

CURRICULUM VITAE

- A) Name: Ayodotun O. Sodipe, Ph.D.
 B) College of School: College of Science, Engineering and Technology
 C) Department: Biology
 D) Date and Rank of First Appointment: 09/01/2010; Assistant Professor
 E) Secondary Appointment(s) if any: Graduate School— since 2010
 F) Years Granted Toward Tenure at Time of Employment: None
 G) Current Rank: Associate Professor
 H) Date of Current Rank: 09/01/2016
 I) Date of Tenure (if held): Not Applicable
 J) Faculty Excellence Award Sought: None
 Proposed Action Sought:
 Conferral of Tenure, and /or –Tenure
 Rank of proposed promotion- Associate Professor
- K) Years of Academic Service: 5
 L) Whether or not a degree is terminal: Ph.D. (Terminal Degree)
 M) Schools attended/dates:
- | | |
|------------------------------------|-----------|
| St. Peters Anglican Primary School | 1967-1973 |
| Comprehensive High School Ayetoro | 1973-1978 |
| Federal School of Arts and Science | 1979-1981 |
| University of Ilorin | 1981-1983 |
| George Williams College | 1984-1985 |
| Texas Southern University | 1985-1990 |
| University of Michigan | 1992-1994 |
| Texas Southern University | 1996-2000 |
| Texas Southern University | 2003-2008 |
- N) Degrees Earned/ Field/ Dates:
- | | | |
|-------|--------------------------|------|
| B.S. | Biology | |
| Ph.D. | Environmental Toxicology | 2008 |
- O) Special Training Programs/Fields/Dates
- | | |
|--|--------------|
| 1) The Safe Handling of Radioactive Materials in
Research and Clinical Laboratories | 2012-Present |
| 2) Safety in Laboratory and Clinical Environment | 2010-Present |
| 3) Genomics and Proteomics | 2013-Present |
| 4) Radiation Safety | 2013-Present |
- P) Field(s) of Interest
- | | |
|--|--|
| 1) Teaching: General Biology, Microbiology, Experimental Biology, Plant Biology,
Anatomy and Physiology, Advanced Plant physiology and Biochemistry,
Biology Seminar for undergraduate, Graduate Biology Seminar, Seminar
for Health Related Profession, Environmental Sampling | |
| 2) Research: Radiation and Microgravity; Mycology; Forensic Biology | |

Q) Professional Employment: appointments, Institution, date
Teaching Assistant 2000-2006 Texas Southern University
Research Associate 2003-2008 Texas Southern University
Visiting Instructor 2006-2008 Texas Southern University
Visiting Assistant Professor 2008-2010
Assistant Professor 2010-Present Department of Biology, Texas Southern University

R) Consultantships and Professional Services: dates: None

S) Organizations: memberships and offices held: dates

Minority to research career 1985-1988

Tri Beta biology honor society 1986-1989

Society of Toxicology 2006-Continuing

Texas Academy of Science 2010-Continuing

T) Fellowships and Honors: dates: None

U) Awards and prizes: dates: None

V) Grants: dates, amounts whether approved and/ or funded, nominee's level of participation and whether or not Principal investigator.

Active Support:

1. Source and Identifying No: **NNX10AQ16A (NHX08BA47A old)**
NASA Group 4 URC

Principal Investigator: Dr. Olufisayo Jejelowo Ph.D.

Title: Center for Bio-nanotechnology and environmental research

Role in Projector: Project Coordinator

Dates and Cost of: 10-1-2008-9-30-13, \$5M (total)

Dates and Cost of Current year: \$5M (total)

Recent efforts: To identify the effect of microgravity and radiation on carcinogenic and develop countermeasures: Training and development of students in STEM area

2. Source and Identifying No: **NNX11AD38G**

Principal Investigator: Dr. Ayodotun O. Sodipe Ph.D.

Purpose: Systematic identification of Genes and transduction pathways involved in radioadaptive response.

Role in the Project: Project Coordinator

Dates and Cost of: 01/01/2011 through 12/30/2012 \$30,000(total)

3. Source and Identifying No: Project PEP: **General Mills**

Purpose: Physical Activity, To reduce Risk Factors for Chronic Diseases In Low Income Cuney Homes.

