Jade Q. Clement

Associate Professor (Tenured)

Department of Chemistry

EDUCATION

Ph.D. in Biomedical Sciences (1998), Graduate School of Biomedical Science, University of Texas at Houston. **Dissertation Title:** Stability and Potential Application of Spliced Nuclear Pre-mRNA Introns

M.S. in Epidemiology and Microbiology (1989), Chinese Academy of Preventive Medicine, Beijing, China.

Medical Degree (1983) Shandong Medical University, Jinan, China, Public Health (Officially evaluated by Global Credential Evaluators as equivalent to **MD** in the U.S., 1997)

ACADEMIC APPOINTMENTS

Associate Professor, Department of Chemistry, Texas Southern University, 2007-present
Faculty Fellow, Freeman Honors College, Texas Southern University, 2011-present
Student Development Director, RCMI Program, Texas Southern University, 2004-2010
Assistant Professor, Department of Chemistry, Texas Southern University, 2001-2007
Research Scientist, MD Anderson Cancer Center, 2001
Post-Doctoral Fellow, MD Anderson Cancer Center, 1998-2000
Adjunct Professor, Houston Community College, 2000-2001
Pre-doctoral Fellow, MD Anderson Cancer Center, 1994-1998
Graduate Research Assistant, Oregon Health Sciences University, 1991-1994
Associate Research Professor, Chinese Academy of Preventive Medicine, Beijing, China, 1988-1990
Assistant Research Professor, Chinese Academy of Preventive Medicine, Beijing, China, 1983-1988
Intern, Qianfoshan Hospital, Jinan, China, 1982-1983

Selected Peer-Reviewed Scholarly Publications

1. Abdelmoaty. H, Hammond, TG, Wilson, BL, Birdsall, HH, **Clement, JQ** (2015) Identification of Putative Major Space Genes Using Genome-Wide Literature Data, *Biotechnology,* D. Ekinci Ed., InTech, ISBN 978-953-51-2040-7

2. **Clement, JQ** (2012) Gene Expression Microarrays in Microgravity Research: Toward the Identification of Major Space Genes, *Biotechnology/Book 2,* E.C. Agbo, Ed., InTech, ISBN 979-953-307-671-2

3. **Clement, JQ** (2010) Microarray Profiling of Genome-Wide Expression Regulation in Response to Environmental Exposures, *A Practical Guide to Bioinformatics Analysis,* G.P.C. Fung, Ed., Iconcept Press, Brisbane, pp 23-40. ISBN: 978-0-9807330-2-0

4. Zhang Y, **Clement JQ,** Gridley DS, Rodhe, L, Wu H (2009) Protein expression profile changes in human fibroblasts induced by low dose energetic protons. *Advances in Space Research*. 44(12): 1450-1456.

5. **Clement JQ** and Yokota H. (2008) Genomics in Space Life Science. *Genomics, Proteomics and Bioinformatics.* 6(1):1-3.

6. **Clement JQ,** Lacy SM, Wilson BL (2008) Gene Expression Profiling of Human Epidermal Keratinocytes in Simulated Microgravity and Recovery Conditions. *Genomics, Proteomics and Bioinformatics* 6(1):8-28

7. **Clement JQ,** Lacy SM, Wilson BL. (2007) Genome-wide gene expression profiling of microgravity effect on human liver cells. *Journal of Gravitational Physiology*. 14(1):P121-122

8. Emami K, Hada M, Lacy S, **Clement J**, Rusek FA, Cucinotta FA, Wu H. (2007) Apoptosis and micronuclei induction in human epithelial cells exposed to energetic carbon ions in the Bragg peak region**.** *Advances in Space Research* 40:501-505.

9. **Clement JQ**, Maiti, S, Wilkinson MF (2001) Localization and stability of introns spliced from the Pem homeobox gene. *Journal of Biological Chemistry*. 276(20): 16919-30.

10. **Clement JQ**, Wilkinson MF (2000) Rapid induction of nuclear transcripts and inhibition of intron decay in response to polymerase II inhibitor DRB. *Journal of Molecular Biology*. 299(5):1179-91.

11. **Clement JQ,** Qian L, Kaplinsky N, Wilkison MF (1999) The stability and fate of a spliced intron from vertebrate cells. *RNA*. 5(2):206-20.

12. Misteli T, Caceres JF, **Clement JQ**, Krainer AR, Wilkinson MF, Spector DL (1998) Serine phosphorylation of SR proteins is required for their recruitment to sites of transcription in vivo. *Journal of Cell Biology*. 143(2):297-307.

