Victoria Wu, Ph.D.

Employment

Chapman University, Rinker School of Pharmacy, Sr. Research Associate, Irvine, CA
October 2016 - Present

University of Illinois, Chicago, Visiting Assistant Research Professor, Chicago, IL
April 2014 – August 2016

Stanford University, Staff Scientist/Lab Manager, Stanford, CA
February 2012 - December 2013

San Jose City College, Adjunct faculty - Microbiology, San Jose, CA
February 2012 - May 2012

University of California San Francisco, Post- Doctorial Scholar, San Francisco, CA
April 2006 - June 2011.

Education

Doctor of Philosophy, Molecular and Cellular Biology**,** Northwestern University, Evanston IL, 2006

Master of Arts, Social Science – Physical Anthropology**,** San Jose State University, San Jose CA, 1999

Bachelor of Arts, Physical Anthropology, San Jose State University, San Jose, CA, 1994

Research Experience

Chapman University, Rinker School of Pharmacy, Irvine, CA
- Sr. Research Associate, Laboratory of Dr. Vuk Uskokovic, 2016 - Present
  Research: Study of the biological effects of calcium phosphate nanoparticles as a drug delivery agent in bone infectious diseases and cancer

University of Illinois, Chicago, Department of Bioengineering, Chicago, IL
- Visiting Assistant Research Professor, Laboratory of Dr. Vuk Uskokovic, 2014 – 2016
  Research: Study of biological effects of nanoparticle interaction with cellular systems in infectious disease and cancer

Stanford University, Department of Bioengineering, Stanford, CA
- *Staff Scientist,* Laboratory of Dr. Ingmar Reidel-Kruse, 2012 – 2013

Research: Mechanical forces involved in zebrafish embryogenesis
Research: Development of remote science experiments for K-12 students

University of California San Francisco, Department of Biochemistry, San Francisco, CA
•*Post-Doctoral Fellow*, Laboratory of Dr. Jeremy Reiter, 2006 – 2011.
Research: Development of novel drug inhibitors of Hedgehog signal transduction
Research: Essential role of extra-embryonic tissue in early mouse

Northwestern University, Department of Biochemistry, Molecular and Cell Biology, Evanston, IL
• *Doctoral Student,* Laboratory of Dr. Greg Beitel, 2000 – 2006
Research: Extracellular junction proteins affect development of tube organs in Drosophila embryogenesis

San Jose State University, Department of Anthropology, San Jose, CA
• *Masters Student,* Advisor, Dr. Robert Jurmain, 1995 – 1998
Research: Tuberculosis in pre-historic Californian Native American tribes

Santa Clara University, Santa Clara University, San Clara, CA
• *Contracted Researcher*, Advisor, Dr. Lorna Pierce, 1997- 1998
Research: Tracking migration of ancient Native Americans using mitochondrial DNA

San Jose State University, Department of Biology, San Jose, CA
• *Research Assistant,* Laboratory of Dr. Steven White, 1997 - 1999
Research: Expression of genes involved in vertebrate heart development

University Teaching Experience

Lecture Courses

San Jose City College, *Department of Biology,* San Jose, CA 2012
• ***Instructor*** for Biology 74, Microbiology Lecture. Conducted Lectures and discussions on topics fundamental to general microbiology.

Northwestern University, *Department of Biochemistry, Molecular and Cell Biology*, Evanston, IL, 2003
• ***Teaching Assistant*** for an undergraduate course designed to introduce relevant, current topics in biology to non-science undergraduates.
• Conducted scientific discussions of topics from leading scientific journals on a weekly basis

Northwestern University, *Department of Biochemistry, Molecular and Cell Biology*, Evanston, IL, 2001
- ***Teaching Assistant*** for a General Genetics weekly workshop
- Led discussions and tutorials and provided review on the fundamental concepts of modern genetics in both prokaryotes and eukaryotes.

San Jose State University, *Department of Biology*, San Jose, CA, 1998 - 1999
- ***Instructor*** for a General Genetics weekly seminar
- Conducted lectures and led discussions on topics including Mendelian Genetics, Molecular Genetics, Gene Inheritance and Expression and Evolution.

Laboratory Courses

San Jose City College, *Department of Biology,* San Jose, CA 2012
- ***Instructor*** for Biology 74, Microbiology Laboratory section. Taught students the basics of laboratory microbiology, experimental design, analyzing experimental data and understanding the role of microbes in the environment and health.

Northwestern University, *Department of Biochemistry, Molecular and Cell Biology*, Evanston, IL, 2000
- ***Lab Instructor*** for two sections of the General Biology Laboratory course for undergraduates.

San Jose State University, *Department of Biology*, San Jose, CA, 1997 – 1998
- ***Teaching Assistant*** for techniques in Molecular Genetics.
- Demonstrated and explained purpose and goal of advanced molecular techniques such as PCR, restriction site mapping and molecular cloning.

San Jose State University, *Department of Anthropology*, San Jose, CA, 1996
- ***Teaching Assistant*** for laboratory section of the Human Osteology course.
- Demonstrated and taught students how to distinguish and identify human osteological remains in an archaeological setting.

Community and K-12 Teaching

Scientist Teaching Partner, UCSF Science & Education Program, 2010
- Participated in a four-week teaching program explaining the concepts of magnetism and electricity using practical demonstrations and activities to 3-5th grade students at Miraloma Elementary School.

