

JONATHAN A. KELBER

UCSD School of Medicine
Department of Pathology & Moores Cancer Center
9500 Gilman Drive #0612
La Jolla, CA 92093-0612

jkelber@ucsd.edu
Phone: 858-822-5616
Fax: 858-822-4566
Cell Phone: 858-373-8906

Education:

- 2004-2009 *Ph.D. in Biochemistry*
UC San Diego / Salk Institute for Biological Studies
- 2002-2003 *M.S. in Biochemistry*
California State Polytechnic University, Pomona, CA
- 1996-1999 *B.S. in Chemistry (magna cum laude)*
California State Polytechnic University, Pomona, CA

Teaching Experience:

- 2007-present *Undergraduate Research Mentor (Evan C. Booker – UCSD)*
Vale Lab, Salk Institute for Biological Studies
- 2005-2006 *Biochemistry Teaching Associate*
University of California San Diego
- 2004 *Biochemistry Teaching Associate*
California State Polytechnic University, Pomona, CA
- 2002-2003 *Biochemistry Teaching Assistant*
California State Polytechnic University, Pomona, CA
- 1999-2002 *AP Biology, Chemistry & Mathematics Teacher/Head Water Polo & Swimming Coach*
The Webb Schools, Claremont, CA

Research Experience:

- 2009-Present *Cellular and molecular mechanisms of cancer metastasis*
Richard Klemke (UCSD Department of Pathology & Moores Cancer Center)
- 2004-2009 *Mechanism, function and modulation of oncogenic Cripto signaling*
Wylie Vale (The Salk Institute for Biological Studies)
- 2003-2004 *Chemical synthesis of membrane fusion and amyloid-like proteins*
Patrick Mobley (California State Polytechnic University Pomona)
- 2002-2003 *HIV-1 fusion peptides: ATR-FTIR, Fluorescence and DLS analysis*
Patrick Mobley (California State Polytechnic University Pomona)
- 1997-1999 *HIV-1 fusion peptides: NMR structural analysis*

Patrick Mobley (California State Polytechnic University Pomona)

Research Publications:

Kelber, J.A., Panopoulos, A.D., Shani, G., Booker, E.C., Belmonte, J.C., Vale, W.W., Gray, P.C. Blockade of Cripto binding to cell surface GRP78 inhibits oncogenic Cripto signaling via MAPK/PI3K and Smad2/3 pathways. (manuscript in review at Oncogene)

Kelber, J.A., Shani, G., Booker, E.C., Vale, W.W., Gray, P.C. Cripto is a noncompetitive activin antagonist that forms analogous signaling complexes with activin and nodal (2008) J Biol Chem 283(8), 4490-4500

Shani, G., Fischer, W.H., Justice, N.J., **Kelber, J.A.**, Vale, W.W., Gray, P.C. GRP78 and Cripto form a complex at the cell surface and collaborate to inhibit transforming growth factor beta signaling and enhance cell growth (2008) Mol Cell Biol 28(2), 666-677

Gray, P.C., Shani, G., Aung, K., **Kelber, J.A.**, Vale, W.W. Cripto binds transforming growth factor beta (TGF-beta) and inhibits TGF-beta signaling (2006) Mol Cell Biol 24, 9268-78

Mobley, P.W., Nisthal, A., Julius, J., **Kelber, J.A.**, Gonzales, A., Eskandari, S., Waring, A., Gordon, L. The HIV-1 fusion peptide has amyloid properties (2006) Proceedings of the 19th American Peptide Symposium 9, 686-687

Research Presentations:

2008 **Kelber, J.A.**, Shani, G., Booker, E.C., Vale, W.W., Gray, P.C. Mechanism of Cripto modulation of activins and nodal Endocrine Society (oral presentation)

2008 **Kelber, J.A.**, Shani, G., Booker, E.C., Vale, W.W., Gray, P.C. Cripto forms similar signaling complexes with activin-A and nodal and reduces activin-A efficacy American Association of Cancer Research (poster)

2007 **Kelber, J.A.**, Vale, W.W., Gray, P.C. ALK4 mutants with disrupted activin binding, bind and abrogate Cripto antagonism of activin-A Endocrine Society (poster)

2004 Roy, J.L., **Kelber, J.A.**, Mobley, P.W. Correlations Between Conformation and Activity In HIV-1 Fusion Peptides Southern California Conference of Undergraduate Research (poster)

2003 **Kelber, J.A.** and Mobley, P.W. Conformation and Activity of HIV-1 Fusion Peptides University of Vermont Department of Biophysics' Consortium (poster)

2003 Nisthal, A., Wilson, J., Lewis, C., Julius, J.A., **Kelber, J.A.**, Mobley, P.W. A Comparison of DMSO and NMP as Carriers for Fusogenic Peptides Society for Advancement of Chicanos and Native Americans in Science (poster)

2003 **Kelber, J.A.** and Mobley, P.W. Peptide-Membrane Interactions of the HIV-1 Fusion Peptide: A Structure/Function Study California State University Program for Education and Research in Biotechnology (poster)

- 2001 **Kelber, J.A.** and Mobley, P.W. *HIV-1 Fusion Peptides and Their Ability to Induce Nonlamellar Membrane Structures* California State University Program for Education and Research in Biotechnology (poster)
- 1999 **Kelber, J.A.** and Mobley, P.W. *HIV-1 Fusion Peptides and Nonlamellar Membrane Structures* Southern California Conference of Undergraduate Research (oral presentation)

Awards & Honors:

- 2006 Salk Institute Association Fellowship
- 2000 & 2002 “Coach of the Year” – The Webb Schools
- 1997 & 1998 CSU Pomona Department of Chemistry and Biochemistry Undergraduate Awards

Professional Memberships:

- 2005-Present Member of the Endocrine Society
- 2005-Present Member of the American Association for Cancer Research