

EDUCATION

Ph.D. in Integrative Molecular Biology	June 2017
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Advisor: Patrick S. Moore, MD, MPH

Dissertation Title: Viral Regulation of Cap-Dependent mRNA Translation Inhibitor 4E-BP1 During Mitosis

Department of Microbiology and Molecular Genetics

University of Pittsburgh, Pittsburgh, PA

Relevant Coursework: Foundations of Biomedical Science (Biochemistry, Molecular Biology, Pharmacology, and Cell Biology), Molecular Virology, Experimental Virology, Tumor Virology, Biostatistics, Scientific Ethics, and Scientific Writing

B.S. in Biomedical Chemistry	May 2013
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Minors in Biology and General Business, *Summa Cum Laude*

Oral Roberts University, Tulsa, OK

Relevant Coursework: Biochemistry, Recombinant DNA Technology, Methods in Biotechnology, Genetics, Ecology, Organic Chemistry, Synthesis/Medicinal Chemistry, Chemical Instrumentation, Quantitative Analysis, Physical Chemistry, Calculus II, and Physics

Associate of Arts	May 2010
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Highest Honors

Tarrant County College, Fort Worth, TX

Relevant Coursework: Introductory Biology, General Chemistry, Calculus I

TEACHING & ADVISING EXPERIENCE

Assistant Professor of Biology	August 2017 - Present
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Oral Roberts University, Department of Biology and Chemistry

- Teach Developmental Biology lecture (1 section) and laboratory (1 section)
- Teach Introductory Biology I for Science Majors lecture (1 section) and laboratory (2 sections)

Graduate Program Representative	August 2013 - June 2017
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University of Pittsburgh, Program in Integrative Molecular Biology and Systems Biology

- Assisted graduate program directors and coordinators with graduate student recruitment, event planning, and program retreats and symposia

Teaching Assistant	August 2011 - May 2013
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Oral Roberts University, Department of Biology & Chemistry

- Assisted professors in General Chemistry I & II and Organic Chemistry I & II laboratories
- Collected IR and NMR spectra for compound identification in the organic chemistry laboratory
- Taught a weekly two-hour review session on topics covered during organic chemistry I & II lectures

Chemistry Tutor	August 2012 - May 2013
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American Chemical Society - Oral Roberts University Local Chapter

- Tutored students on a walk-in basis in the American Chemical Society office every week

Academic Peer Advisor	August 2012 - May 2013
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Oral Roberts University, Academic Peer Advisor Program

- Provided leadership over academics on dormitory floors

Math and Science Supervisor	February 2008 - July 2008
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Ruach International Christian School, Comayagua, Honduras

- Supervised honors Algebra 1 & 2 and Precalculus high school students
- Tutored students in high school biology, chemistry, and physics and revised their academic work

RESEARCH EXPERIENCE

Graduate Student Researcher**December 2013 - June 2017***University of Pittsburgh Cancer Institute, Department of Microbiology and Molecular Genetics*

- Investigated the regulation of mRNA translation/protein synthesis during mitosis in cancer cells
- Contributed to two peer-reviewed publications (first and second author) in the high-profile PNAS journal
- Presented research findings at departmental, local, and international scientific meetings and conferences
- Communicated research findings on a regular basis to lab members, committee members, and classmates
- Maintained laboratory centrifuge equipment and prepared reagents for common laboratory use
- Areas of expertise: molecular biology, cell biology, tumor/cancer virology, biochemistry

Undergraduate Researcher**August 2011 - May 2013***Oral Roberts University, Department of Biology & Chemistry*

- Single-handedly tested a new microwave reactor to synthesize organic compounds for a green laboratory
- Calculated the predicted vibrational frequencies and IR and Raman spectra of various organic molecules
- Determined the liquid components within glowsticks using IR, NMR, and UV-Vis spectrometry and HPLC
- Identified phenol, *m*-xylene, and pyridine peaks within cigarette smoke samples using gas chromatography

EXTRACURRICULAR EXPERIENCE

Consultant**October 2015 - June 2017***Fourth River Solutions, Pittsburgh, PA*

- Provided non-profit consulting engagements to local start-up technology companies
- Performed market analyses, composed reports, and presented deliverables with consultant team members

Head Team Leader**August 2011 - May 2013***Oral Roberts University, Missions & Outreach*