Role in the Project: Co- PI

Dates and Cost: 2015 \$20,000

Completed:

1. TSU SEED GRANT

Title: The Effect of Genotoxic Compounds on Gene Expression and Cellular Structure in Yeast Model:

Role in project: Principal Investigator

Dates and Cost of the entire project: 01/09/13-08/31/13, \$7,500

2. TSU SEED GRANT

Title: The Effects of Nutritional Status on APOL1 Gene Variants Expression

Role in Project: Co-Principal Investigator

Dates and Cost of the entire project: 01/09/- on going \$10,000

Proposals in Progress:

NSF RESEARCH PROJECT (13-510) FOR MOLECULAR AND CELLULAR BIOSCIENCE (MCB)

Title: Development of a cell model system for the assessment of the impact of antioxidant following exposure to multiple toxicants

Role in the Project: Co-Principal Investigator

Dates and Cost of the entire project: \$3M+/3yrs

NSF RESEARCH PROJECT (NSF 15-552) BROADENING PARTICIPATION RESEARCH (BPR)

Title: Implementation and Evaluation of Technology Driven Active Learning in STEM Courses

Role in the Project: Co-Principal Investigator

Dates and Cost of the entire Project: \$300,000 for 3yrs

W) Scholarships:

1) Publications and Presentation with complete citations (MLA or Chicago Manual of Style, etc.): by category, most recent first.

(a) Books and Monographs

Books

1. **Ayodotun O. Sodipe**, Identification of Stachybotrys species using Genomic methods, Lambert Pub, ISBN:978-3-659-43589-8, 2013

Book chapters

1. Pommerville J. (2013) Fundamentals of Microbiology. Pp 627-789
2. Hoefnagels M. Biology. (2015) "The Essentials".
3. Bozzone D and Green D. Biology for the Informed Citizen with Physiology.
4. Scully T. Discovery Biology. (2014).
5. Chiras D. Environmental Science. (2015).

(b) Articles (Peer-reviewed full-length research articles)

1. Obaid Ullah, Shahlla Nargis Mir, Kelly St Rose, and **Ayodotun Sodipe** (2015) Transcriptome analysis of Graphene toxicity in Saccharomyces : In Press.
2. George Glasgow, Linda Gardiner, Shahlla Mir, Olufisayo Jejelowo, **Ayodotun Sodipe** (2014) The Effect of Industrial Grade, Multi Walled Carbon Nanotubes on Saccharomyces Cerevisiae (IJAST) Vol. 4, No. 3
3. **Ayodotun O. Sodipe**, Francis Ogonnia, Shalondria Simpson, Linda Gardiner, Olufisayo Jejelowo (2013) Amplification of Stachybotrys Gene using PCR (EIJST) ISSN:2304-969 3
4. Ashley Purgason, Ye Zhang, Stanley Hamilton, Daila Gridley, **Ayodotun Sodipe**, Jejelowo Olufisayo, Govindarajan Ramesh, and Honglu Wu. Molecular and Histopathological Changes in Mouse Intestinal Tissue after Proton Exposure.
5. Tariq MA, **Sodipe A**, Ramesh GT, Wu H, Zhang Y, Shishodia S, Gridley DS, Pourmand N, Jejelowo O. 2011. The effect of acute dose charge particle radiation on expression of DNA repair genes in mice. Mal Cell Biochem. 2011 Mar; 349(1-2).
6. Baluchamy, S., Zhang, Y., Ravichandran, P., Ramesh ,V., **Sodipe, A.**, Hall, JC., Jejelowo, O., Gridley, DS., Wu, H., Ramesh, GT . (2010) Expression profile of DNA damage signaling genes in 2 Gy proton exposed mouse brain. Mol Cell Biochem. 341(1- 2):207-15.
7. Baluchamy, S., Zhang, Y., Ravichandran, P., Ramesh, V., **Sodipe, A.**, Hall, JC., Jejelowo ,O., Gridley, DS., Wu, H., Ramesh GT. Differential oxidative stress gene expression profile in mouse brain after proton exposure.(2010) In Vitro Cell Dev Biol Anim. 46:718-725.
8. Rosenzweig JA, Abogunde O, Thomas K, Lawal A, Nguyen YU, **Sodipe A**, Jejelowo O. (2009). Spaceflight and modeled microgravity effects on microbial growth and virulence. Appl Microbial Biotechnol. 2009 Oct 22.
9. Sudhakar Baluchamy, Prabakaran Ravichandran, Vani Ramesh, **Ayodotun Sodipe**, Joseph C. Hall, Olufisayo Jejelowo, Honglu Wu and Govindarajan T. Ramesh. (2010) Induction of oxidative stress and tissue damage by high energy proton particles in brain. Advances in Space Research.
10. Sudhakar Baluchamy, Ye Zhang, Prabakaran Ravichandran, Vani Ramesh, **Ayodotun Sodipe**, Joseph C. Hall, Olufisayo Jejelowo, Gridley, Daila, Honglu Wu and Govindarajan T. Ramesh. (2010) Expression Profile of DNA Damage Signaling Genes in Proton Exposed Mouse Brain. Journal of Cellular Biochemistry

