



## John Muraski, Ph.D.

*Senior Consultant, Regulatory Affairs*

### EXPERIENCE:

- Catalyst Biomedical, LLC
- Scientific Advisor, BonWrx
- Scientific Advisor, Horizon View Partners
- Scientific Advisor, Bentley Biomedical
- Stem Cell and Genomics Moderator, LabRoots
- Speaker Selection Committee, BioConference Live
- Owner & Principal Consultant, TransgenX
- Manager, In Vitro & In Vivo Toxicology, NAMSA
- Director, Molecular Cardiovascular Research Lab, San Diego State University
- Director of Mouse Genomics, San Diego State University
- Previous research positions at Amgen, Inc. and Roche

### AREAS OF EXPERTISE:

Including, but not limited to

#### *Products:*

- Cardiovascular, Orthopedic, Dental, Silicone, Neurological, and Surgical
- External electrical
- Tissue engineering and wound care
- Combination
- Immunodiagnostics

#### *Disciplines:*

- CLIA, and FDA cGMP, GLP, GTP, and GCP Regulations
- ISO 13485 and 10993
- US FDA 510(k), IND, NDA, NDI, BLA and PMA submissions
- Biocompatibility, toxicology, microbiology, and sterilization
- Pharmaceuticals and Biologics:
  - Autologous, allogenic, & embryonic stem cell therapeutics
  - Analgesic & Genitourinary therapeutics
  - Cancer & Diabetes therapeutics and detection
  - Genetic and genomic based therapeutics

### EDUCATION:

- Senior Research Fellowship, Harvard Medical School, Boston, MA USA
- Ph.D. Biology, emphasis in Cellular & Molecular Biology, University of California San Diego, CA USA
- B.S. Biochemistry & Molecular Biology, California Lutheran University, Thousand Oaks, CA USA



### PROFESSIONAL AFFILIATIONS:

- Full Member Elect, Sigma Xi Scientific Research Society
- Member, Orange County Regulatory Affairs (OCRA) group
- Member, Regulatory Affairs Professionals Society
- Member, American Association for the Advancement of Science
- Professional Member, American Heart Association
- Professional Member, American Society for Cell Biology

### HONORS:

- Muraski, JA, Sussman, MA. Composition and Methods Using Pim-1 to Induce Cellular Proliferation and Protect Cells from Hypoxia and Cellular Apoptosis. Application Number: 12/742,871. November 14, 2008.
- Rees-Stealy Research Fellow, 2004-2007.

### PUBLICATIONS:

- Cottage CT, Bailey B, Fischer KM, Avitable D, Collins B, Tuck S, Quijada P, Gude N, Alvarez R, Muraski J, Sussman MA. Cardiac progenitor cell cycling stimulated by pim-1 kinase. *Circulation Research* 2010 Mar 19; 106(5):891-901.
- Muraski JA, Fischer KM, Wu W, Cottage CT, Quijada P, Mason M, Din S, Gude N, Alvarez R Jr., Rota M, Kajstura J, Wang Z, Schaefer E, Chen X, MacDonnel S, Magnuson N, Houser SR, Anversa P, Sussman MA. Pim-1 kinase antagonizes aspects of myocardial hypertrophy and compensation to pathological pressure overload. *Proceedings of the National Academy of Science* 2008; 105(37): 13889-94.
- Siddiqi S, Gude N, Hosoda T, Muraski J, Rubio M, Emmanuel G, Fransioli J, Vitale S, Parolin C, D'Amario D, Schaefer E, Kajstura J, Leri A, Anversa P, Sussman MA. Induction of Nucleostemin in Cardiomyocytes Responding to Pathological Challenge. *Circulation Research* 2008; Jul 3; 103(1):89-97.
- Gude N, Emmanuel G, Wu W, Cottage CT, Fischer K, Quijada P, Muraski JA, Alvarez R, Rubio M, Schaefer E, Sussman MA. Activation of Notch-Mediated Protective Signaling in the Myocardium. *Circulation Research* 2008; May 9; 102(9):1025-35.
- Fransioli J, Bailey B, Gude NA, Cottage CT, Muraski JA, Emmanuel G, Wu W, Alvarez R, Rubio M, Ottolenghi S, Schaefer E, Sussman MA. Evolution of the c-kit Positive Cell Response to Pathological Challenge in the Myocardium. *Stem Cells* 2008; 10.1634.
- Tillmans J, Rota M, Hosada T, Misao Y, Esposito G, Gonzalez A, Vitale S, Parolin C, Yasuzawa-Amano S, Muraski J, De Angelis A, LeCapitaine N, Siggins RW, Loredi M, Bearzi C, Bolli R, Urbanek K, Leri A, Kajstura J, Anversa P. Formation of Large Coronary Arteries by Cardiac Progenitor Cells. *Proceedings of the National Academy of Science* 2008; 105(5):1668-73.
- Muraski JA, Rota M, Misao Y, Fransioli J, Cottage C, Gude N, Esposito G, Delucchi F, Arcarese M, Alvarez R, Siddiqi S, Emmanuel GN, Wu W, Martindale J, Glembotski CC, Leri A, Kajstura Y, Magnuson N, Berns A, Beretta R, Houser, SR, Schaefer E, Anversa P, Sussman MA. Pim-1 Regulates Cardiomyocyte Survival Downstream of Akt. *Nature Medicine* 2007; 13(12): 1467-75.
- Rota M, Kajstura J, Hosada T, Bearzi C, Vitale S, Esposito G, Iaffaldana G, Padin-Iruegas ME, Gonzalez A, Rizzi R, Small N, Muraski J, Xiongwen C, Urbanek K, Bolli R, Houser SR, Leri A, Sussman MA, Anversa P. Bone Marrow Cells Adopt the Cardiomyogenic Fate in vivo. *Proceedings of the National Academy of Science* 2007; 104(45):17783-8.
- Gude N, Muraski J, Rubio M, Kastura J, Schaefer E, Anversa P, Sussman MA. Akt Promotes Increased Cardiomyocyte Cycling and Expansion of the Cardiac Progenitor Cell Population. *Circulation Research* 2006; 99(4):381-8.



- Tsujita Y, Muraski J, Shiriashi I, Kato T, Kastura J, Anversa P, Sussman MA. Nuclear Targeting of Akt Antagonizes Aspects of Cardiomyocyte Hypertrophy. *Proceedings of the National Academy of Science* 2006; 103(32):11946-51.
- Kato T, Muraski JA, Chen Y, Wall J, Glembotski CG, Schaefer E, Beckerle M, Sussman MA. Atrial Natriuretic Peptide Promotes Cardiomyocyte Survival by cGMP-dependent Nuclear Accumulation of Zyxin and Akt. *Journal Of Clinical Investigation* 2005; 115(10):2716-30.