- Led a team of Spanish-speaking students that served weekly at the Good Samaritan Mobile Medical Clinic
- Translated for medical doctors attending to non-English-speaking Hispanic patients
- Took vital signs, measured weight, performed glucose tests, and collected patient intake information

Representative, Multi-Ethnic and Cultural Relations Committee Chair**August 2010 - May 2011***Oral Roberts University, Student Association General Assembly*

- Co-authored proposals to increase international student representation and involvement
- Reviewed *Who's Who Among Students* and graduation speech applications with faculty members

Office Assistant**August 2010 - May 2011***Oral Roberts University, Hispanic Center and Student Development*

- Researched and compiled an extensive list of academic scholarships for Hispanic Americans
- Translated English documents to Spanish and delivered interdepartmental mail

PUBLICATIONS

Velásquez C, Cheng E, Shuda M, Lee-Oesterreich PJ, Pogge von Strandmann L, Gritsenko MA, Jacobs JM, Moore PS, Chang Y. *Mitotic protein kinase CDK1 phosphorylation of mRNA translation regulator 4E-BP1 Ser83 may contribute to cell transformation*. Proc Natl Acad Sci U S A. 2016 Jul 26

Shuda M, **Velásquez C**, Cheng E, Cordek DG, Kwun HJ, Chang Y, Moore PS. *CDK1 substitutes for mTOR kinase to activate mitotic cap-dependent protein translation*. Proc Natl Acad Sci U S A. 2015 May 12

MEMBERSHIPS

- Vice-president, American Chemical Society, Oral Roberts University Local Chapter, 2012 - 2013
- Local member (2010 - 2013) and national member (2011 - 2013) of the American Chemical Society
- National member of the American Scientific Affiliation, 2011 - 2013

TECHNICAL SKILLS

- **Education:** Completed Lynda.com technology training coursework in instructional design
- **Computer:** Proficient in MS Office Word, Excel, PowerPoint, and EndNote; Mac & PC operating systems
- **Cell Biology:** Mammalian cell and tissue culture, cell isolation from tumor biopsies, transient transfection, lentivirus production and transduction, drug treatment, cell cycle synchronization, cell proliferation, cell transformation, fluorescence microscopy, flow cytometry, CRISPR/Cas9 genome editing
- **Protein:** 1D/2D SDS-PAGE, Coomassie blue staining, Western blotting, immunoprecipitation, pull-down assays, phosphorylation and dephosphorylation assays, protein overexpression/purification from bacteria
- **DNA:** Molecular cloning, plasmid and genomic DNA purification/isolation, PCR, site-directed mutagenesis

PROFESSIONAL PRESENTATIONS

- Oral Presentation at the International DNA Tumour Virus Meeting in Montreal, Canada, 2016
- Oral Presentation at the Molecular Genetics & Developmental Biology, Cell Biology & Molecular Physiology, and Integrative Systems Biology Programs Retreat, University of Pittsburgh, 2017
- Oral Presentations at the Bridgeside Research Forum, Department of Microbiology and Molecular Genetics, University of Pittsburgh, 2015 - 2017
- Oral Presentation at the Integrative Systems Biology Symposium, University of Pittsburgh, 2015
- Poster Presentation at the Integrative Systems Biology Symposium, University of Pittsburgh, 2017
- Poster Presentations at the University of Pittsburgh Cancer Institute Scientific Retreat and University of Pittsburgh Science Conference, 2014 - 2016
- Poster Presentations at the Pentasectional Meeting of the American Chemical Society, Tulsa, OK, 2013

HONORS & AWARDS

- Student Spotlight Award, University of Pittsburgh Biomedical Graduate Student Association, Fall 2016
- Outstanding Chemistry Student, Oral Roberts University, Class of 2013
- President's Honor List, Oral Roberts University, 2010 - 2012
- 94th percentile on the ACS Standardized Exam in Organic Chemistry, Spring 2011
- Whole Person Full-Tuition Scholarship, Oral Roberts University, 2010 - 2013
- Highest Honors, Tarrant County College, Class of 2010
- Dean's List, Tarrant County College, 2008 - 2010
- Who's Who Among Students in American Universities and Colleges, Spring 2010
- Datatel Scholars Foundation Scholarship, 2009 - 2010

REFERENCES

Patrick S. Moore, MD, MPH

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