Curriculum Vitae

Candidate shall format the *Curriculum Vitae* to include the following A-Z categories:

A) Name
Alamelu (Lalita) Sundaresan
B) College or School
College of Science and Technology
C) Department
Biology
D) Date and Rank of First Appointment
August 23,2005, Assistant Professor, tenure track, Sept 2011, Associate Professor, tenured , Sept 2016 promoted to Full Professor.
E) Secondary Appointment(s) (if any)
- **University of Texas Medical School in Houston: Adjunct Assistant Professor fo Surgery, 2002-present.**
- **NASA Johnson Space Center, Houston, TX 2007-2009, NASA Administrator's Fellow**
- **NASA Johnson Space Center, Houston, TX 2006-2007, Director, Osteoimmunology and Integrative Physiology Laboratory**

F) Years Granted Toward Tenure at Time of Employment
N/A
G) Current Rank
Associate Professor
H) Date of Current Rank
I) September 10, 2011Date of Tenure (if held)
N/A
J) Proposed Action
K) **Vita updateFourteen.**Whether or not degree is terminal (with explanation if degree is not a doctorate)
Ph.D. Terminal Degree
L) Schools Attended: dates
University of Texas, School of Public Health, Houston, TX.
1997, Degree conferred-May 1998
Vector Control Research Center (World Health Organization), Pondicherry, India. 1990
Women's Christian College, Madras, India,
1988
M) Degrees Earned: fields, dates
Women's Christian College, Madras, India, Zoology BSc
1988
Vector Control Research Center (World Health Organization), Pondicherry, India.
MSc Medical Entomology 1990
University of Texas, School of Public Health, Environmental Sciences, Ph.D.
1997

N) Special Training Programs: fields, dates-TBA

Department of Veterans Affairs Sexual Harassment Training, 2005,2007,2009
Department of Veterans Affairs No Fear Act Whistle Blower Training, November 2008- Present
Department of Veterans Affairs Annual Review Training, 2008- Present
Department of Veterans, Bio- Safety and Bio-Security Training, 2008-Present
Department of Veterans, Cyber Security Awareness Training, 2008- Present
Department of Veterans, Driving Policy Training, 2008- Present
Department of Veterans, CITI Human Protocol Training, 2008-Present
UNCFSP Institute for Advancement-Winning Governments Contracts, November 2008
NASA Johnson Space Center, Hazardous Material and Blood Bone Pathogens, 2009- Present

O) Field(s) of Interest

Primary Research Capability: Immune suppression, bone biology, tissue engineering, cardiovascular biomarkers and nutritional immunomodulation.

1. Upstream targets in lymphocyte signaling in microgravity
2. Adaptive genetic response gene suites in microgravity, hypergravity and high altitude stress
3. Lymphocyte locomotion and signal transduction in microgravity
4. Immune suppression, cardiovascular biomarkers and nutritional immunomodulation.
5. Bone tissue engineering and resorption models
6. Melanoma models in microgravity
7. Particulate and nanoparticulate toxicity models
8. Three-dimensional mathematical tissue modeling of heavy ion effects.

Other Research Capabilities

1. *Molecular Methods*
   Extraction of plasmid DNA, Purification of DNA & RNA, Southern and Northern blot hybridization, Restriction and elution of DNA fragments, Ligation reactions, Transformation of bacteria, Polymerase chain reaction, RT-PCR, Real time PCR, Transfection of mammalian cells, Subcloning using viral and non-viral vectors, RNase protection Assay, Gel-shift assays, Nuclear run on Assay, Screening cDNA libraries, Genomics (Affymetrix and Illumina Platforms).
2. *Protein Methods*
   SDS (Sodium dodecyl sulfate) Polyacrylamide gel electrophoresis, Western blotting, Immunoprecipitation, Protein purification, ELISA (Enzyme Linked Immunosorbent Assay), 2-D gels, Chromatography, Fluorometry, Proteomics (Intelligent platform)..
3. *Cell Biology and Immunology*
   Tissue engineering, tissue culture and cell line development from human biopsies, mammalian cell culture (Bone cells, lymphocytes, colon carcinomas, NHL-B lymphoma cell lines, neuroblastoma, leukemia, melanoma, AIDS lymphoma, alveolar macrophage, Burkitts lymphoma), Thymidine incorporation assay, Isolation of B and T cells, Immunohistochemistry, Immunofluorescence techniques , Confocal

microscopy, Mammalian tissue culture and maintenance, Drug Testing and Bioassay, Analysis of apoptosis in lymphoid cells, Cell adhesion assays, Lymphocyte locomotion assay, Popliteal lymph node assay, Parasite culture techniques FISH, In situ hybridization, Thymidine incorporation assay, B cell activation assay.

4. *Biochemical, Animal and Environmental Science Techniques*
   Liposomal formulation of drugs, Glutathione S transferase assay, Superoxide dismutase assay, GTPase assay, Rodent lung lavage, Transgenic mouse colony maintenance, Rodent injections, General animal techniques, radiation techniques, soil analysis, microbial analysis, air sampling.
5. *Bioreactor Methods*
   Bioreactor (NASA RWV and HARV) cell culture and detoxification.

Research Interest Keywords: Projects

- Upstream targets in lymphocyte signaling in microgravity
- Adaptive genetic response gene suites in microgravity, hyper gravity and high altitude stress
- Lymphocyte locomotion and signal transduction in microgravity
- Immune suppression, cardiovascular biomarkers and nutritional immunomodulation.
- Bone tissue engineering and resorption models
- Melanoma models in microgravity
- Particulate and Nano particulate toxicity models
- Three-dimensional mathematical tissue modeling of heavy ion effects.

P) Professional Employment: appointment, institution, dates
2005-present:

APPOINTMENTS

Texas Southern University, Houston, TX	2016- Professor of Biology Texas Southern University, Houston, TX Texas Southern University, Houston, TX 2011-2016, Associate Professor Biology
Texas Southern University, Houston, TX	2005- 2011, Assistant Professor Biology
NASA Johnson Space Center, Houston, TX	2007-2009, NASA Administrator's Fellow
NASA Johnson Space Center, Houston, TX	2006-2007, Director**,** Osteoimmunology and Integrative Physiology Laboratory

2001–2005
Director: Cellular Movement and Signal Transduction Laboratory, NASA Johnson Space Center, Houston, TX;

Senior Research Scientist: Universities Space Research Association (USRA), NASA Johnson Space Center,Houston, TX
Assistant Professor of Surgery: University of Texas Health Science Center at Houston, Medical School,Houston, TX.
Assistant Professor: Human Health and Performance, University of Houston, Houston, TX.
Lecturer: Space Medicine and Physiology Course offered at UTHSC and UTMB.
Lecturer: Immunology Course for medical and graduate students at the University of Texas Health Science Center at Houston, Houston, TX
International Consultant: IUPCRS Microgravity laboratory, Porto Allegre, Brazil
Visiting Scientist and Lecturer: Tokushima University, Japan
Chair-Cell Biology sessions-NASA Investigators Working Group Meetings since 2000

