program for the project “Functional genomics of eukaryotic oxygenic photosynthesis in the model

- unicellular green micro-alga *Chlamydomonas reinhardtii*"; July 2012; \$2000.
32. Awarded Faculty Research Grant by the UWG College of Science and Mathematics in April, 2012; \$1500.
 33. Awarded UWG Uwise Grant for research supplies and mentoring research undergraduates for the project titled "Employing functional genomics to identify novel genes that play a role in photo-protective mechanisms under high light stress in the green microalga *Chlamydomonas reinhardtii*. January 13th, 2012; \$600.
 34. Awarded COSM Research Incentive award by the College of Science and Mathematics at UWG, January, 2012-2013, \$3000.
 35. Awarded Student Research Assistance grant by UWG Student Research Assistant program for the project "Functional genomics of eukaryotic oxygenic photosynthesis in the model unicellular green micro-alga *Chlamydomonas reinhardtii*"; July 2011; \$2000.
 36. Awarded UWG Learning Resources Committee (LRC)-Faculty Resource Grant (FRG) for the project titled, "Employing functional genomics to study oxygenic photosynthesis in the unicellular eukaryotic model green alga *Chlamydomonas reinhardtii*"; January 2011-2012; \$2000. Awarded COSM Research Incentive award by the College of Science and Mathematics at UWG, April 2011-2012, \$3000.
 37. Awarded Summer Seed Grant for scholarship, research and creative activity award by the UWG Office of Academic Affairs, March, 2011 for the project titled, "Employing functional genomics to study oxygenic photosynthesis in the unicellular eukaryotic model green alga *Chlamydomonas reinhardtii*"; \$10,778.
 38. Awarded Student Research assistance grant by UWG Student Research Assistant program for the project "The study of Irradiance based acclimation and photosynthesis in the green alga *Chlamydomonas reinhardtii* using molecular biological tools"; June 2010; \$2000.
 39. Awarded Research Grant by the Sponsored Operations for Faculty research (SOFREA) program at University of West Georgia for the project titled "The study of Irradiance based acclimation and photosynthesis in the green alga *Chlamydomonas reinhardtii* using molecular biological tools"; January 2010; \$2,500.
 40. Awarded College of Arts and Science Faculty research grant by the University of West Georgia (\$500) for the project titled "The study of irradiance based acclimation and photosynthesis in the green alga *Chlamydomonas reinhardtii* using molecular biological tools"; January 2010; \$500.

EXTERNAL GRANTS (most recent at the top)

1. Submitted a NSF-RUI-IOS preliminary proposal (as a PI) on 18th January, 2017. Title of the proposal: Molecular Characterization of two high light-sensitive *Chlamydomonas reinhardtii* mutants, defective in a novel functionally uncharacterized gene (not invited).
2. Submitted a NSF-IOS on July, 21st, 2014 (Integrative Organismal System)-CAREER: Functional genomic characterization of two *Chlamydomonas reinhardtii* photosynthetic mutants (not awarded).
3. Submitted NSF-MRI (as a Co-PI): MRI in January 2014: Acquisition of a Time-Resolved Emission Spectrometer for Interdisciplinary Research and Undergraduate Training (not awarded).
4. Submitted a NSF-IOS-CAREER on July, 22nd, 2013: Functional genomics of eukaryotic oxygenic photosynthesis under different light irradiances in the model green micro-alga *Chlamydomonas reinhardtii*. (not awarded).

5. Submitted NSF-RUI-IOS preliminary proposal (as a PI) on 16th January, 2013. Title of the proposal: Employing functional genomics to study chlorophyll biosynthesis and photosynthesis in the model green micro-alga *Chlamydomonas reinhardtii* (not invited for a full proposal submission).
6. Submitted a NSF-IOS-Research Opportunity Award (ROA) application titled “The role of carbonic anhydrase in photosynthesis in *Arabidopsis*” on 21st December, 2012. This application was officially submitted by my Ph.D. mentor Dr. James Moroney (LSU) (not awarded).
7. Submitted a NSF-RUI-IOS preliminary proposal (as a PI) on 11th January, 2012. Title of the proposal: Characterization of a heme deficient *Chlamydomonas reinhardtii* mutant that shows a light intensity dependent chlorophyll deficiency (not invited for a full proposal submission).

RESEARCH PUBLICATIONS (student co-authors are underlined [high school student name is in bold and underlined]; **(most recent at the top)**).

1. Grovenstein PB, Lankford KL, Wilson DA, Gaston KA, Perera S and Mitra M. Identification and molecular characterization of the second *Chlamydomonas gun4* mutant, *gun4-II*. [v2; ref status: indexed, <http://f1000r.es/1id>] F1000Research 2013, 2:142 (doi: 10.12688/f1000research.2-142.v2). First Published: 19 Jun 2013, 2:142 (doi: 10.12688/f1000research.2-142.v1).
2. Grovenstein PB, Wilson DA, Lennox CG, Smith KP, Contractor AA, Mincey JL, Lankford KD, Smith JM, Hays TC and Mitra M. Identification and molecular characterization of a novel *Chlamydomonas reinhardtii* mutant defective in chlorophyll biosynthesis. [v2; ref status: indexed, <http://f1000r.es/1ic>] F1000Research 2013, 2:138 (doi: 10.12688/f1000research.2-138.v2) First Published: 10 Jun 2013, 2:138 (doi: 10.12688/f1000research.2-138.v1) (**this article was selected as the featured article of the week by the journal**).
3. Mitra M, Kirst H, Dewez D and Melis A. Modulation of the light- harvesting chlorophyll antenna size in *Chlamydomonas reinhardtii* by *TLA1* gene over-expression and RNA interference. Phil. Trans. R. Soc. B, November, 2012 367: 3430-3443.
4. Mitra M, Dewez D, Gines García-Cerdán J and Melis A. Polyclonal antibodies against the *TLA1* protein also recognize with high specificity the D2 reaction center protein of PSII in the green alga *Chlamydomonas reinhardtii*. Photosynthesis Research, 2012, 112: 39-47.
5. Mitra M, Ng S and Melis A. The *TLA1* protein family members contain a variant of the plain MOV34/MPN domain. American J. Biochem & Mol. Bio, January 2012, 2:1-18.
6. Mitra M and Melis A. Genetic and biochemical analysis of the *TLA1* gene in *Chlamydomonas reinhardtii*. Planta, 2010, 231:729-740.
- 7a. Mitra M and Melis A. Optical properties of microalgae for enhanced biofuels production, Optics Express, 2008, 16: 21807-21820.
- 7b. The article mentioned in 7a (see above), was also selected out of all the articles published every month in different journals published by Optical Society of America, for publication in “The virtual Journal for Bio Medical optics” published by Optical Society of America.