Grand Awards Judge for Animal Science, Intel International Science and Engineering Fair, 2010

Scientist Teaching Partner, UCSF Center for Science & Education Opportunity, 2009-2010

- Created fake crime scenes to teach concepts of chromatography in forensic science to visiting K-12 students on multiple occasions.

Professional Development

Science Teaching Workshop, Science & Education Program, University of California, San Francisco, CA 2011

Scientific Leadership and Management Skills Course, Gladstone Institute, UCSF, San Francisco, CA 2010

Molecular Embryology of the Mouse, Cold Spring Harbor, NY, 2007

Volunteerism and Leadership

California Academy of Sciences, Mammalogy and Ornithology specimen preparation, San Francisco, CA, 2009 - 2010

Asian Women's Shelter, Women and Children support, San Francisco, CA 2008 - 2010

Anxiter Center, Literacy volunteer, Chicago IL 2001- 2006

Peer Reviewed Publications

Ignjatović NL, Penov-Gaši KM, **Wu**, **V.M**., Ajduković JJ, Kojić VV, Vasiljević-Radović D, Kuzmanović M, Uskoković V, Uskoković DP. Selective anticancer activity of hydroxyapatite/chitosan-poly(d,l)-lactide-co-glycolide particles loaded with an androstane-based cancer inhibitor. Colloids Surf B Biointerfaces. 2016 Sep 28;148:629-639.

Stojanović ZS, Ignjatović N, **Wu**, **V.M**., Žunič V, Veselinović L, Škapin S, Miljković M, Uskoković V, Uskoković D. Hydrothermally processed 1D hydroxyapatite: Mechanism of formation and biocompatibility studies. Mater Sci Eng C Mater Biol Appl. 2016 Nov 1;68:746-57

Uskoković V, **Wu, V.M**. Calcium Phosphate as a Key Material for Socially Responsible Tissue Engineering. Materials (Basel). 2016 Jun;9(6)

Wu, V.M., Uskoković, V. Is There a Relationship between Solubility and Resorbability of Different Calcium Phosphate Phases in vitro? Biochim Biophys Acta. 2016 Oct;1860(10):2157-68

Ghosh, S., **Wu, V.M.**, Pernal, S., Uskoković, V. Self-Setting Calcium Phosphate Cements with Tunable Antibiotic Release Rates for Advanced Bone Graft Applications. ACS Applied Materials and Interfaces 8 (12) 7691 – 7708, 2016.

Khan, M. A., **Wu, V.M.**, Ghosh, S., Uskoković, V. Gene Delivery Using Calcium Phosphate Nanoparticles: Optimization of the Transfection Process and the Effects of Citrate and Poly(L-Lysine) as Additives. Journal of Colloid and Interface Science 471, 48 – 58, 2016.

Ignjatović, N., **Wu, V.M.**, Ajduković, Z., Mihajilov-Krstev, T., Uskoković, V., Uskoković, D. Chitosan-PLGA Polymer Blends as Coatings for Hydroxyapatite Nanoparticles and Their Effect on Antimicrobial Properties, Osteoconductivity and Regeneration of Osseous Tissues. Materials Science and Engineering C: Materials for Biological Applications 60, 357 – 364, 2016.

Wu, V.M., Chen, S., Arkin, M., Reiter, J.F. Identification of small molecule inhibitors of Smoothened ciliary localization and ciliogenesis. Proc Natl Acad Sci USA, 109(34)13644-9, 2012.

Wu, V.M., Yu, M.H., Paik, R., Banerjee, S., Liang, Z., Bhat, M., Beitel, G.J. Drosophila Varicose, a member of a new subgroup of basolateral MAGUKs, is required for septate junctions and morphogenesis. Development, 134(5):999-1009, 2007.

Wu, V.M., Determination of sex and determination of lineage from mitochondrial DNA. Revealing Santa Clara University's Pre-Historic Past: CA-SCI-755 – Evidence from the Arts & Science Building Project, Skowronek, R.W. and Pierce, L, C. (eds.). Santa Clara University, Santa Clara, CA. 2006.

Le, T., Liang, Z., Patel, H., Yu, M. H, Sivasubramaniam, G., Slovitt, M., Tanentzapf, G., Mohanty, N., Paul, S. M., **Wu, V. M.**, Beitel, G. J. A new family of Drosophila balancer chromosomes with a w- dfd-GMR yellow fluorescent protein marker. Genetics, 174(4):2255-7, 2006

Wu, V.M., Beitel, G. J. A junctional problem of apical proportions: epithelial tube-size control by septate junctions in the Drosophila tracheal system. Current Opinion in Cell Biology, 16(5):493-9, 2004.

Wu V.M., Schulte J., Hirschi A., Tepass U., Beitel G. J. Sinuous is a *drosophila* claudin required for septate junction organization and epithelial tube size control. Journal of Cell Biology, 164(2):313-24, 2004.

Awards and Fellowships

NIH Institutional Research Service Award in Molecular and Cellular Basis of Cardiovascular Disease 2006-2009

Center for Genetic Medicine Travel Fellowship Award 2003

Molecular Basis of Disease NIH Training Grant 2001, 2002

Research Grant from the College of Social Science, San Jose State University, 1998