Q) Consultantships and Professional Services: dates
CONSULTANCIES:
International Consultant at the Microgravity Center
Norway Biomaterials Group

R) Organizations: memberships and offices held, dates
PROFESSIONAL AFFILIATIONS
European Low Gravity Research Association
Association of Space and Gravitational Biology
European Society of Biochemistry
Interdisciplinary Transport Phenomena
Association for the Advancement in Science - European Biochemical Society
Society for In Vitro Biology
Reviewer-"Clinical Nutrition", Journal of Biomedical Sciences, European Space foundation and European Space Agency, National Science Foundation.
International Consultant-IUPCRS Microgravity laboratory, Porto Allegre, Brazil**.**
Adjunct Asst.Professor-University of Texas Medical School and University of Houston, Department of Health and Human performance.
Scientific Committee member: Inter disciplinary transport phenomena symposia.
Editor: Asian Pacific Journal of Chemical Engineering-Tissue Engineering

S) Fellowships and Honors: dates

NASA Administrator Fellowship Award- National Aeronautics Space Administration 2006-2008.

T) Awards and Prizes: dates

- Interview with Deutsche well for Womens day-March 2018
- Women in Scientific Excellence in Texas, July 2015:
- Johnson Space Center- NASA University Research 1 project Group Achievement Award-January 2015(Principal Investigator)

- Best Research Award: July 2014 for The International Congress on Nutrition and Integrative Medicine (ICNIM) for the project "AHCC Triggers Immune Proliferation and Activation of Human Lymphocytes via Targeted Phenotypic and Genotypic Transformation".-July, 2014.
- Deans leadership Award-June 2011
- Faculty-Best Presentation Award, Texas Southern University, Research Week, 2006, 2009.
- Travel award –Invited Speaker-15th Humans in Space Symposium, May 22-26, 2005, Graz, Austria.
- Invited Speaker- Session on Gene expression-International Society of gravitational and Space Physiology, June 26-July 1, 2005, Cologne Germany.
- NASA Space Life Sciences-Biological Systems Office Special Achievement Group Award in teaching and research, 2005.January, 2005.
- NASA Life Sciences achievement award for teaching "Physiology and Medicine" graduate level course at UTMB Galveston, 2002
- Excellence in Science award from Wyle Laboratories (Aug.1999)
- Trainee medal received during pre-doctoral fellowship (1997)
- World Health Organization (WHO) and Indian Council of Medical Research Fellowship for pursuing a PhD program (1990)
- Ranked second among 50 in the University in Master's program (1990)
- Indian Council of Medical Research Fellowship for Master's program in Medical Entomology (1988)
- Ranked second in Microbiology and Zoology in B.S program (1988)
- Gold medals in jeopardy, elocution, debate, creative writing and dramatics (1972-1990)

U) Grants: dates, amounts, whether approved and/or funded, candidate's level of participation, and whether or not Principal Investigator

GRANTS /FUNDED SUPPORT: All grants are individual awards to Dr.Sundaresan and not group or institutional grants.

1. PI: Gene expression and transcriptomics of ETAS Effects in an APP murine model . Funded by Amino Up Chemical, Jan 1-Dec 31, 2018. $23,316.00

2. PI:NSF "Targeted Infusion Project: Establishment of an Undergraduate Peer-Mentor Project-Based Program in STEM at Texas Southern University," June 1, 2017 -May 31, 2020.
, $393,985.00.
3. PI: Studies of marker and chemo-microcapsules in normal and breast tumor cells". Nu Vue Therapeutics, Feb 1, 2015-March 31, 2016 ($55,000.00+$50000.00). December 31, 2016-2017.
4. : PI: Subcontract agreement between SAIC (Science Applications International Corportion NASA and TSU. May 18, 2015-September 30, 2016 ($25,691.20).

5. PI: Mickey Leland Faculty led -Study Abroad grant from Texas Southern University-Awarded January 2015 –September 30, 2015 ($ 2500.00).

6. PI: NASA Johnson Space Center (JSC) International Space Station (ISS) University Research Project .The effect of benzofuran 2-carboxylic acid derivatives in the augmentation of the immune system (UR-1)- 2013-2015 (1.67 million –Tsu-$375,000.00). TSU lead over five other HBCUs.

7. PI: Effects of AHCC in human lymphocytes in modeled microgravity. Pilot grant from Amino Up Chemical Company, Japan March 2013-August 2015($25,000.00),
Second awrd-$10000.00. Contract (March 1 2016-April 30, 2017) reviewed and in signature stageus –Office of TSU provost.

8. PI: The effect of UV radiation on skin fibroblasts in parabolic flight and microgravity: National Space Grant Foundation, 2013 ($5000.00).

9. PI-Development and elucidation of technologies to mitigate bone loss in microgravity: UNCSFP-NASA grant awarded 2011. Grant period 2011-2014 ($600,000.00).

10. Principal Investigator: Toxicological studies of Lunar dust in three dimensional lung tissue models; NASA grant, awarded, 2010-2011($50,000.00)

11. Co-Principal Investigator: Dr.D.Das/Dr.Alamelu Sundaresan. Modelling 'in vitro' cell culture under microgravity conditions using NASA's rotating bioreactor. Travel Grant to invite scientists from abroad, the Royal Society, UK. 2010 (15000.00 pounds sterling).

12. NASA Administrator's Fellowship Program (NAFP) FAR research endeavor: Awarded July, 2008-2010 with matching NASA funds ($75,000.00).

13. Principal Investigator: NASA administrator's Grant: Awarded from 2007-2009 ($200,000)

14. Principal Investigator: NASA Institute of Science and Technology Grant award, 2008-2011 ($100,000.00) per year for three years..,
15. Principal Investigator: NIH Faculty Fellowship Award: Research and Community, Cardiovascular Disease and Stroke"- 2006-2007 ($75,000.00)
16. Principal investigator: Targeting Specific Bone Cell Signaling Pathways and Immune Suppression in Microgravity. NASA grant award. 2005-2008 (total $115,000.00).

17. Co-Principal Investigator, The effect of radiation and simulated microgravity on genomic stability-NASA NRA grant, 2005-2009 (150,000.00 per year).

18. Co-Principal Investigator, Bone resorption models in microgravity-NASA CDDF (Jan 2004-December 7200), $ 250,000).$100,000.00 carried over to TSU in August 2005 when Dr.Sundaresan came from NASA to TSU).