8. Tetali S, **Mitra M** and Melis A. Development of the light-harvesting chlorophyll antenna in the green alga *Chlamydomonas reinhardtii* is regulated by the novel *TLA1* gene, *Planta*, 2007, 225: 813-829.
9. Ynalvez RA, Cunnusamy K, Xiao Y, **Mitra M**, Moroney JV. Identification, cloning and characterization of two closely related beta-carbonic anhydrases in *Chlamydomonas reinhardtii* 2006, *FASEB JOURNAL* 20 (4): A476-A477 Part 1.
10. Bartlett SG, **Mitra M** and JV Moroney. CO₂ concentrating mechanisms. (A book chapter in the *Advances in Photosynthesis and Respiration* series titled "The structure and function of plastids"; March, 2006; pp 253-271; edited by Wise RR and Hooper JK; Springer).
11. **Mitra M**, Mason C, Lato SM, Ynalvez, RA, Xiao Y and Moroney JV. The three carbonic anhydrase families of *Chlamydomonas reinhardtii*. *Canadian Journal of Botany*, July 2005, 83: 780-795.
12. **Mitra M**, Lato S, Ynalvez R and Moroney JV. Identification of a new chloroplast carbonic anhydrase in *Chlamydomonas reinhardtii*. *Plant Physiology*, 2004, 135:173-182.

OTHER PUBLISHED ARTICLES (2009- present)

A. Undergraduate and high school student conference research papers from the Mitra Lab (high school students are underlined) (most recent at the top)

1. Paper Title: Identification of a Novel Gene That Plays a Role in High Light Tolerance in the Green Micro-alga *Chlamydomonas reinhardtii*.

Authors: **Kevin Nguyen**, Ja'von Swint, Joel Page III, Kenneth Kim, Katherine Smith, Tai Truong, and Kasey Swilley

Supervisor: **Dr. Mautusi Mitra**; Proceedings National Conference on Undergraduate Research (NCUR), 2017 (**accepted July 2017**).

2. Paper Title: Employing functional genomics to study chlorophyll biosynthesis in the green micro-alga *Chlamydomonas reinhardtii*.

Authors: **Tashana C. Haye**, Darryel A. Wilson, Abigail R. Lennox, Alisha A. Contractor.

Supervisor: **Dr. Mautusi Mitra**; Proceedings National Conference on Undergraduate Research (NCUR), 2013 p256-264 (**published on 14th October, 2013**).

3. Paper Title: Utilization of Functional Genomics to Study Regulation of Chlorophyll Biosynthetic Pathways in the Unicellular Green Alga *Chlamydomonas reinhardtii*.

Authors: **Kathryn D. Lankford**, Kelsey A. Gaston, Phillip B. Grovenstein, and Surangi Perera

Supervisor: **Dr. Mautusi Mitra**; Proceedings National Conference on Undergraduate Research (NCUR), 2012 pp 589- 597 (**published December 4th, 2012**).

4. Paper Title: Functional genomics of eukaryotic oxygenic photosynthesis in the model unicellular green microalga *Chlamydomonas reinhardtii*.

Authors: **Surangi Perera**, Kelsey Gaston, Phillip Grovenstein, Justin Puckett, Yakema Sheats;

Supervisor: **Dr. Mautusi Mitra**; Proceedings National Conference on Undergraduate Research (NCUR), 2011 p 805-813 (**published on 27th February, 2012**).

B. Education based article:

1. **Mitra M: Article title:** A more effective evaluation method for higher education. Published in “The Evollution” (a non-traditional education newspaper) on March, 23rd, 2012. Website address: http://www.evollution.com/curriculum_planning/a-more-effective-evaluation-method-for-higher-education/

RESEARCH PRESENTATIONS AT MEETINGS/INVITED TALKS (most recent at the top; these are separate from student research presentations from my lab at research conferences)

1. Molecular characterization of two high light-sensitive *Chlamydomonas reinhardtii* mutants, defective in a novel functionally uncharacterized gene LSR1. **Mautusi Mitra**, Kevin Nguyen, Ja’von Swint, Joel Page III, Katherine Smith, Tai Truong, Kenneth Kim and Mautusi Mitra. Photosynthesis Gordon Research Conference, Newry, ME, July 16th-July 21st, 2017 (**poster and poster flash talk**).
2. Identification of a novel gene LSR1 that plays a role in high light tolerance in the green micro-alga *Chlamydomonas reinhardtii*. **Mautusi Mitra**, Kevin Nguyen, Ja’von Swint, Joel III Page, Katherine Smith, Tai Truong, Kenneth Kim. Southern sectional-American Society of Plant Biologists meeting at Orlando, FL, April 8th-10th, 2017 (**Invited talk**)
3. Title: Importance of Undergraduate Research to students’ future careers. September 19th, 2016. Guest speaker at the UWG Honors College class for freshman: XIDS 2002- What do you Really Know about The Honors College? UWG Biology Department. (**Invited speaker**).
4. Title: Functional genomics of eukaryotic oxygenic photosynthesis and photosynthetic pigment metabolism in the model green micro-alga *Chlamydomonas reinhardtii*. December 22nd, 2015, at the Centenary Lecture Series on “ Emerging Trends in Plant Sciences” at the Department of Botany, Ashutosh College, Kolkata, India (**Invited speaker**).
5. Title: Functional genomics of eukaryotic oxygenic photosynthesis and photosynthetic pigment metabolism in the model green micro-alga *Chlamydomonas reinhardtii*. March 20th, 2015, research seminar at the University of West Alabama, Department of Environmental Sciences and Biology, 29th October 2015. (**Invited speaker**).
6. Title: Functional genomics of eukaryotic oxygenic photosynthesis and photosynthetic pigment metabolism in the model green micro-alga *Chlamydomonas reinhardtii*. March 20th, 2015, research seminar at the University of South Carolina, Department of Biology & Geology Aiken (**Invited speaker**).