(c) Reviews of candidate's scholarly/creative works

(d) Abstracts In Conference Proceedings:

1. Rolle Georgette, Jejelowo, Olufisayo A, **Sodipe, Ayodotun** and Shishodia, Shishir. "High energy radiation and Micro gravity- Induced Epigamic Changes: Reversal and Suppression by Natural Agents". 112th Annual meetings of Texas Academy of Science, Texas Tech University, Junction Texas March 5-7, 2009.
2. Johnson, Phylis, Jejelowo, Olufisayo A, **Sodipe, Ayodotun** and Shishodia, Shishir. "Potential role of Natural products against High energy production". 112th Annual Meetings of The Texas Academy of Science, Texas Tech University, Junction, Texas, March 5-7, 2009.
3. Ohunene Abogunde, Abidat Lawal, Kelsey Parks, Chelsea McCoy, Y-Uyen, Ngugen, **Ayodotun Sodipe**, Olufisayo Jejelowo and Jason A Rosenzweig. "Evaluation of E-Coli and B. Subtitles after space flight on board Atlantis 575-129 TAS 2010. (Texas Academy Science Stephenville Texas)2010
4. Shanunte Abdin, Jejelowo, Olufisayo, **Ayodotun Sodipe** and Hector Miranda. "Rates and Patterns of Mitochondrial CO1 change in aspergillums and other Fungi". (Texas Academy of Science Stephenville Texas)2010
5. Anita Lewis, Phylis Johnson, Olufisayo Jejelowo, **Ayodotun Sodipe**, and Shishir Shishodia. "Natural products against the negative effects of microgravity". Texas academy of science (Texas Acedemy of Science Stephenville Texas 2010) 2010
6. Georgette Rolle, Sarah Munyu, Olufisayo A Jejelowo, **Ayodotun O. Sodipe**, and Shishir Shishodia. "Mechanism of high energy radiation induced inflammation" Texas academy of science 2010, (Astrobiology Symposium Houston Texas)2010
7. Georgette Rolle, Sarah Munyu, Emmanuel Obi, Ayo Jejelowo, Olufisayo A. Jejelowo, **Ayodotun Sodipe**, and Shishir Shishodia, High energy radiation induced activation of COX-2 and MMP-9 is mediated by NF-kappaB. Astrobiology Science Conference 2010, Houston, TX.
8. M Akran Tariq, Shishir Shishodia, Govindarajan T Ramesh, **Ayodotun Sodipe**, Olufisayo Jejelowo, and Nader Pourmand. " DNA Repair Genes expression analysis of acute dose charge particles radiation"(Astrobiology Science Conference Houston Texas 2010)
9. Anita Lewis, Phylis. Johnson, O.A Jejelowo, **Ayodotun O. Sodipe**, and Shishir. Shishodia. "The prospective function of curcumin against the negative effects of microgravity". (Astrobiology Science Conference Houston Texas 2010)
10. Georgette Rolle, Sarah Munyu, Olufisayo Jejelowo, **Ayodotun Sodipe**, and Shishir Shishodia, " High energy radiation induced activation of COX-2 and MMP-9 is mediated by NF- KAPPA-B". (Astrobiology Science Conference Houston Texas 2010)
11. Anita Lewis, Sarah Munyu, Olufisayo A. Jejelowo, **Ayodotun Sodipe**, and Shishir Shishodia. Activation of Pro-inflammatory Transcription Factor by Modeled Microgravity and High-Energy Particle Radiation, 114th Annual

Meeting of the Texas Academy of Science, St. Edwards University, Austin, Texas, March 3-5, 2011.