19. Co-Investigator, NASA Grant, NRA-01-OBPR-06, Kathleen Cole, Ph.D., PI,Proposal dates: 10/01/02 – 9/30/05. $150,000 per year. Title: Effects of prolonged exposure to a ground-based rotating cell culture system (RCCS) environment during embryonic development on skeletal morphogenesis, cephalization, locomotory and feeding behavior and subsequent reproductive development in the isogenic fish, Rivulus marmoratus.

Pending:

1.. Co-Principal Investigator on International ESA/NASA (ILSRA) grant on Somatic Hypemutation in B cells (one million overall) with Dr.Jean Paul Frippiat (PI), University of Lorraine, Nancy, France. **Awarded** pending flight manifest,2018/2019.

2. PI: Alamelu Sundaresan
Project/Proposal Title: Signaling mechanisms in cognitive function
Project Number:
Source of Support: HBCU-UP, EIR NSF collaborative proposal
Total Award Amount: $ 893920.27
Total Award Period Covered: 06/01/2019-5/31/2022, 3.0 years
Location of Project: Texas Southern University
Person-Months per Year Committed to the Project: Summer: 1.5 months

Completed work: Only from 2005

1. Principal Investigator: Preliminary studies of Lunar dust in three dimensional lung tissue models; NASA HRP grant, awarded, 2010-2011
2. Co-Principal Investigator: Dr.Diganta Das and Dr.Alamelu Sundaresan. Modelling 'in vitro' cell culture under microgravity conditions using NASA's rotating bioreactor. Travel Grant to invite scientists from abroad, the Royal Society, UK. 2010).
3. NSF Travel Award for Joint NSF JAM conference, June 2010.
4. Principal Investigator: NASA Administrator's Fellowship Program (NAFP) FAR research endeavor: Awarded July 2008 with matching NASA funds.
5. Principal Investigator: NASA administrator's Grant: Awarded from 2007-2009.
6. Principal Investigator: NIH Faculty Fellowship Award: Research and Community, Cardiovascular Disease and Stroke"- 2006-2008.
7. PI: Targeting bone loss in microgravity: NASA Human Research Program grant, 2005-2007.

Completed Space Flight and Analog Microgravity Missions:

1. ISS-UR-1-Spacex-3: The Investigation of Countermeasures to Modulate and Augment the Immune System (NanoRacks-ISS University Research (UR) – 1)-April 16, 2014.Prinicipal Investigator.

2. Zero-G Parabolic Flight 1-November 2013-Effects of UV induced DNA damage in human skin during spaceflight. Principal Investigator.

3. Zero-G Parabolic Flight 2-July 2014 –Efficacy of Psoralen induced cell killing in breast cancer cells in microgravity. Principal Investigator.

4. Future team member for Sounding Rocket missions and Space x 8 –Thyroid cancer and ESA spheroids mission with Dr.Daniela Grimm, PI.

V) Scholarship: **Major contributor in all publications liseted. Many as first or corresponding author.**

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

(a) Books or Monographs:

Sundaresan A, Risin D and Pellis NR. Cell Growth in Microgravity. In: Meyers, R.A, Sendtko, A. and Henheik, P. (eds.), Encyclopedia of Molecular Cell Biology and Molecular Medicine, Vol. 2, pp 303-321, Wiley-VCH, Weinheim, Germany, 2004.

Neal R. Pellis · Alexander Chouker · B. Yic · Svantje Tauber · Oliver Ullrich · A. Sundaresan. Overview and Translational Impact of Space Cell Biology Research. Chapter · December 2015.DOI: 10.1007/978-1-4939-3277-1_1 In book: Effect of Spaceflight and Spaceflight Analogue Culture on Human and Microbial Cells, pp.3-37. http://www.springer.com/us/book/9781493932764

3. Clinical Nutrition Chapters
4. Intech chapter with Anil
5. Space Pharmacology chapter
6.Lmphocyte Chapter

(b) Articles in preparation: Scientific reports-2

Published:

1. https://www.ncbi.nlm.nih.gov/sites/myncbi/1Pui9zxsUm-Qy/bibliography/52006958/public/?sort=date&direction=ascending
2. Sigrid Haugen,1 Jianying He,2 Alamelu Sundaresan,3 Astrid Kamilla Stunes,4,5 Kristin Matre Aasarød,4,5 Hanna Tiainen,1 Unni Syversen,4,6 Bjørn Skallerud,2 and Janne Elin Reseland1,* Adiponectin Reduces Bone Stiffness: Verified in a Three-Dimensional Artificial Human Bone Model In Vitro. Front Endocrinol (Lausanne). 2018; 9: 236.
3. Okoro E, Mann V, Ellis I, Mansoor E, Olamigoke L, Marriott KC, Denkins P, Williams W, Sundaresan A. Immune modulation in normal human peripheral blood mononuclear cells (PBMCs) (Lymphocytes) in response to benzofuran-2-carboxylic acid derivative KMEG during spaceflight. Microgravity Science and Technology. 2017 August; 29(4): 331-336. DOI: 10.1007/s12217-017-9551-z.
4. Sundaresan A, Mehta S.K, Schlegel T.T., Russomano T, Pierson D.L, Mann V, Olamigoke L, Mansoor E, Okoro E. Placental Growth Factor Levels in Populations with High Versus Low Risk for Cardiovascular Disease and Stressful Physiological Environments such as Microgravity: A Pilot Study: Placental growth factor levels in cardiac disease. Microgravity science and technology. 2017 February 02; :1-5.
5. Doursout MF, Liang Y, Sundaresan A, Wakame K, Fujii H, Takanari J, Devakottai S, Kulkarni A. Active hexose correlated compound modulates LPS-