7. Title: Identification and molecular characterization of a chlorophyll deficient non-photosynthetic *Chlamydomonas reinhardtii* mutant. **Mautusi Mitra**, Katherine Smith, Tai Truong, Tashana C. Haye, Theresa Fuller and Bernhard Grimm. American society of Plant Biologists southern sectional meeting, March 2014, Lexington, KY (**Invited speaker**).
8. Title: Functional genomics of eukaryotic oxygenic photosynthesis under different light irradiances in the model green micro-alga *Chlamydomonas reinhardtii*. November 2013, COSM Dean's seminar at UWG (**Invited speaker**).
9. Title: Characterization of two *Chlamydomonas reinhardtii* mutants defective in chlorophyll biosynthesis. **Mitra M**, Grovenstein PB, Wilson DA, Lankford KD, Lennox CG, Smith KP, Pawel Brzezowski P, Grimm B, Haye TC and Gaston KA. The 16th International Congress on Photosynthesis Research, St. Louis, August, 2013 (**Poster**).
10. Title: Employing functional genomics to study the regulation of tetrapyrrole metabolism in the green microalga *Chlamydomonas reinhardtii*. **Mitra M**, Grovenstein P, Schlicke H, Grimm B, Wilson D, Lankford K, Gaston K, and Smith J. The Annual Meeting of the American Society of Plant Biologists, 2012, July 20th - July 24th, Austin, Texas (**Poster**).
11. Title: Employing functional genomics to study the regulation of tetrapyrrole metabolism in the green microalga *Chlamydomonas reinhardtii*. **Mitra M**, Brzezowski P, Grovenstein P, Schlicke H, Wilson D, Gaston K, Lankford K, Smith J and Grimm B. 15th International Conference on the Cell and Molecular Biology of Chlamydomonas, Potsdam, Germany, June 5th- 10th, 2012 (**Poster**).
12. Title: Employing functional genomics to study the regulation of tetrapyrrole metabolism in the green microalga *Chlamydomonas reinhardtii*. **Mitra M**, Brzezowski P, Grovenstein P, Schlicke H, Wilson D, Gaston K, Lankford K, Smith J and Grimm B. Department of Plant Physiology, Humboldt University, Germany, May 2012 (**invited talk**).
13. Title: *TLA1*, a novel gene for the regulation of the chlorophyll antenna size in the green microalga *Chlamydomonas reinhardtii*. **Mitra M**, Kirst H, Dewez D, Ng, S and Melis A. Southern Sectional ASPB meeting, South Carolina, Myrtle Beach, March, 2012 (**Invited speaker**).
14. Title: *TLA1*, a novel gene for the regulation of the chlorophyll antenna size in the green microalga *Chlamydomonas reinhardtii*. **Mitra M**, Kirst H, Dewez D, Ng, S and Melis A. CMBB Research Club, UWG, Spring 2012 (**Biology Departmental seminar**).

15. Title: Regulation of the chlorophyll antenna size in *Chlamydomonas reinhardtii* by *TLA1* gene over-expression and RNA interference. **Mitra M**, Kirst H, Dewez D, Ng S and Melis A. Presented at the 37th Annual MidWest/SouthEast Photosynthesis Meeting, Marshall, Indiana, November, 2011 (**Invited speaker**).
16. Title: Specific polyclonal antibodies against the 23 kDa TLA1 protein also recognize with high affinity a 28 kDa protein in the green alga *Chlamydomonas reinhardtii*. **Mitra M**, Dewez D, Bachman N and Melis A. Presented at the 28th Eastern Regional Photosynthesis meeting, Marine Biological Laboratory, Woods Hole, MA, April, 2011 (**Invited speaker and Poster presentation**).
17. Title: Engaging high school seniors and college freshman undergraduates to basic molecular biology based bioinformatics research projects. **Mitra M** and Ross B (Advanced Academy of Georgia high school student). Presented at the STEM Institute at the University of West Georgia, Carrollton, GA (This institute was supported by the PRISM grant through the National Science Foundation under Cooperative Agreement Number HER-0314953) February, 2010 (**Invited speaker**).
18. Title: Regulation of the chlorophyll antenna size in *Chlamydomonas reinhardtii* by *TLA1* gene over-expression and RNA interference. **Mitra M**, Kirst H, Dewez D, Ng S and Melis A. Presented at the 19th Western Photosynthesis Meeting, Asilomar, CA, January, 2010 (**Poster**).
19. Title: Approaches, Barriers and Supports in Biological Science Research. **Mitra M**. Presented at the Department of Education at University of West Georgia, Carrollton, GA; October, 2009 (**Invited talk**).
20. Title: Solar-to-product energy conversion efficiency in photosynthesis. **Mitra M**, Kirst H and Melis A. Presented at the American Society of Plant Biologist meeting, Honolulu, HI, July 2009 by my supervisor Dr. Melis (**Poster**).
21. Title: *TLA1*, a novel gene involved in the regulation of the chlorophyll antenna size in the green alga *Chlamydomonas reinhardtii*. **Mitra M**, Kirst H and Melis A. Presented in the Department of Biological Sciences at Louisiana State University, LA, February, 2009 (**Invited speaker**).
22. Title: Genetic analysis of *Chlamydomonas reinhardtii*: Characterization of *RDPI*, a novel gene whose 3'UTR overlaps with the 5'UTR of the *TLA1* gene. **Mitra M** and Melis A. Presented at the 18th Western Photosynthesis Meeting, Asilomar, CA, January, 2009 (**Poster**).

23. Title: *TLA1*, a novel gene in the regulation of the photosynthetic chlorophyll antenna size. **Mitra M**, Kirst H and Melis A. Presented at the 34th American Society for Photobiology Meeting, Burlingame, CA, June, 2008 (**Invited speaker**).
24. Title: *TLA1*, a novel protein that functions in the regulation of the chlorophyll antenna size in *Chlamydomonas reinhardtii*. **Mitra M**, Kirst H, Titali S and Melis A. Presented at the 14th Photosynthesis Congress (organized by the International Society Of Photosynthesis Research), Glasgow, Scotland, July, 2007 (**Poster**).
25. Title: Chlorophyll antenna size adjustments in *Chlamydomonas* involve coordinate regulations of *TLA1*, *CAO* and *Lhcb* gene expressions. **Mitra M**, Kanakagiri S and Melis A. Presented at the Gordon Research conference, Photosynthesis, Smithfield, RI July, 2006 (**Invited speaker**).
26. Title: Chlorophyll antenna size adjustments in *Chlamydomonas* involve coordinate regulations of *TLA1*, *CAO* and *Lhcb* gene expressions. **Mitra M**, Kanakagiri S and Melis A. Presented at the 15th Western Photosynthesis meeting, Antenna system and light harvesting session, Asilomar, CA, January, 2006 (**Invited speaker**).
27. Title: *Chlamydomonas reinhardtii* chloroplast carbonic anhydrases: locations and possible functions. Ynalvez, RA, Mason, CB, **Mitra, M**, Lato, SM, Xiao Y and Moroney, JV. Presented at the Gordon Research Conference on CO₂ Assimilation, Aussois, France, September, 2005 (**Poster**).
28. Title: Chlorophyll antenna size adjustments in *Chlamydomonas* involve coordinate regulations of *TLA1*, *CAO* and *Lhcb* gene expressions. **Mitra M**, Kanakagiri S and Melis A. Presented at the Annual Meeting of American Society of Plant Biologists, Photosynthesis mini-symposium I, Seattle, WA, July, 2005 (**Invited speaker**).
29. Title: Carbonic anhydrase and carbonic anhydrase like genes and their roles in carbon dioxide concentrating mechanisms (CCM). **Mitra M**, Lato S, Ynalvez R and Moroney JV. Presented at the Bose Institute, Calcutta, India, October, 2004. (**Invited speaker**).
30. Title: Carbonic anhydrase and carbonic anhydrase like genes and their roles in carbon dioxide concentrating mechanisms (CCM). **Mitra M**, Lato S, Ynalvez R and Moroney JV. Presented at the Nagarjuna Fertilizers and Chemical limited, Hydrogen research Unit, Hyderabad, India, October, 2004. (**Invited speaker**).
31. Title: Genes for the regulation of chlorophyll antenna size in photosynthetic organisms & its application in photosynthetic hydrogen production. **Mitra M**, Melnicki M, Chen H and