12. Jejelowo AO, **Sodipe AO**, Wu H, Zhang Y, Jejelowo OA, Shishodia S. High Energy Particle Radiation Activates Inflammatory Pathways, 18th IAA Humans in Space Symposium, Houston, TX, April 11-15, 2011.

(e) Artistic Exhibits (group, invited, one-person) and Performance (directed, written, performed)

(f) Other - In case of multiple authorships, the candidate's level of participation should be indicated.

2) Other achievements in the area of scholarship

(a) Patents

(b) Reviewing of papers submitted for publication to professional Journals
Urinary Excretion Patterns of endogenously produced alcohols in type 2 diabetes Patients" Pakistan Journal of Molecular Medicine (Pakistan J. Mol.Med)

(c) Reviewing of grants proposals
NASA EPSCOR
NASA MUREP
NASA MIRO
National Science Foundation (NSF)

X) Teaching (classroom, Undergraduates, and Graduates)

1) 2000: 4.5 credits (fall semester only)
Fall 2000: 4.5 credits, undergraduate
BIOL122:Biological science laboratory (3 sections)

2001:4.5 credits(spring semester only)
Spring 2001:4.5 credits, undergraduate
BIOL122: Biological science laboratory(3 sections)

Fall 2001: 4.5 credits, undergraduate
BIOL 122: Biological science laboratory (2) (3sections)
2002: 9 credits (spring and fall semester only)

Spring 2002:4.5 credits, undergraduate
BIOL 122: Biological science laboratory (3 sections)
Fall 2002: 4.5 credits, undergraduate
BIOL122: Biological science laboratory (3 sections)

2003: 9 credits, (spring and fall semesters only)
Spring 2003: 4.5 credits, undergraduate
BIOL 112: Biological science laboratory (3 sections)
Fall 2003: 4.5 credits, undergraduate
BIOL 122: Biological science laboratory (3 sections)

2004: 9 credits (spring and fall semester only)
Spring 2004: 4.5 credits, undergraduate
BIOL 122: Biological science laboratory (3 sections)
Fall 2004: 4.5 credits, undergraduates
BIOL 122: Biological science laboratory

2005: 9 credits (spring and fall semester only)
Spring 2005: 4.5 credits, undergraduate
BIOL 122: Biological science laboratory (3 sections)
Fall 2005: 4.5 credits, undergraduate
BIOL 122: Biological science laboratory (3 sections)

2006: 24 credits, (spring and fall semester only)
Spring 2006: 12 credits, undergraduate
BIOL 143: Survey of life science (2 sections)
BIOL 347: Microbiology laboratory (2 sections)
BIOL 300: Seminar Hlth Related Profs
BIOL 499: Seminar for biology

Fall 2006: 12 credits, undergraduate
BIOL 347: Microbiology laboratory (2 sections)
BIOL 300: Seminar Hlth Related Profs
BIOL 499: Seminar for Biology
BIOL 143: Survey of life science (2 Sections)
2007: 24 credits, (spring and fall semester only)

Spring 2007: 12 credits, undergraduate
BIOL 143: Survey of life sciences (2 sections)
BIOL 347: Microbiology laboratory (2 sections)
BIOL 300: Seminar Hlth Related Profs
BIOL 499: Seminar for biology

Fall 2007: 12 credits, undergraduate
BIOL 143: Survey of life science (2 sections)
BIOL 438: Plant Biology
BIOL 438L: Plant biology lab
BIOL 347: Microbiology laboratory (2 sections)
2008: 24 credits (spring and fall semester only)