induced hypotension and gut injury in rats. Int Immunopharmacol. 2016 Aug 5;39:280-286. doi: 10.1016/j.intimp.2016.07.023. [Epub ahead of print]
6. Neal R. Pellis · Alexander Chouker · B. Yic · Svantje Tauber · Oliver Ullrich · A. Sundaresan. Overview and Translational Impact of Space Cell Biology Research. Chapter · December 2015.DOI: 10.1007/978-1-4939-3277-1_1 In book: Effect of Spaceflight and Spaceflight Analogue Culture on Human and Microbial Cells, pp.3-37. http://www.springer.com/us/book/9781493932764
7. D.Grimm, J,Grosse, V.Mann, J.E.Reseland, A.Sundaresan and T.Corydon, The impact of microgravity on bone. Bone. Vol 87, pages 44-56, June 2016.
8. Thomas J. Corydona Vivek Mann, Lasse Slumstrup, Sascha Kopp,Jayashree Sahana, Anne Louise Askou, Nils E. Magnusson David Echegoyen, Toke Bek Alamelu Sundaresan, Stefan Riwaldta, Johann Bauerf, Manfred Infangerand Daniela Grimm. .Reduced Expression of Cytoskeletal and Extracellular Matrix Genes in Human Adult Retinal Pigment Epithelium Cells Exposed to Simulated Microgravity. Cell Physiol Biochem 2016;40:1-17.
9. AHCC Activation and Selection of Human Lymphocytes via Genotypic and Phenotypic Changes to an Adherent Cell Type: A Possible Novel Mechanism of T Cell Activation.Olamigoke L, Mansoor E, Mann V, Ellis I, Okoro E, Wakame K, Fuji H, Kulkarni A, Francoise Doursout M, Sundaresan A.Evid Based Complement Alternat Med. 2015;2015:508746. doi: 10.1155/2015/508746. Epub 2015 Dec 15.PMID: 26788109 Free PMC Article.
10. Kogiso M, Wakame K, Sakai T, Yamamoto S, Sundaresan A, Kulkarni AD*Active Hexose Correlated Compound and T Cell Response in Hind - Limb - Unloaded BALB/c Mice. International Journal of Surgery and Research (IJSR) / IJSR-2379-156X-02-501 9Dec 2015) .
11. A. Sundaresan, K. Marriott, J. Mao, S. Bhuiyan, and P. Denkins. The effects of benzofuran-2-carboxylic acid derivatives as countermeasures in immune modulation and cancer cell inhibition.. Microgravity Sci. Technol. (2015) 27:129–140.
12. Claudia Ulbrich,1 Markus Wehland,2 Jessica Pietsch,2 Ganna Aleshcheva,2 Petra Wise,3 Jack van Loon,4,5,6 Nils Magnusson,7 Manfred Infanger,2 Jirka Grosse,8 Christoph Eilles,8 Alamelu Sundaresan,9 and Daniela Grimm10. Review Article. The Impact of Simulated and Real Microgravity on Bone Cells and Mesenchymal Stem Cells. BioMed Research International.Volume 2014 (2014), Article ID 928507, 15pages.
http://dx.doi.org/10.1155/2014/928507http://dx.doi.org/10.1155/2014/928507
13. Clarke, M.S.F*., **Sundaresan, A***.,Vanderberg, C.,and Pellis, N.R., A three-dimensional tissue culture model of bone formation utilizing rotational co-culture of human adult osteoblasts and osteoclasts Acta Biomaterialia, Volume 9, Issue 8, August 2013, Pages 7908–7916.
14. A. Sundaresan, S.Devakottai, J. E. Reseland: Effects of load on normal human osteoblast function. European Cells and Materials,. Volume No 26 - Supplement 2,pages 32-33 – 2013.
15. A. Kulkarni, **A. Sundaresan**, M. Rashid, S. Yamamoto and F. Karkow: Application of diet derived taste active components for clinical nutrition. E-pub in 'Current Pharmaceutical Design, Jul 26, 2013.

16. Shah, S., Walker, P., **Sundaresan, A**., Moore-Olufemi, S., Kulkarni, A., Andrassy, R., "An Evidence based Review of a Lentinula edodes Mushroom Extract as Complementary Therapy in the Surgical Oncology Patient," The Journal of Parenteral and Enternal Nutrition. JPEN J Parenter Enteral Nutr July 2011 vol. 35 no. 4 449-458
17. **A.Sundaresan**: A Possible Cardiovascular Predictor of Susceptibility to Microgravity. International Journal of Transport Phenomena Volume 12, Number 1-2,pg 93-100, December 2011.
18. **Sundaresan.A**, Gibson T, Cao T, Clemens C and James J: Cellular effects of lunar simulant mineral dust on Human Airway Epithelial Cells: Proceedings of ITP2011,Interdisciplinary Transport Phenomena VII. Fluid, Thermal, Biological, Materials and Space Sciences, (13) pg 3-7, 2011.
19. **Sundaresan, A**., Ponomarev, A., Vazquez, M., Guida, P., Kim, A., and Cucinotta, F., "A Computer Model of the Effects of Heavy Ion Radiation on Human Tissue," Advances in Space Research, 47, pp 37-48, 2011.
20. **Sundaresan, A**., Russomano, T., dos Santos, M., Bosquillon, C., Falcao, F., Marriot, C., Forbes, B., "Modeling the Effects of Microgravity on the Permeability of Air-Interface Respiratory Epithelial Cell Layers," Advances in Space Research, 46(6), pp 712-718, 2010.
21. **Sundaresan, A.,** Ponomarev, A., Vazquez, M., Guida, P., Kim, A., and Cucinotta, F., "A Computer Model of the Effects of Heavy Ion Radiation on Human Tissue," **Advances in Space Research**, 47, pp 37-48, 2011.
22. **Sundaresan, A.,** Russomano, T., dos Santos, M., Bosquillon, C., Falcao, F., Marriot, C., Forbes, B., "Modeling the Effects of Microgravity on the Permeability of Air-Interface Respiratory Epithelial Cell Layers," **Advances in Space Research**, 46(6), pp 712-718, 2010.
23. Martinelli, L.K., Russomano, T., Santos, M.A., Falcão, F.P., Bauer, M.E., Machado, A., and **Sundaresan, A**. "Effect of microgravity on immune cell viability and proliferation-simulation using a 3D clinostat. IEEE Engineering in Biology and Medicine, 28(4), 85-90, 2009.
24. **Sundaresan, A**. and Pellis, N.R., "Cellular and Genetic Adaptation in Low Gravity Environments Gene Regulation in modeled microgravity," Ann of NY Acad. Sci., 1161, pg135-146, (2009).
25. **Sundaresan, A**., Kulkarni, A.D., Yamauchi, K., and Pellis, N.R. "The Role of Nucleotides in Augmentation of Lymphocyte Locomotion: Adaptational Countermeasure Development in Microgravity Analog Environments," Microg. Sci. Tech. (Feb) 18:247-249, 2006.
26. Ckaur, V., Sivakumar, S., and **Sundaresan, A**. "Hypoxic Damage to the Periventricular White Matter in Neonatal Brain: Role of Vascular Endothelial Growth Factor, Nitric Oxide and Excitotoxicity," Journal of Neurochemistry, 98:4 1200, 2006.
27. **Sundaresan, A**. and Pellis, N.R., "Human Adaptation Genetic Response Suites: Towards Formulating New Interventions and Countermeasures for Spaceflight," **J. Grav. Physiol**. 12(1):P229-P232, 2005.