Melis A. Presented at the Nagarjuna Fertilizers and Chemical limited, Hydrogen Research Unit, Hyderabad, India, October, 2004. (**Invited speaker**).

32. Title: The three carbonic anhydrase families of *Chlamydomonas reinhardtii*. **Mitra M**, Mason C, Lato SM, Ynalvez, RA, Xiao Y and Moroney JV. Presented at the Fifth International Symposium on inorganic carbon utilization by aquatic photosynthesis organisms, CCM, August, Québec, Canada, 2004 (**Poster**).
33. Title: Identification of a novel intracellular beta carbonic anhydrase in *Chlamydomonas reinhardtii* that is distinct from the mitochondrial forms of the enzyme. **Mitra M**, Lato S, Ynalvez R and Moroney JV. Presented at the Annual Meeting of American Society of Plant Biologists at Honolulu, HI. July, 2003 (**Poster**).
34. Title: Identification of a novel intracellular beta carbonic anhydrase in *Chlamydomonas reinhardtii* that is distinct from the mitochondrial forms of the enzyme. **Mitra M**, Lato S, Ynalvez R and Moroney JV. Presented at the Southern Sectional Meeting of the American Society of Plant Biologists. Denton, TX, March, 2003 (**Oral presentation**).
35. Title: Characterization of an alpha carbonic anhydrase in higher plants. **Mitra M** and Moroney JV. Presented at the Southern Sectional Meeting of the American Society of Plant Biologists. Baton Rouge, LA, March, 1999 (**Oral presentation**).

UNDERGRADUATE AND GRADUATE (MS) STUDENT RESEARCH PRESENTATIONS FROM MITRA LAB AT UWG (most recent at the top).

1. Molecular Characterization of Two High Light-Sensitive Mutants of *Chlamydomonas reinhardtii*, defective in a novel uncharacterized gene, LSR1. **Ja'von Swint**, Kevin Nguyen, Kenneth Kim, Joel III Page, Katherine Smith, Tai Truong, and Mautusi Mitra. LSAMP meeting, April 22, 2017, Morehouse University, Atlanta. (**oral presentation**)
2. Molecular Characterization of Two High Light-Sensitive Mutants of *Chlamydomonas reinhardtii*, defective in a novel uncharacterized gene, LSR1. **Kevin Nguyen**, Kenneth Kim, Joel III Page, Ja'von Swint, Katherine Smith, Tai Truong, and Mautusi Mitra. April 22, 2017, Morehouse University, Atlanta. (**poster**)
3. Identification of a novel gene LSR1 that plays a role in high light tolerance in the green micro-alga *Chlamydomonas reinhardtii*. **Kevin Nguyen**, Ja'von Swint, Joel III Page, Katherine Smith, Tai Truong, Kenneth Kim and Mautusi Mitra. Southern sectional-American Society of Plant Biologists meeting at Orlando, FL (**poster**)
4. Identification of a novel gene that plays a role in high light tolerance in the green micro-alga *Chlamydomonas reinhardtii*. **Kevin Nguyen**, Ja'von Swint, Joel III Page, Katherine

Smith, Tai Truong, Kasey Swilley, and Mautusi Mitra. 31st NCUR, University of Memphis, Memphis, TN, April 6th- April 8th 2017. (**poster**)

5. Identification and Molecular Characterization of a High Light-Sensitive *Chlamydomonas reinhardtii* mutant, 10E35. **Ja'von Swint**, Kevin Nguyen, Joel III Page, Katherine Smith, Tai Truong, Kasey Swilley, and Mautusi Mitra. NCUR, University of Memphis, Memphis, TN, April 6th- April 8th 2017. (**oral presentation**)
6. Molecular Characterization of Two High Light-Sensitive Mutants of *Chlamydomonas reinhardtii*, defective in a novel uncharacterized gene, LSR1. **Kevin Nguyen**, Kenneth Kim, Joel III Page, Ja'von Swint, Katherine Smith, Tai Truong, and Mautusi Mitra. UWG Scholar's Day, April 4th, 2017. (**poster**)
7. Identification of a novel gene that plays a role in high light tolerance in the green micro-alga *Chlamydomonas reinhardtii*. **Ja'von Swint**, Kevin Nguyen, Joel III Page, Katherine Smith, Tai Truong, Kasey Swilley, and Mautusi Mitra. UWG Scholar's Day, April 4th, 2017, (**oral presentation**)
8. Identification of a novel gene that plays a role in high light tolerance in the green micro-alga *Chlamydomonas reinhardtii*. **Kevin Nguyen**, Ja'von Swint, Joel III Page, Katherine Smith, Tai Truong, Kasey Swilley, and Mautusi Mitra. GURC conference at Georgia College and State University, Milledgeville, GA, November 4th-5th, 2016. (**poster**)
9. Identification and Molecular Characterization of a High Light-Sensitive *Chlamydomonas reinhardtii* mutant, 10E35. **Ja'von Swint**, Kevin Nguyen, Joel III Page, Katherine Smith, Tai Truong, Kasey Swilley, and Mautusi Mitra. GURC conference at Georgia College and State University, Milledgeville, GA, November 4th-5th, 2016. (**oral presentation**)
10. Identification and Molecular Characterization of a High Light-Sensitive *Chlamydomonas reinhardtii* mutant, 10E35. **Kevin Nguyen**, Betkens Senesca, Joel III Page, Paula Martinez-Feduchi, Kasey Swilley, Katherine Smith, Tai Truong, Phillip Grovenstein, and Mautusi Mitra. NSF-funded GA-AL-LSAMP Symposium, April 16th, 2016 (**poster, third place award winner in the poster presentation competition**).
11. Identification and Molecular Characterization of a High Light-Sensitive *Chlamydomonas reinhardtii* mutant, 10E35. **Paula Martinez-Feduchi**, **Kevin Nguyen**, **Kasey Swilley**, Katherine Smith, Tai Truong, Betkens Senesca, Phillip Grovenstein, and Mautusi Mitra. UWG Big Night, 13th April 2016 (**Poster**).
12. Identification and Molecular Characterization of a High Light-Sensitive *Chlamydomonas reinhardtii* mutant, 10E35. **Kasey Swilley**, Asia Poudel, Paula Martinez-Feduchi, Kevin