Internal Scientific Publication with Undergraduate Students:

1. Coulibaly, M and Clement JQ (2013) A study of the combined effects of microgravity and single wall carbon nanotubes, *Proceedings of Summer Undergraduate Research Program,* 29-33.

2. Mbonu, R and Clement JQ (2013) A study of the combined effect of microgravity and bisphenol A on human liver cells, *Proceedings of Summer Undergraduate Research Program,* 47-51.

Recent Peer-Reviewed Scholarly Presentations

1. **Clement JQ**, Lacy, SM, Wilson BL (2008) Genome-wide Expression Profiling of Human Keratinocytes in Microgravity Conditions, NOBCChE 2008 Southwest Regional Meeting, Houston, Texas

2. **Clement JQ,** Lacy SM, Vinces, D, Wilson BL, Wu H (2008) Simulated Microgravity Effect on the Expression Profile of AG1522 Fibroblasts, NOBCChE 2008 Southwest Regional Meeting, Houston, Texas

3. **Clement JQ,** Lacy SM, Wu H, Wilson BL (2008) Gene Expression Profiling of Human Epidermal Fibroblasts in Simulated Microgravity, 37th COSPAR Assembly, Montreal, Canada

4. Zhang Y, **Clement JQ**, Gridley D, Rodhe L, Wu H (2008) Comparison of protein expression profile changes in human fibroblasts induced by low doses of gamma rays and energetic protons, 37th COSPAR Assembly, Montreal, Canada

5. **Clement JQ,** Lacy SM, Wilson BL (2007) Genome-wide gene expression profiling of microgravity effect on human liver cells. 28th Annual International Gravitational Physiology Meeting, San Antonio, Texas.

6. **Clement JQ** (2006) High Density Microarray Profiling and Bioinformatics Analysis of Human Liver Cells Under 2D and 3D Culture Systems, Metabolic Markers Conference, Orlando, Florida

7. **Clement JQ** (2006) Global Gene Expression Profiling of Single Walled Carbon Nanotubes in Mammalian Cells, Southwest Regional Meeting of the American Chemical Society, Houston, Texas.

8. **Clement JQ** (2006) Toxicogenomics of Single Walled Carbon Nanotubes, Experimental Biology 2006, San Francisco, California, *FASEB Journal* 20(4): A67

9. **Clement JQ** (2005) Toxicogenomic Analysis of Single Walled Carbon Nanotubes (Biomaterials and Devices Research Thrust) Texas Institute for Intelligent Bio-Nano Materials and Structures for Aerospace Vehicles 3rd Annual Review and Conference, College Station, Texas

10. **Clement JQ**, Ananthaswamy HN (2005) Identification of Targeted Genes for p53 Growth Arrest. 20th Anniversary RCMI Symposium, Houston, Texas

11. **Clement JQ** (2005) Towards Identification of Major Space Genes. NASA Cell Science Conference 2005, Galveston, Texas

12. **Clement JQ**, Ananthaswamy HN (2003) A genome-wide search for critical determinants of p53 tumor suppressor protein mediated growth arrest. Experimental Biology 2003, San Diego, California

13. **Clement JQ** (2003) Biological and toxicological evaluation of bio-nano materials. Texas Institute for Intelligent Bio-Nano Materials and Structures for Aerospace Vehicles 1st Annual Review and Conference. Houston, Texas

14. **Clement JQ**, Ananthaswamy HN (2002) cDNA array analysis of genes regulated by wild-type and mutant p53 protein. RCMI Spring Symposium, Jackson State University, Jackson, Mississippi.

15. **Clement JQ,** Wilkinson MF (2002) The effect of nonsense codons on pre-mRNA splicing and mRNA stability. Experimental Biology 2002, New Orleans, Louisiana *FASEB Journal*, 16(4):A165.

Funded Grants

Project: Molecular Toxicology of Bisphenol A
Role: PI
Agency: TSU – Seed Grant
Duration: 12/1/2010-1/11/2012
Direct Support: $10,000

Project: Graduate Student Education and Development
Role: Co-PI
Agency: NIH/RCMI
Duration: 09/2004-08/2010
Direct Support Level: $733,000
Grant Number: RR03045-12A1

Project: Identification of Major Space Genes
Role: Co-PI

Agency: NASA/URC-TSU
Duration: 06/2003-04/2009
Direct Support: $670,000
Grant Number: NCC9-165