28. Sundaresan, A., Kulkarni, A.D., Yamauchi, K. and Pellis, N.R. "Signaling in Human and Murine Lymphocytes in Microgravity: Parallels and contrasts", Amer Gravit and Space Biol Bull, Feb 2005.
29. Sundaresan, A., Kulkarni, A.D., Yamauchi, K. and Pellis, N.R. "Signaling in Human and Murine Lymphocytes in Microgravity: Parallels and contrasts", Amer Gravit and Space Biol Bull, Feb 2005.
30. Sundaresan, A., Clarke, M.S.F., and Pellis, N.R., "NASA technical disclosure document: titled MSC#24000 titled "Development and Characterization of a three dimensional model of human bone. March 2005.
31. Sundaresan, A., Risin, D., and Pellis, N.R. "Modeled Microgravity-Induced Protein Kinase C Isoform Expression in Human Lymphocytes." J Appl Physiol. June 2004.
32. Kulkarni, A.D., Yamauchi, K., Taga, M., Savary, C., Sundaresan, A., Pellis, N.R. "Space Immunology and Countermeasures Research in Modeled Microgravity." Aerospace Sciences JournaI. 2002-0325: 1-6, 2002.
33. Yamauchi, K., Sundaresan, A., Hales, N.W., Yamamoto, Y., Pellis, N.R., Kulkarni, A.D., "Nutritional Countermeasure to Obviate Immune Dysfunction in Microgravity. Japanese." Jrl of Aerospace research, p2003-2004, Dec, 2002.
34. Sundaresan, A., Yamauchi, K., Kulkarni, A.D., Pellis, N.R., "Microgravity and Modeled Microgravity Effects on Lymphocyte Signal Transduction: Comparisons between Human and Mouse Lymphocyte Signaling". Japanese Jrl of Aerospace Research, p2001-2002, Dec, 2002.
35. Hales, N.W., Yamauchi, K., Martinez, A., Sundaresan, A., Pellis, N.R., Kulkarni, A.D., "A Countermeasure to Ameliorate Immune Dysfunction in In Vitro Simulated Microgravity Environment: Role of cellular nucleotide nutrition." In Vitro Biol 38(4):213-217, 2002.
36. Kulkarni, A.D., Yamauchi, K., Hales, M.W., Sundaresan, A., Andrassy, R.J., Pellis, N.R. "Nutrition Beyond Nutrition: Plausibility of Immunotrophic Nutrition for Space Travel." Clinical Nutrition. 21(3):231-238, June 2002.
37. Sundaresan, A, Risin, D, and Pellis, N.R. "Loss of Signal Transduction and Inhibition of Lymphocyte Locomotion in a Ground Based Model of Microgravity". In vitro cell and dev biol 38(2), 118-122 2002.
38. Sundaresan, A., Risin, D, and Pellis, N.R. "Locomotion Inhibition in Lymphocytes Involves Differential Expression of PKC Isoforms. Scandinavian J. of Immunology. 54 Supp. 1, pg 20, 2001.
39. Sundaresan, A., Claypool, K., Mehta, K., Lopez-Berestein, G., Ford, R.J. "Retinoid Mediated Inhibition and Apoptosis in NHL-B Lymphomas". Cell Growth and Differentiation, 1997, 8, 1071-1082.
40. Manshouri, T., Huang S, Sundaresan, A., Chakravarthy, M., Chakrabarthy, S. and Albitar, M. "Development of a Partial Fibronectin Knockout Transgenic Mouse Model". Transgenics, 1996, Vol. 01, p 1-7.

(c) Reviews of candidate's scholarly/creative works
In the paper entitled, " Modeled microgravity-induced protein kinase C isoform expression in human lymphocytes," J.Appl. Physiol. 96: 2028-2023, 2004, Dr. Sundaresan (lead author) and her collaborators have described a very careful

investigation to assess the expression of key calcium-dependent and independent isoforms under simulated microgravity conditions. They have documented the protein kinase C isoform profiles in human lymhocytes and have made the important observation that the peculiar isoform profiles noted are likely due to upstream changes induced by simulated microgravity environment. This observation has motivated several other studies by various research groups.

In the paper entitled, " Effect of Microgravity on immune cell viability and proliferation," IEEE Engineering in Medicine and BiologyMagazine,85-90, July/August 2009, with her collaborators, she has demonstrated that the clinostat disorients the immunological cells and simulate microgravity conditions in the laboratory. The study has also revealed that in addition to in vivo responses to spaceflight conditions, there may be a direct effect of microgravity on immune cell viability and proliferation. The findings have shown that the proliferative response to mitogen simulation decreases in 48 h of clinorotation, which might impair the immune system of the person subjected microgravity.

The last paper is entitled, " Cellular and Genetic Adaptation in Low Gravity Environments," Interdisiciplinary Transport Phenomena V: Ann. N.Y. Acad. Sci. 1-12, (2009), Dr. Sundaresan (lead author) and her collaborator have described genetic response suites in human lymphocytes under simulated microgravity conditions. Different groups of genes related to the immune response, cardiovascular system, and stress response have been analyzed. Many molecules related to T-call activation and second messengers, located both in the cell membrane and cytoplasm have been shown to be significantly altered under simulated microgravity conditions. The wealth of information documented by this study is very helpful to identify and explore physiological adaptation to microgravity conditions.

TBA

(d) Abstracts and Scholarly Papers

1. Sundaresan et al: tissue and molecular impact of modeled micro gravity on bone remodeling and analysis of tissue engineering on bone tissue.Date of presentation: January 22nd, 2018. Abstract Number: 1813
2. Sundaresan et al: Analysis and Characterization of Bone tissue using modeled microgravity analogues as Tissue Engineering Models. ISGP & ESA Life Sciences Meeting (18 – 22nd June 2018) Noordwijk, The Netherlands. Paper Number: 137.
3. Two presentations from ELGRA 2017
4. ASGSR 2016,17
5. Vivek Mann, Thomas J. Corydona Lasse Slumstrup, Sascha Kopp,Jayashree Sahana, Anne Louise Askou, Nils E. Magnusson David Echegoyen, Toke Bek Stefan Riwaldta, Johann Bauerf, Manfred Infanger, Daniela Grimm and Alamelu Sundaresan.Reduced Expression of Cytoskeletal and Extracellular Matrix Genes in Human Adult Retinal Pigment Epithelium Cells Exposed to

Simulated Microgravity. Presentation in the 2017 NASA Human Research Program Investigators' Workshop, Galveston (HRP IWS 2017).

