

**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. Ekinici 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, NOBCCChE 2008 Southwest Regional Meeting, Houston, Texas
2. **Clement JQ**, Lacy SM, Vines, D, Wilson BL, Wu H (2008) Simulated Microgravity Effect on the Expression Profile of AG1522 Fibroblasts, NOBCCChE 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, 37<sup>th</sup> 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, 37<sup>th</sup> COSPAR Assembly, Montreal, Canada
5. **Clement JQ**, Lacy SM, Wilson BL (2007) Genome-wide gene expression profiling of microgravity effect on human liver cells. 28<sup>th</sup> 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 3<sup>rd</sup> Annual Review and Conference, College Station, Texas
10. **Clement JQ**, Ananthaswamy HN (2005) Identification of Targeted Genes for p53 Growth Arrest. 20<sup>th</sup> Anniversary RCMC 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 1<sup>st</sup> 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. RCMC 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
- 20<sup>th</sup> 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