Spring 2008: 12 credits, undergraduate

BIOL 143: Survey of life science (2 sections)
BIOL 245: Human Anat,& Physiology
BIOL 300 : Seminar Hlth Related Prof
BIOL 499: Seminar for biology

Fall 2008: 12 credits, undergraduate
BIOL 143: Survey of life science (2sections)
BIOL 438: PLANT BIOLOGY
BIOL438L: Plant biology
BIOL 499: Seminar for biology
BIOL 300: Seminar for hlth related prof
2009: 24 credits (spring and Fall semester only)

Spring 2009: 12 credits, undergraduate
BIOL 348: Experiments in biology (2 sections)
BIOL 143: Survey of life science
BIOL 300: Seminar for Hlth Related Prof
BIOL 499: Seminar for Biology

Fall 2009: 12 credits, undergraduate
BIOL 143: Survey of life sciences
BIOL 438: Plant Biology
BIOL 438L:Plant Biology Laboratory
BIOL 300: Seminar for Hlth Related Prof
BIOL 499: Seminar for Biology
2010: 12 credits,(spring)

Spring 2010: 12 credits, undergraduate
BIOL 132: Biological science 2
BIOL 499: Seminar for Biology
BIOL 438:Plant biology
BIOL 438L: Plant Biology laboratory
BIOL300: Seminar for Hlth Related Prof
BIOL 143: Survey for life sciences

Fall 2010:14 credits, undergraduate
BIOL 132: Biological science 2
BIOL 143: Survey for life sciences
BIOL 300: Seminar for Hlth Related Prof
BIOL 347: Microbiology
BIOL 499: Seminar for Biology

Spring 2011: 14 credits, undergraduate
BIOL 132: Biological Science 2
BIOL 300: Seminar for Health Related Prof
BIOL 400: Seminar for Biology

Fall 2011: 14 credits, undergraduate
BIOL 143L: Survey of life Science laboratory(2 Sections)
BIOL 143: Survey of Life Sciences(2 Sections)
BIOL 300: Seminar for Health Related Prof
BIOL 438: Plant Biology
BIOL 438L: Plant Biology Laboratory

SPRING 2012: 10 credits, undergraduate
BIOL 111L: Bio science laboratory 1(1section)
BIOL 122: Bio Science laboratory 2(3 sections)
BIOL 131 : Biological Science (2 Sections)
BIOL 143: Survey of Life Science
BIOL 300: Seminar for Health Related Prof

FALL 2013:
BIOL 300: Seminar for Health Related Prof
BIOL 347: Microbiology
BIOL 401: Undergraduate Research
BIOL 499: Biology Seminar
BIOL 795: Graduate Biology Seminar

SPRING 2013:
BIOL 132: Biological Science 11
BIOL 300: Seminar for Health Related Prof
BIOL 401: Undergraduate Research
BIOL 862: Research Problems

FALL 2014:
BIOL 785: Adv Plant Physio &Biochem 1(1 Section)
BIOL 499: Biology Seminar 1 (1 Section)
BIOL 795: Graduate Biology Seminar 1 (1 Section)
BIOL 861: Research Problems 1 (1 Section)
BIOL 300: Seminar Hlth Related Prof 1 (1Section)
BIOL 401: Undergraduate Research 08 (1 Section)

SPRING 2014:
BIOL 300: Seminar for Hlth Related Prof (1 Section)
BIOL 347: Microbiology (1 Section)
BIOL 401: Undergraduate Seminar (1 Section)

FALL 2015:

- BIOL 499: Biol Seminar I (1 Section)
- BIOL 795: Graduate Biol Seminar 1 (1Section)
- BIOL 861: Research Problems 1 (1Section)
- BIOL 300: Seminar Hlth Related Prof 1 (1 Section)
- BIOL 401: Undergraduate Research 9 (1Section)

SPRING 2015:

- BIOL 112: Biol Sci lab 2 (4Sections)
- BIOL 461: Environ Sampling & Analysis 1 (1Section)
- BIOL 862: Research Problems 09 (1Section)
- BIOL 300: Seminar Hlth Related Prof 1 (1 Section)
- BIOL 401: Undergraduate Research 09 (1 Section)

2) Other contributions to the area of teaching

(a) **Revised the syllabus** of the following courses

- Biol.111- General Biology Lab
- Biol. 112- General Biology Lab
- Biol. 131- General Biology
- Biol. 461- Enviro Sampling & Analysis
- Biol. 785- Adv Plant Physio & Biochem

(b) **Organized several seminars** by bringing eminent scientists through NASA-CBER program. By Bringing in different professional schools through our seminar classes.