6. Alamelu Sundaresan, Vivek Mann, Elvedina Mansoor, Diana Risin, Okoro Elvis, and Loretta olamigoke. Cellular and Genetic Adaptations Involved in Immune Related Functional Responses in Resting and Activated Human T-Cells in Response to Modeled Microgravity. Oral presentation (Immune session) at the ESA/ISGP joint Life Sciences Conference, 6/8/16 in Toulouse, France.
7. A.Sundaresan1, L.Olamigoke1, V.Mann1, E.Mansoor1 and E.Okoro1 .Immune Dysregulation And Countermeasures In Physiologically Stressed Environments. Presentation in The 2016 NASA Human Research Program Investigators' Workshop, Galveston (HRP IWS 2016).
8. http://www.wisetexas.org/blog/Feature-Women in STEM excellence-Dr.Sundaresan
9. A.Sundaresan,K.Marriott, J.Mao, S.Bhuiyan,, R.Wilkins, B.Gersey, R.Gaza, W.Williams and P. Denkins. Immune Modulation n Normal Human Lymphocytes and radiation Assessment for the UR-1 project Cells on the ISS. The 2015 NASA Human Research Program Investigators' Workshop (HRP IWS 2014). Galveston, 2015.
10. Alamelu Sundaresan et al, Immune modulation and radiation measurements for ISS/Spacex-3 flight radiation experiment in support of the UR-1 project in normal human lymphocytes.Oral presentation at the ISS R and D conference, July 7, 2015, Boston, MA.
11. Loretta Olamigoke, Vivek Mann, Elvedina Mansoor, Ivory Ellis, Elvis Okoro, Wakame K. Anil Kulkarni, Marie-Francoise Doursout and Alamelu Sundaresan. AHCC activates human lymphocytes via phenotypic, genotypic and differentiation changes to an adherent cell type. A possible novel mechanism of T cell activation. #0140; The 2015 NASA Human Research Program Investigators' Workshop (HRP IWS 2015). Galveston, 2015.
12. Alamelu Sundaresan et al: Immune Modulation and Apoptosis Induction in Normal Human Lymphocytes and Lymphoblastoid Cancer Cells on ISS.Association of Space and gravitational research Symposium, Pasadena, CA, 2014.
13. Doursout MF, Wakame K; Sundaresan A; and Kulkarni A: AHCC modulates hypertension via the nitric oxide signaling pathway in rats. #32; The 22nd International Congress on Nutrition and Integrative Medicine (ICNIM) Sapporo Japan, July 2014.
14. Sundaresan A. Olamigoke l, Mann V, Mansoor E, Ellis I, Okoro E, Wakame K, Doursout MF and Kulkarni A: AHCC triggers immune proliferation and activation of human lymphocytes via targeted phenotype and genotype transformation. #31; The 22nd International Congress on Nutrition and Integrative Medicine (ICNIM) Sapporo Japan, July 2014.
15. Doursout MF; Segal G, Ahn S; Sundar D; Liang YY; Wakame K; Sundaresan A and Kulkarni A. Active Hexose Correlated Compound Moderates LPS-Induced Gut Injury in Rats. Exp. Bio. J: LB 576, 2014

16. A.Sundaresan, K.Marriott, J.Mao, S.Bhuiyan, Malik Hopkins, R.Wilkins, B.Gersey, R.Gaza, W.Williams and P. Denkins. Benzofuran derivatives differentially modulate oxidative stress and increase cellular homeostasis in response to radiation and modeled microgravity stresses. The 2014 NASA Human Research Program Investigators' Workshop (HRP IWS 2014). Galveston, 2014.
17. A.Sundaresan. Immunocyte signalling in microgravity. Topical Team in Immunology. ESA oral presentation. Germany, Jan 16, 2014 (via WebEx).
18. A.Sundaresan et al: The effects of benzofuran 2-carboxylic acid derivatives as countermeasures for immunosuppression. Oral presentation at the European Low gravity research association conference, Rome, September 2013.
19. Doursout MF, Liang YY, Sundaresan Alamelu, S.Devakottai, H.Fujii and Kulkarni Anil. Effects of AHCC in an Animal Model of Inflammation-Induced Oxidative Stress. The 21th International Congress on Nutrition and Integrative Medicine (ICNIM) in Sapporo Japan, July 26th, 2013.
20. A.Sundaresan: Effects of AHCC mushroom extract in human lymphocytes: 21st ICNIM conference, Sapporo, Japan, July 2013.
21. A.Sundaresan. Signalling mechanisms of bone loss in weightlessness: Plenary Speaker, The evidence thus far: 6th annual Scandinavian Society of Biomaterials, Hafjell, Norway, March 16, 2013.
22. A.Sundaresan. Load in Osteoblast function. University of Oslo Priority lecture, March 12, 2013.
23. A.Sundaresan,, K.Marriott, J.Mao, S.Bhuiyan, J. Madry- Taylor and P.Denkins. The effects of benzofuran 2-carboxylic acid derivatives as countermeasures to counteract immune suppression. NASA Human Research Program, Investigator's Working Group meeting (IWG) Feb 2013.
24. Alamelu Sundaresan, Anil Kulkarni and Koji Wakame. Effects of AHCC (Active Hexose Correlated compound in the liver. Amino Up Company, functional foods conference, Sapporo, Japan, July 2012.
25. Alamelu Sundaresan, Sundar Devakottai, and Janne E. Reseland: Effects of load on normal human osteoblasts (NHO) at different stages of differentiation. Presentation at the International Space and Gravitational Physiology Conference, Aberdeen, June 2012.
26. Sundaresan. A, Immune suppression in microgravity. Invited Speaker, Topical team in Immunology, European Space Agency, March 27-30,2012, Munich, Germany.
27. Alamelu Sundaresan, Sukesh Aghara , Terrell Gibson and Indi Siripirasan: Space radiation and osteoclastogenesis:The effects of radiation and microgravity on bone resorption: Presentation at the International radiation protection conference, Glasgow 2012.
28. Sundaresan. A, Gibson T, Cao T, Clemens C and James J: Cellular effects of lunar simulant mineral dust on Human Airway Epithelial Cells: Proceedings of ITP2011, Interdisciplinary Transport Phenomena VII. Fluid, Thermal, Biological, Materials and Space Sciences, September 19-23, 2011, Dresden, Germany