Nguyen, Betkens Senesca, Katherine Smith, Tai Truong, Tashana Haye, Phillip Grovenstein, and (Mautusi Mitra), NCUR, 2016, University of North Carolina Asheville, April 7-9, 2016 (**Oral presentation**).

13. Identification and Molecular Characterization of a High Light-Sensitive *Chlamydomonas reinhardtii* mutant, *10E35*. **Kasey Swilley**, Paula Martinez-Feduchi, Kevin Nguyen, Katherine Smith, Tai Truong, Betkens Senesca, Phillip Grovenstein, and Mautusi Mitra. UWG COSM Research Day, March 24th, 2016 (**Oral presentation, won the second place in the COSM research oral presentation competition**).
14. Identification and Molecular Characterization of a High Light-Sensitive *Chlamydomonas reinhardtii* mutant, *10E35*. **Paula Martinez-Feduchi**, Kevin Nguyen, Kasey Swilley, Katherine Smith, Tai Truong, Betkens Senesca, Phillip Grovenstein, and Mautusi Mitra. 5th Annual Undergraduate Research Symposium of Natural Sciences and Mathematics at the University of West Alabama, Livingston on 8th March 2016 (**Poster**).
15. Molecular Characterization of Two *Chlamydomonas reinhardtii* Light Sensitive-Photosynthetic Mutants. **Kasey Swilley**, Ewan Petersen, Rigoberto Segovia, Katherine Smith, Tai Truong, Tashana Haye, Precious Ajala, Zachary Nofs, Phillip Grovenstein and Mautusi Mitra. UWG Big Night, UWG, April 14th, 2015 (**Poster**).
16. Characterization of two *Chlamydomonas reinhardtii* mutants which are defective in chlorophyll biosynthesis and photosynthesis. **Katherine Smith**, Phillip Grovenstein, Darryel Wilson, Kathryn Lankford, Abigail R. Lennox, Tashana Haye, Kelsey Gaston, Pawel Brzezowski, Bernhard Grimm and Mautusi Mitra. UWG Big Night, Spring, 2015 (**Poster**).
17. Functional genomic characterization of a light sensitive *Chlamydomonas reinhardtii* mutant defective in photosynthesis. **Tai Truong**, Katherine Smith, Tashana Haye, Kiana Brown, Zachary Nofs, Precious Ajala, Ewan Peterson, Rigoberto Segovia and (Mautusi Mitra), NCUR 2015, Eastern Washington University, Cheney, WA (**Oral presentation**).
18. Functional Genomic Characterization of a light sensitive *Chlamydomonas reinhardtii* mutant defective in photosynthesis. **Katherine Smith**, Tai Truong, Tashana Haye, Kiana Brown, Zachary Nofs, Precious Ajala, Ewan Peterson, Rigoberto Segovia and (Mautusi Mitra), NCUR 2015, Eastern Washington University, Cheney, WA (**Oral presentation**).
19. Functional Genomic Characterization of a light sensitive *Chlamydomonas reinhardtii* mutant defective in photosynthesis. **Katherine Smith**, Tai Truong, Tashana Haye, Precious Ajala, Zachary Nofs, Precious Ajala, Ewan Petersen, Rigoberto Segovia, Phillip Grovenstein, Bernhard Grimm and Mautusi Mitra, NSF-funded GA-AL-LSAMP Symposium, April 11th, 2015 (**oral presentation, second place award winner in the research oral presentation competition**).
20. Molecular Characterization of Two *Chlamydomonas reinhardtii* Light Sensitive-Photosynthetic Mutants. **Ewan Petersen, Rigoberto Segovia**, Katherine Smith, Tai

Truong, Tashana Haye, Precious Ajala, Zachary Nofs, Phillip Grovenstein and Mautusi Mitra, NSF-funded GA-AL-LSAMP Symposium, UWG campus, April 11th, 2015 (**Poster presentation**).

21. Molecular Characterization of Two *Chlamydomonas reinhardtii* Light Sensitive-Photosynthetic Mutants. **Katherine Smith, Tai Truong**, Tashana Haye, Precious Ajala, Zachary Nofs, Ewan Petersen, Rigoberto Segovia, Phillip Grovenstein and Mautusi Mitra, American Society of Plant Biologists, southern sectional meeting, Mobile, AL, March 28th-30th, 2015 (**Poster presentation**).
22. Functional Genomic Characterization of a light sensitive *Chlamydomonas reinhardtii* mutant defective in photosynthesis. **Katherine Smith, Tai Truong**, Tashana Haye, Precious Ajala, Zachary Nofs, Ewan Petersen, Rigoberto Segovia, Phillip Grovenstein, Bernhard Grimm and Mautusi Mitra, COSM Research Day, March 26th, 2015 UWG campus (**Oral presentation**).
23. Functional genomic characterization of a light sensitive *Chlamydomonas reinhardtii* mutant, *IOE35*, that is defective in photosynthesis. **Tai Truong, Katherine Smith**, Tashana Haye, Precious Ajala, Kiana Brown, Ewan Petersen, Zachary Nofs, Rigoberto Segovia, and Mautusi Mitra. COSM Research Day, March 26th, 2015 UWG campus (**Oral presentation**) (**Tai won the First place in the competition** and has been selected to present research on the Big Night at campus on April 14th, 2015; **\$250 cash award and a certificate**).
24. Characterization of two *Chlamydomonas reinhardtii* mutants which are defective in chlorophyll biosynthesis and photosynthesis. **Katherine Smith**, Phillip Grovenstein, Darryel Wilson, Kathryn Lankford, Abigail R. Lennox, Tashana Haye, Kelsey Gaston, Pawel Brzezowski, Bernhard Grimm and Mautusi Mitra. 40th MidWest/SouthEast Photosynthesis Conference. Marshall, Indiana, October, 2014. (**Poster presentation**).
25. Functional genomics of two *Chlamydomonas reinhardtii* mutants defective in photosynthesis. **Tashana Haye, Katherine Smith, Tai Truong, Bernhard Grimm** and Mautusi Mitra. 40th MidWest/SouthEast Photosynthesis Conference. Marshall, Indiana, October, 2014. (**Poster presentation**).
26. Molecular characterization of a chlorophyll deficient *Chlamydomonas reinhardtii* (a green micro-alga) mutant defective in photosynthesis. **Tai Truong, Tashana C. Haye, Theresa M. Fuller, Bernhard Grimm** and Mautusi Mitra. 49th National Collegiate Honors Council, Denver, Colorado, November, 2014 (**Poster presentation**).
27. Identification and molecular characterization of a novel *Chlamydomonas reinhardtii* chlorophyll deficient non-photosynthetic mutant. **Katherine P. Smith, Tashana C. Haye, Tai L. Truong, Chavar T. Sinclair, Theresa M. Fuller, Michelle A. Kinsey** and Mautusi Mitra. 20th Annual SAEOPP McNair/SSS Research Symposium, June, 2014, Atlanta, GA (**Oral presentation**).