(c) Participating in the **College for A Day** that inspire Minority students to consider Careers in STEM Related fields.

(d) Participate in **McNair Scholars Program**

(e) Review a textbook for McGraw Hill publisher (2011)

(f) Participate in COSET Summer Undergraduate Research Program

Y) Graduate Contributions as Supervisor/Advisor- Theses and Dissertations: names of students, titles of project, and dates:

1. Ayodeji Jejelowo (Supervisor: Shishir Shishodia) The Effects of High Energy Particles on Protein Expression in Mice Intestinal Tissue, 12/17/2010.
2. Anita Lewis, (Supervisor: Shishir Shishodia) Modulation of Transcription Factors in Space Related Stress. 03/23/2011.
3. Nene Abogunde (Supervisor: Dr. Jason Rosenzweig), Evaluation of *Escherichia coli* and *Bacillus Subtilis* after Space Flight On Board Atlantis STS-129, 11/17/2011.
4. Sharlene Law (Supervisor: Dr. Olufisayo Jejelowo) Comparative Study of *Aspergillus nidulans* Growth Under Normal Gravity and Simulated Gravity Using High Aspect to Ratio Vessel and Slow Turning Lateral Vessel, 12/1/2011.

5. Anu Mathew (Supervisor: Dr. Olufisayo Jejelowo) Effects of radiation on *Candida albicans*, 12/03/2011.
6. Nellen Nwaobasi (Supervisor: Dr. Olufisayo Jejelowo) The Effect of Simultaneous Exposure of both Microgravity and Radiation to the *Candida albicans* Fungi: Cytoskeleton and Membrane Proteins, 12/03/2011.
7. Tashaineyea Merrell (Supervisor: Dr. Olufisayo Jejelowo) Comparison Of *Aspergillus Nidulans* Following Exposure To Microgravity, 12/06/2011.
8. Linda Noukeu (Supervisor: Dr. Shishir Shishodia) Simulated Microgravity Induces Apoptosis In Human T-Lymphocytes, 04/23/2013.
9. Melissa Greene (Supervisor: Dr. Shishir Shishodia) Curcumin Suppresses Simulated Microgravity-Induced Epigenetic Changes, 06/25/2013.
10. Kursten Berry (Supervisor: Dr. Ayodotun Sodipe) The analysis of *Aspergillus Nidulans* under stressor conditions: Simulated Microgravity and Starvation, March 2013.
11. Shahla Nargis Mir (supervisor: Dr. S. Riazuddin) "Association Between Milk Protein Polymorphism and Milk Production Traits In Sahiwal Cattle" 2013.
12. Nkem Azu (Supervisor: Shishir Shishodia) "Simulated Microgravity Induces Epigenetic Changes" 03/03/2014.
13. Kimberly Akilah Gilkes (Supervisor: Dr. Shishir Shishodia) Apoptotic Effects of a Novel Diruthenium Compound, 04/11/2014.
14. Djene Keita (Supervisor: Hyun-Min Hwang) 'Fate and Transport of Triclosan in Brays Bayou' 03/20/2015.
15. Shari Galvin (Supervisor: Ayodotun Sodipe) Radiation Tolerance in the Tardigrade *Milnesium tardigradum*, 03/27/2015.

Z) Service to the University, the Profession and the Community: activity, dates

1) Membership in College and Department Committees College Committees:

2009-Present

Scholarships and Awards
Events and Homecoming
Research Committee
Recognition and Scholarship
Department Committees

2009-Present

Grievance Committee
Budget, Facilities and planning Committee
Recruitment Committee (students)
Committee on teacher certification/except and exit exams and freshman major and non major
Faculty Development Committee