Project: Cellular and Molecular Toxicological Evaluation of Bio-Nano Materials
Agency: NASA Texas Institute for Intelligent Bio-Nano Materials and Structures for Aerospace Vehicles (TiiMS)
Role: Co-PI
Duration: 09/2002-08/2007
Direct Support: $50,000

Academic Service

Professional Service:

- Editorial Board, *Genomics, Proteomics, and Bioinformatics*, 2005-Present
- Associate Editor, *Journal of Chemistry, Biochemistry, and Molecular Biology*, 2010-Present
- Guest Editor, Genomics in Space Life Sciences special issue, *Genomics, Proteomics, and Bioinformatics,* 2008
- Awards Committee for Research at Undergraduate Institutions, American Chemical Society, 2004-2007
- EPA/NSF/NIOSH Review Panel, Impacts of Nanomaterials, 2005, 2006
- 20th Anniversary RCMI Symposium Organizing Committee, 2005
- Scientific Advisory Board, 2003-Present
- Reviewer
    - *BioMed Research International*
    - *Current Biotechnology*
    - *Cell Communication and Signaling*
    - *Journal of Applied Physiology*
    - *Genomics, Proteomics, and Bioinformatics*
    - *Biohealthcare Publishing (Oxford)*

University Level Committees

- Biosafety Committee, 2010-present
- Radiation Safety Committee 2003-Present
- Chair, Recombinant DNA Committee, 2001-2010
- Institutional Compliance Committee, 2001-2010
- Animal Care and Safety Committee, 2001-2006
- University Research Council, 2001-2002
- Research Coordinator, College of Science and Technology, 2001-2002

College Level Committees

- Faculty Evaluation Committee, College of Science and Technology, 2014-
- Research Committee, College of Science and Technology, 2013-present

- Newsletter Committee, College of Science and Technology, 2011-2013
- Webpage Committee, College of Science and Technology, 2009-2013
- Pharmaceutical Sciences MS/PhD Program Operating Committee, College of Pharmacy and Health Sciences 2004-2006
- Pharmaceutical Sciences MS/PhD Program Curriculum Committee, College of Pharmacy and Health Sciences 2004-2006
- RCMI Graduate Research Assistant Selection Committee, 2004-2010

Program and Department Level Committees

- Chemistry Department Minor in Forensic Science Curriculum Committee, 2012-present
- Environmental Science and Technology Faculty Search Committee, 2012
- Chemistry Faculty Search Committee, 2012-2013
- Rank, Tenure, and Promotion Committee, Department of Chemistry, 2007-2008
- COPHS Faculty Search Committee, 2004

PROFESSIONAL AFFILIATIONS

- American Chemical Society
- American Society for Biochemistry and Molecular Biology
- Committee on Space Research (COSPAR), Associate
- International Society for Gravitational Physiology
- Bioinformatics Organization

HONORS/AWARDS/DISINCTIONS

- Who's Who Among American Teachers, 2007
- International Health Professional of the Year, 2005
- Predoctoral Fellow, UT MD Anderson Cancer Center, 1994-1998.
- N.L. Tartar Fellow, 1992-1993.

TEACHING AND STUDENT LEARNING

Courses Taught

Chemistry

- CHEM131 – General Chemistry I
- CHEM132 – General Chemistry II
- CHEM231 – Organic Chemistry I
- CHEM232 – Organic Chemistry II
- CHEM343 – Biochemistry
- CHEM343L– Biochemistry Lab

- CHEM445 – Biochemistry
- CHEM445L – Biochemistry Lab
- CHEM477 – Environmental Chemistry
- CHEM479 – Biological Inorganic Chemistry

Environmental Toxicology

- ES918 – Special Topics: Molecular and Cellular Toxicology
- ES918 - Special Topics: Bio-Organic Chemistry of Nucleic Acids
- ES918 - Special Topics: Molecular Mechanisms of Toxicity
- ES918 - Special Topics: Current Topics in Molecular Toxicology
- ES902 – Mechanism of Toxic Action
- ES918 – Special Topics
- ES917 – Bioorganic Chemistry

Courses Developed or Substantially Revised:

- ES918-03 – Molecular and Cellular Toxicology
- ES918-02 – Bio-Organic Chemistry of Nucleic Acids
- ES918 - Special Topics: Molecular Mechanisms of Toxicity
- ES918 – Current Topics in Molecular Toxicology
- ES902 – Mechanism of Toxic Action
- ES917 – Bioorganic Chemistry
- CHEM445L – Biochemistry Lab
- CHEM477 – Environmental Chemistry
- CHEM479 – Biological Inorganic Chemistry