28. Molecular characterization of three *Chlamydomonas reinhardtii* mutants defective in photosynthesis. **Tashana Haye, Katherine Smith, Theresa Fuller**, Tai Truong, Phillip Grovenstein (Mautusi Mitra). LSAMP (NSF funded program) meeting at the Clark Atlanta University, April, 2014. (**Poster presentation**).
29. Characterization of a *Chlamydomonas reinhardtii* mutant defective in chlorophyll biosynthesis. **Tashana C. Haye, Tai L. Truong, Theresa M. Fuller**, Phillip Grovenstein, Kelsey A. Gaston, (**Mautusi Mitra**) NCUR, March, 2014 at Lexington, KY (**Poster presentation**).
30. Identification and molecular characterization of a novel *Chlamydomonas reinhardtii* chlorophyll deficient non-photosynthetic mutant. **Katherine P. Smith**, Tashana C. Haye, Tai L. Truong, Chavar T. Sinclair, Theresa M. Fuller, Michelle A. Kinsey, (Mautusi Mitra) NCUR, March 2014 at Lexington, KY (**Oral presentation**).
31. Identification and Molecular Characterization of a Novel *Chlamydomonas reinhardtii* Mutant that Lacks Detectable Chlorophyll. **Tashana Haye**; College of Science & Mathematics, Research Day (**First place, \$250 cash award and a certificate**), March 2014. (**Oral presentation**).
32. Employing functional genomics to study chlorophyll biosynthesis in *Chlamydomonas reinhardtii*. **Katherine Smith**, Tai Truong and Theresa Fuller Big Night Poster Presentation, 2014 (**Poster**).
33. Title: Identification and Molecular Characterization of a Novel *Chlamydomonas reinhardtii* Mutant that Lacks Detectable Chlorophyll. **Tashana Haye**; Georgia Undergraduate Research Conference (GURC), January 2014, in Columbus, GA. (**Oral presentation**) **Tashana won the best research paper presentation award (\$100 cash award and a certificate)**.
34. Title: Identification and Molecular Characterization of a novel *Chlamydomonas reinhardtii* Chlorophyll Deficient Non-photosynthetic Mutant. **Theresa Fuller**; Georgia Undergraduate Research Conference (GURC), January 2014, in Columbus, GA. (**Oral presentation**).
35. Title: Identification and Molecular Characterization of a Novel *Chlamydomonas reinhardtii* Mutant that Lacks Detectable Chlorophyll. **Cameron Lennox**; Research Day, UWG, Spring 2013, (**Oral presentation**).
36. Title: Employing functional genomics to study chlorophyll biosynthesis in the green micro-alga *Chlamydomonas reinhardtii*. **Tashana C. Haye**, Darryel A. Wilson, Abigail R. Lennox, Alisha A. Contractor, Pawel Brzezowski, Bernhard Grimm, Mautusi Mitra. 27th National Conference on Undergraduate Research (NCUR); University of Wisconsin-La Crosse, Wisconsin USA; April 11th - 13th, 2013 (**Oral presentation**).
37. Title: Characterization of two *Chlamydomonas reinhardtii* mutants which are defective in chlorophyll biosynthesis and photosynthesis under different irradiance conditions.

American Society of Plant Biologists, southern sectional (SS-ASPB) meeting from April 3rd - 6th, 2013, at Little Rock, Arkansas. **Kathryn Lankford, Darryel Wilson, Phillip Grovenstein, Abigail R. Lennox, Kelsey Gaston, Pawel Brzezowski, Bernhard Grimm and Mautusi Mitra (Poster presentation; awarded first place in the undergraduate research Poster competition (\$150 cash award and a framed certificate).**

38. Title: Employing functional genomics to study the regulation of tetrapyrrole metabolism in the green microalga *Chlamydomonas reinhardtii*. **Darryel Wilson, Pawel Brzezowski, Phillip Grovenstein, Hagen Schlicke, Kathryn Lankford, Kelsey Gaston, Jacqueline Smith, Bernhard Grimm and Mautusi Mitra.** 47th National Collegiate Honors Council Annual Conference, Boston, MA, November 14th - November 18th, 2012, (**Poster presentation**).
39. Title: Utilization of functional genomics to study regulation of chlorophyll biosynthetic pathways in the unicellular green alga *Chlamydomonas reinhardtii*. **Kathryn Lankford, Kelsey Gaston, Phillip Grovenstein, Surangi Perera and Dr. Mautusi Mitra.** National Conference on Undergraduate Research (NCUR), Weber College, Utah, March 29th - March, 31st, 2012, (**Oral presentation**).
40. Title: Employing functional genomics to identify novel genes that play a role in high light sensitivity. **Kathryn Lankford, Darryel A. Wilson, Phillip B. Grovenstein, Jacqueline M. Smith, Justin T. Puckett, Daniel V. Foster and Dr. Mautusi Mitra.** National Conference on Undergraduate Research (NCUR), Weber College, Utah, March 29th - March, 31st, 2012, (**Poster presentation**).
41. Title: Employing functional genomics to identify novel genes that provide photo-protection to plants in high light stress. **Darryel Wilson, Jacqueline M. Smith, Kathryn Lankford, Phillip B. Grovenstein and Dr. Mautusi Mitra.** Southern Sectional American Society of Plant Biologists Meeting, South Carolina, March 3rd - 5th, 2012, (**Poster presentation**).
42. Title: Employing functional genomics to study the regulation of tetrapyrrole metabolism in the green micro-alga *Chlamydomonas reinhardtii*. **Phillip Grovenstein, Hagen Schlicke, Bernhard Grimm, Darryel Wilson, Kelsey Gaston, Kathryn Lankford, Jacqueline Smith and Mautusi Mitra** Southern Sectional American Society of Plant Biologists Meeting, South Carolina, March 3rd - 5th, 2012, (**Oral presentation**).
43. Title: Employing functional genomics to study regulation of light independent and light dependent chlorophyll biosynthetic pathways in the model unicellular green alga *Chlamydomonas reinhardtii*. **Phillip Grovenstein, Lankford, Justin Puckett, Kelsey Gaston, Darryel Wilson, Bernhard Grimm and Dr. Mautusi Mitra.** 37th Annual MidWest/South East Photosynthesis Meeting, Marshall, Indiana, November 2011, (**Poster presentation**).