29. A.Sundaresan, Duane.L.Pierson, Todd Schlegel, Satish Mehta and Blaise Carabello: Placental growth factor in coronary artery disease and stress. Aerospace Medical Association Conference, Anchorage, April 2011.
30. Sundaresan, A., S. Mehta, B. A. Carabello, T. Schlegel, T. Russomano, M. Santos, C. Kaur, J. Reseland, C. M. Ott, N.R Pellis and D. Pierson, "Placental Growth Factor (PlGf) as a Biosignature of Inflammation in Microgravity-In Coronary Artery Disease and Stress," Accepted for Oral presentation at the International Academy of Aerospace Medicine Congress, Singapore, October 2010.
31. Sundaresan, A., "Tissue Like Assemblies in Analog Microgravity," Scandinavian Society of Biomaterials, Hafjell, Norway, April 12-16, 2010.
32. Sundaresan, A., "Space Toxicology for the Future, PlGf, a Possible Predictor for Cardiac Dysfunction in Microgravity," The European Low Gravity Research Association Conference and Interdisciplinary Transport Phenomena Conference, September and October 2009.
33. Sundaresan, A., "A Cardiovascular Predictor of Microgravity Exposure," The Cardiovascular Session of the Human Research Program's Investigator's Workshop, February 2-4, 2009.
34. Sundaresan, A., "Genetic Adaptation in Microgravity," University of Loughborough, UK, Dec 13-18, 2008.
35. Sundaresan, A., "Immune Suppression in Microgravity," IUPCRS Microgravity Laboratory Meeting, Porto Alegre, Nov 22-27, 2008.
36. Sundaresan, A., "Development and Validation of a 3D Clinostat for the Study of Immune Cells Symposium," The International Gravitational and Space Physiology/ESA/ELGRA Meeting in Angers, France, June 18-21, 2008. .
37. Sundaresan, A., and Ford, R. "Target Pathways for Retinoids in Aggressive B Cell Lymphomas: Cell Cycle Inhibition and Apoptosis" The American Society of Hematology 39th Annual Meeting, San Diego, California, December 5-9, 1997.
38. Sundaresan, A., "Three Dimension Bone Tissue Models," Department of Biomaterials, University of Oslo, May 22-May 24, 2008.
39. Sundaresan, A., "Biosignatures in Microgravity," NASA Investigators Workshop in South Shore Harbour, League City, TX, Feb4-6, 2008.
40. Sundaresan, A.,"Radiation Effects of Microgravity" The Technical University of Delft, Netherlands, Dec 7-9, 2007.
41. Sundaresan, A., "Three Dimensional Clinostats," The ESA Conference on Microgravity Analogs, Noordwijk, Netherlands, December 9-12, 2007.
42. Sundaresan, A., "Cellular and Genetic Adaptation In Low Gravity Environments," The Bio Transport Phenomena, International Conference, Bansko, Bulgaria, Oct 14-17, 2007.
43. Sundaresan, A., A. Ponomarev and F. Cuccinottta, "Three Dimensional Model of Tissue and Heavy Ion Effects," The NASA International Astronautical Congress, Hyderabad, India, Sept 23-28, 2007.
44. Sundaresan, A., James DuMond, Kamaleshwar Singh, N.R. Pellis, "Genetic Signatures During Physiological Adaptation," European Low Gravity Research Association, Florence, Italy September 4-7, 2007.

45. Sundaresan, A.,"Regulation of Raf/MEK Kinases in Lymphocytes in Microgravity-Responses to Cellular Stress," The "Young Life Scientist" Biochemical Society Conference in Glasgow, UK, July 2007.
46. Sundaresan, A. and N.R. Pellis, "Gene Expression in Human Osteoblasts and Osteoclasts in a Three Dimensional Tissue Culture Model," The European Calcified Tissue International Conference, Copenhagen, May 2007.
47. Sundaresan, A., T. Russomano, N. R. Pellis, "Apoptosis and WNT Signaling During Unloaded Conditions in Human Bone Cells," The Experiments in Space and Beyond Symposium by ESA, April 12, 2007.
48. Sundaresan, A., A. Ponomarev, and F. Cuccinottta, "Spatial Pattern of Cell Damage in Tissue From Heavy Ions," The International Radiation Conference in Dallas, March 2007.
49. Sundaresan, A., A.D. Kulkarni, K. Yamauchi, and N.R. Pellis, "Cellular and Molecular Basis For Nutritional Countermeasures in the Microgravity Enviroment," The International Astronautical Congress, Valencia, Spain, October 2006.
50. Sundaresan, A., Kamleshwar Singh, Neal R. Pellis, and James DuMond, Jr., "Signal Transduction Targets of Modeled Microgravity," Society of In Vitro Biology Convention, 2006.
51. Sundaresan, A. and S. L. Bishop, "A Comparison of Objective and Subjective Stress in Homogeneous Male and Female Teams in a Mars Simulation," The COSPAR Congress, Beijing, July 2006.
52. Sundaresan, A., "Cell and Tissue Injury In Analog Microgravity," The Federation of European Biochemical Societies Conference, Istanbul, Turkey, June 2006
53. Sundaresan, A., Dharmarajan, and N. R. Pellis, "Apoptosis and WNT Signaling During Unloaded Conditions In Human Bone Cells," The European Calcified Tissues Society Conference, Prague, Czech Republic, May 2006.
54. Sundaresan, A., A.D.Kulkarni, K.Yamauchi and N.R.Pellis, "Biomarkers of Cell and Tissue Injury in Analog Microgravity," The International Astronautical Congress, Oct 2005 in Fukuoka, Japan.
55. Sundaresan, A., Anil D. Kulkarni, Keiko Yamauchi and Neal R. Pellis, "The Role of Nucleotides in Augmentation of Lymphocyte Locomotion; Adaptational Countermeasure Development in Microgravity Analog Environments," The European Low Gravity Research Association (ELGRA) Biennial Meeting and General Assembly, Sep 23-26, 2005, Santorini, Greece.
56. Sundaresan, A., and N. R. Pellis, "The Role of the Upstream T Cell Protein Tyrosine Kinase ZAP 70 in Analog Microgravity," 30th Federation of the European Biochemical Society (FEBS) Congress, Budapest, Hungary, July 2-7, 2005.
57. Sundaresan, A., "Microgravity and Modeled Microgravity Effects on Lymphocyte Signal Transduction: Comparisons between Human and Mouse Lymphocyte Signaling. July 1, 2005, LBMCC, Luxembourg.
58. Sundaresan, A., and N. R. Pellis. "Stress and Pathogen Response Gene Expression in Modeled Microgravity," 15th IAA Humans in Space Symposium, Graz, Austria, May 22-26, 2005.

59. Sundaresan, A., and N. R. Pellis, "Stress and Pathogen Response Gene Expression in Modeled Microgravity," 2005 NASA Cell Science Meeting, Galveston, TX, February 23-25, 2005.

(e) Artistic Exhibits (group, invited, one-person) and Performances (directed, written, performed)
Dr.Sundaresan is lead actress in the theatre group"Meenakshi Theatres "of Houston. This amateur theatre group puts forth one production in the Tamil language every year to an audience of about 300-500 theatre enthusiasts in Houston. They also produce English plays for charity fundraisers. Dr. Sundaresan writes scripts for these and acts in them as well. A list of plays with newspaper article references is provided below.
2005-April-
2006-Two plays, Houston, San Antonio and Dallas
2007-Vinodaya Chittham
2008-Three plays-
2009-Thani Kudithanam
2010-Three Idiots
2011-Two plays
2012-Nadanthathu enna, Oru naal nayagan
2013-Panchathanthiram
2014-Idhu nam naadu
2015-Mama Vijayam, Perumale
2016-DharmaYuddham,
2017- Ramanuja, Payanam, Mastani O mastani
2018- Oonjal, Vivahamaalai.com
Female lead in all plays. Newspaper clippings attached.