44. Title: Employing functional genomics to identify novel genes that provide photo-protection under high light stress in the green microalga *Chlamydomonas reinhardtii*. **Justin Puckett**, Phillip Grovenstein, Kathryn Lankford, Jacqueline Smith, Darryel Wilson, Daniel Foster and Dr. Mautusi Mitra. 37th Annual MidWest/South East Photosynthesis Meeting, Marshall, Indiana, November 2011, (**Poster presentation**).
45. Title: Functional Genomics of Eukaryotic Oxygenic Photosynthesis in the Model Unicellular Green Microalga *Chlamydomonas reinhardtii*. **Kathryn Lankford**, Phillip Grovenstein, Kelsey Gaston, Surangi Perera, Justin Puckett and Dr. Mautusi Mitra. 46th Annual National Collegiate Honors Council Conference, Phoenix, Arizona from October 19th -23rd, 2011, (**Poster presentation**).
46. Title: Functional genomics of eukaryotic oxygenic photosynthesis in the model unicellular green microalga *Chlamydomonas reinhardtii*. **Phillip Grovenstein**, Kelsey Gaston, Surangi Perera, Yakema Sheats, Edna Esume, Confidence Ndukwe, Isaiah Clinton, Rashidat Odewale and Dr. Mautusi Mitra. The Southern Sectional meeting of the American Society of Plant Biologists (ASPB) at the Gulf Coast Research Laboratory University of Southern Mississippi Ocean Springs, MS from April 9th - April 11th, 2011, (**Poster presentation**).
47. Title: Employing functional genomics to study eukaryotic oxygenic photosynthesis in the green yeast/ micro-alga *Chlamydomonas reinhardtii*. **Kelsey Gaston**, Surangi Perera, Phillip Grovenstein, Yakema Sheats, Edna Esume, Confidence Ndukwe, Isaiah Clinton, Rashidat Odewale and Dr. Mautusi Mitra. The Research Day, Undergraduate Science Student Research Paper Presentation at UWG campus, 5th April, 2011, (**Oral presentation**).
48. Title: Employing functional genomics to study eukaryotic oxygenic photosynthesis in the green yeast/ micro-alga *Chlamydomonas reinhardtii*. **Yakema Sheats**, Phillip Grovenstein, Kathryn Lankford and Surangi Perera, Edna Esume, Confidence Ndukwe, Isaiah Clinton, Rashidat Odewale and Dr. Mautusi Mitra. The Big Night, Undergraduate Science Student Research Poster Presentation at UWG campus, 2011, (**Poster presentation**).
49. Title: Functional genomics of eukaryotic oxygenic photosynthesis in the model unicellular green micro-alga *Chlamydomonas reinhardtii*. **Kelsey Gaston**, Surangi Perera, Phillip Grovenstein, Yakema Sheats, Edna Esume, Confidence Ndukwe, Isaiah Clinton, Rashidat Odewale and Dr. Mautusi Mitra. Eastern Regional Photosynthesis Meeting at Woods Hole, MA, April 1st - 3rd, 2011, (**Poster presentation**).
50. Title: Functional genomics of eukaryotic oxygenic photosynthesis in the model unicellular green microalga *Chlamydomonas reinhardtii*. **Kelsey Gaston**, Surangi Perera, Phillip Grovenstein, Yakema Sheats, Edna Esume, Confidence Ndukwe, Isaiah Clinton, Rashidat Odewale and Dr. Mautusi Mitra. Georgia Collegiate Honors Council

Conference at Clayton State University, GA on February 26th, 2011, (**Oral presentation**).

51. Title: Functional genomics of eukaryotic oxygenic photosynthesis in the model unicellular green microalga *Chlamydomonas reinhardtii*. **Surangi Perera**, Kelsey Gaston, Phillip Grovenstein, Justin Puckett, Yakema Sheats and Dr. Mautusi Mitra. National Conference on Undergraduate Research (NCUR), Ithaca College, New York, March 31st - April 2nd, 2011, (**Oral presentation**).

PARTICIPATION IN OTHER PANELS:

Participated in the Biology Career Panel organized by the UWG Marine Biology Club on October 12th, 2016 in the Biology Department.

PROFESSIONAL WORKSHOPS ATTENDED

The Biology Department at UWG sponsored me to attend a three day Professional Grant Development Workshop organized by the Grant training Center (Arlington, Virginia) at the Georgia Institute of Technology from October 20th - October 22nd, 2010.

TECHNICAL EDITOR SERVICE

Journal of Plant Sciences (Science Alert journal) (2010- 2011)
American journal of Plant Physiology (Science Alert journal) (2010-2011)

AD HOC PEER REVIEWER SERVICE

1. Agriculture
2. Journal of Applied Phycology
3. Science Alert
4. Proceedings of the National Conference on Undergraduate Research
5. Planta (Springer)
6. BBA-Bioenergetics
7. Nature protocols
8. F1000 Research
9. Scientific Reports (Nature)

SERVICE AS A NSF PANELIST/AD HOC REVIEWER

NSF-IOS-EDGE Ad Hoc reviewer 2016 (**served**)
NSF-BIO-IOS panelist 2014 (**served**)
NSF-BIO-IOS panelist 2012 (**Invited but could not serve**)

COMMITTEE WORK

- 2016 - 2018:** COSM Technology Committee
- 2016 – 2018:** Departmental Technology Committee at the University of West Georgia
- 2015 - 2017:** Faculty Development Committee (UWG committee)
- 2015- 2018:** Graduate Curriculum Committee Biology Dept., UWG
- 2014 - 2016:** COSM Dean’s Advisory Committee
- 2011-2014:** Departmental Undergraduate Curriculum and Instruction Committee
- 2009-2011:** Departmental Technology Committee at the University of West Georgia
- 2012-2015:** Departmental Technology Committee at the University of West Georgia
- 2013-2016:** Seminar and Special Events Committee, Biology Dept., UWG
- 2009:** Multicultural Ball organizing committee (Institutional Diversity at the UWG)
- 2005-2006:** Event organizing committee of the UC Berkeley Postdoctoral Association
- 2001-2003:** Executive member of BIOGRADS (a nonprofit student association in the Department of Biological sciences at Louisiana State University)
- 2002-2003:** Student Executive member of Baton Rouge Bengali Association (Louisiana)
- 2011 - Present:** Committee member of five Biology graduate committees at UWG

OTHER ACADEMIC INVOLVEMENTS (most recent at the top)

1. Served as a judge and moderator of the graduate oral presentation competition at the American Society of Plant Biologists southern sectional meeting, March 28th-30th, 2015, Mobile, AL.
2. Have conducted an outreach activity for 20 Chemistry majors enrolled in the course “Tools and Applications” at UWG on March 9th, 2015
3. Have served as a science fair judge at the West Georgia Regional Science & Engineering Fair, Carrollton, GA
4. Served as a judge for the undergraduate student research Poster competition at the SS-American Society of Plant Biologists meeting in 2014, Lexington, KY.
5. Have conducted cell and molecular biology based-outreach activities for Lithia Springs High school students and IB Biology program students from the Carrollton High School and their Biology teacher, in fall 2013.
6. In fall 2012, I have participated in the First IV paired studies (Faculty Institutes for Reforming Science education- a NSF funded program). In this study I was teamed up with a First IV postdoctoral fellow to conduct a teaching study of instructors and students in an Introductory Biology course.

7. In fall 2012, I introduced a group of high school students from local schools in Carrollton (GA) to a 45 minutes University level class in Plant Molecular Biology on the “College for a day”.
8. I have served as the chair of the “CO₂ metabolism and Chloroplast biogenesis” session at the MidWest/South East Photosynthesis meeting at Marshall, Indiana in November 2011.
9. My research lab has participated in July, 2011 in the Henry and Camille Dreyfus funded “Research experience via Active Collaboration of high Schools (REACH) program” at UWG to present lab’s research to a group of 24 motivated high school students and their teacher as they develop competitive science fair projects.
10. My lab is participating in the NSF funded, Georgia-Alabama Louis Stokes Alliances for Minority Participation (LSAMP) program for increasing the number of minority students in STEM careers. I have mentored several LSAMP students. My lab is also participating in the Uwise program which is a Georgia Board of Regents initiative to increase the number of STEM majors, particularly teachers in Georgia. In this program, a senior undergrad student (Bio major) in my lab has been teamed up with a Fresh man (Bio major) to conduct research. I am a research mentor for the SRAP (Student Research Assistance Program) students and Honors College research students at UWG.
11. At UWG, there were no Biology departmental seminars when I joined the department. My research lab started a Cell, Molecular Biology and Biochemistry Research (CMB) club in the Department of Biology in fall, 2010, where the faculties and students can present their personal research or discuss any interesting paper in the field to get novel research ideas. This research club seminar series has been transformed into Biology Departmental seminar series in spring, 2012.
12. I have created a scholarship in fall, 2011 for undergraduate and graduate research students conducting research in the field of Molecular Photosynthesis called “Molecular Photosynthesis Research Award” in the Biology Department. This award (\$500) is given annually to one research student to present his/her research at national research conferences and is sustained by my personal funds.
13. I took several initiatives to improve the research infrastructure in the Biology department/campus at UWG. Some of these initiatives are procuring a tax-free ethanol permit, getting Web of Science, acquiring a power generator for the department and the purchase of a Bio-Rad Real time PCR machine and a ChemiDoc XRS+ camera.
14. Some of the students from my research lab have been accepted into STEM graduate programs (Ph.D.) with full funding at the University of Cambridge (UK), UC Berkeley Michigan State University and Kansas State University; two are working as research associates at Emory University and at Algenol biofuel respectively; two are in Pharmacy school, five others have entered Medical schools (Georgia Regents University, Mercer

University in Georgia, Upstate Medical University, New York, and University of Florida, Gainesville). One high school student is a Biology major at University of Pennsylvania and the other graduated from UCLA with a Bio major degree and is joining the PA school in fall 2015 at Penn State. One student has recently started working as a post market clinical specialist at ALKU Quality at Waltham, MA. Many of these successful students are first generation college graduates. Thus I have an established record of motivating students in pursuing STEM careers.

15. I have created an undergraduate mentorship program that is bridging the former UWG biology majors, who have successful careers in STEM fields, with current UWG STEM majors. My former UWG Bio major students can share their career experiences and offer valuable mentorship to guide the UWG Biology major students in their career paths. Topics of interest in the program are: different jobs for Biology majors, preparation needed for such jobs, CV and personal statement writing, preparation for a job/school interviews and even going through a “mock” interview” via Skype. As the program evolves, I will involve my research collaborators from other institutions, to seek out successful undergrads from their departments to join the program. The bridge currently operates informally via e-mails, Skype, LinkedIn and social network (Face Book) and my research lab website.

SOCIETY MEMBERSHIPS

American Society of Plant Biologists

International Society of Photosynthesis Research

Sigma Xi, The Scientific Research Society (elected full member)

SOCIAL SERVICE

I have been involved in the summer of 1999 in the voluntary service of tutoring high school children in the Boys Hope of Baton Rouge (Louisiana), which is an affiliate of an international program for hurt and at-risk, yet academically capable youth.

PROFESSIONAL REFERENCES

Dr. Anastasios Melis (Professor, Department of Plant and Microbial Biology, University of California, Berkeley, 111 Koshland Hall, Berkeley, CA 94720-3102; Tel #-510-642-8166; e-mail:- melis@berkeley.edu)

Dr. Krishna K. Niyogi (Professor, Chair, Plant and Microbial Biology, 371A Koshland Hall Berkeley, CA 94720-3102; Tel #: 510.643.6602; e-mail:- niyogi@berkeley.edu)

Dr. James V. Moroney (Professor, Department of Biological Sciences, Louisiana State University, 424 Life Sciences Building, Baton Rouge, LA70803; Tel #- 225-578-8561; e-mail:- btmoro@lsu.edu)

Dr. Leos Kral (Professor, Department of Biology, University of West Georgia, 1601 Maple Street, Carrollton, GA 30118; Tel #- 678-839-4023; e-mail:- lkral@westga.edu)