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

2) Other achievements in the area of scholarship

PATENTS:

1) Sundaresan, A., Clarke, S.F., and Pellis, N.R. "Production of Bone Morphogenic Proteins (BMPS) Using a Novel Tissue Culture Platform," Patent application number: 20100227358
2) Sundaresan, A., Clark, S.F., and Pellis, N.R., "Mineralized three-dimensional bone constructs," Patent application number: 200900061479
3) Alamelu Sundaresan, Sugarland, Tex. (US); Mark S. F. Clarke, Houston, Tex. (US); and Mark Brinker, Houston, Tex. (US). Development of a human colloidal bone graft material. US 8,506,982 B2;August 2013.

W) Teaching (classroom, graduate and professional):

1) Load and level by year since coming to Texas Southern University
2) 2005-2006 BioL 245,344,401,795
3) 2006-2007 BioL 135,244,344,401, 861
4) 2007-2008 NASA Administrators Fellow (Release Time)
5) 2008-2009 BioL 135, 136, 245, 447, 401, 861

6) 2009-2010 BioL 135, 136, 245, 447, 401, 861
7) 2010- Present BioL 135, 245, 401, 861
8) Other contributions to the area of teaching

X) Graduate contributions—Theses and Dissertations: Names of students, titles of project, and dates.

THESES AND DISSERTATIONS: Past

1. Anthony, Kevin, (Committee Member) Characterization of Synthetic DNA Bar Codes in Saccharomyces Cervisiae Gene- Deletion Strains, Texas Southern University, 2007.
2. Ford, Donielle, (Advisor: Alamelu Sundaresan) The Effect of Natural Compounds on Human Lymphocytes in a Lymphocyte Function Deficit Model to Study Cell Growth and Regulation in Arthritis and Lupus, Texas Southern University, 2009.
3. Committee Members Service
   a. Shen An Hwang- University of Texas 2002-2004, Doctoral
   b. Tram Cao- Texas Southern University, Masters
   c. Terrell Gibson, Texas Southern University, Doctoral

MAJOR ADVISOR FOR THE FOLLOWING STUDENTS:

1.Terrell Gibson-PH.D., E-Tox:awarded May 2012
2.T.Cao-MS Biol-Awarded May 2012
3.Krystal Watson-MS Biol-Awarded May 2012
Graduate Students-2015
1.Elvedina Mansoor-Ph.D, May 2017.
2.Elvis Okoro-M.S, Defended March 2015, Ph.D-expected May 2019
3.Ivory Ellis-M.S, Defended March 2015
4.Vivek Mann-Ph.D, defended May 2017
5.Jordan Pope-M.S, Defended August 2015.
6.Loretta Olamigoke-Ph.D, May 2017
7.Xiao Ma: Phd. University of Arhus, awarded November 2014(External Examiner, A.Sundaresan)
8.Hazwani Shuhaimi Ph.D.,Chemical Engg, University of Loughborough, UK, Awarded June 2015 (External Examiner, A.Sundaresan)
9. Hanna Tianen: Ph.D: University of Oslo, Awarded may 2014, completed 2015
10.Sigrid Haugen-University of Oslo-Completed 2015
11. Sonja Brungs-German Aersospace Center-Postdoctoral Fellow-Completed October 2016
12. Maitreyi Chaganti-M.S, expected May 2019

Committee member:
1.Edidong Obot: MS Etox-Defense, March 2013.-Approved.
2.Naga Naidu:Ph.D. E tox-Defended October 22, 2013. Approved.
3.Trey Hall III: Ph.D. E tox-Approved, Spring 2015.
TSU NSTI and Graduate and Undergraduate mentees:

Post Docs:2013-2018
1.Hanna Tianen-Oslo and TSU
2.Sigrid Haugen-Oslo and TSU
3.Christina Clemens-TSU
4.Sonja Brungs-Germany and tSU
5.Pia Sunde-Oslo and TSU
Undergraduate Students
1.NSF (8)
2. NSTI (5),UR-1 project (10)
3.Biol 401(2)
Past Under grad mentees(2010-2011):
1.Kyle Williams
2. Johnny Flores:
3.Nia Binion
4. Shonna Gaskin
5. Tommie Johnson
6. Bhupinder Singh
7.Kenny Robinson
8.Yametria Lewis
9. Brittney Hawkins
Other HBCU NSTI and Undergraduate mentees:
1.Demetrius Boyson-Tougaloo College
2.Deidra Huff-Jarvis Christian Collge.

Space, Science and Engineering Internship Program, ARMY AEOP Summer 2006-Present

a. Alondra Nervis
b. Mia Lander
c. Jamail Plumber
d. CaDarius Booker
e. James Maull
f. Elise Nguyen
g. Miracle Cooke
h. Rachel Cockrell
i. Ria Devakottai
j. Justin Lawrence
k. Laura Peters

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

UNIVERSITY SERVICE:

Department of Biology Standing Committees (2005-Present)
Pre-Medicine/Pre-Dentistry/Pre-Veterinary/Pre-Optometry
Budget, Facilities and Planning Committee
Scholarships and Fellowships Committee

College of Science and Technology Committees

Staff Grievance Committee	(2005- Present)
Scholarships Committee	(2009- Present)
Homecoming Committee	(2005- 2006, 2009-Present)
Strategic Planning Sub-Committee 1, 3 and 4	(2010-2011)
COST Events Fundraising and Public Service Committee	(2010-2011)
COST Annual Report	(Summer 2010)
COST News Letter Committee	(2010-2011)

University Committees

University Library Committee	(2010-2011)

Committees:

Department of Biology:

Faculty search committee chair(3), Graduate Committee chair and curriculum committee-present.

COST: Scholarships and awards committee, Staff Grievance, Research Committee, Events committee,

University: Graduate Council, Pharmacy Dean Search Committees (2012)

COMMUNITY SERVICE:

Jewish Community Center (1998-Present)
Fundraisers for Children's Education and Orphanages, National Disasters

Meenakshi Theaters (1999-Present)
Fundraisers for Children's Education and Orphanages, National Disasters

Ieducate USA active contributor for Elementary School Outreach.Blackshear and Crockett Elementary Schools since 2012 (Reached 150 students per year).

CONFERENCES ORGANIZED:

Investigator's working group meetings for NASA Cell Science program from 1998-2009.

TSU-NASA (NSTI) conference, October 8-11, 2012, Sterling Student Life Center, Houston, TX, ISS quarterly , September 2014).

NASA ISS UR-1 Quarterly meetings hosted at TSU-September 2013, 2014.