

July 2015

CURRICULUM VITAE
CHRISTOPHER DRAVIS

PERSONAL:

Date of Birth: November 20, 1978

Marital Status: Married – Sonal G. Thakar, Ph.D./One child

EDUCATION:

2009 University of Texas Southwestern Medical Center
Ph.D., Genetics and Development
Dr. Mark Henkemeyer, Advisor

2001 University of Pennsylvania
B.A., Biology, Awarded with distinction
Dr. Erfei Bi, Advisor

PROFESSIONAL EXPERIENCE:

2012-pres Postdoctoral Fellow: Gene Expression Laboratory, The Salk
Institute for Biological Studies, Dr. Geoffrey M. Wahl, Advisor

2009-2011 Postdoctoral Fellow: Department of Development, University of
Texas Southwestern Medical Center; Dr. Mark Henkemeyer,
Advisor

HONORS:

- Recipient Neysa Cristol Adams Award (outstanding undergraduate research) (2001)
- Competitive institutional National Institutes of Health training Predoctoral Fellowship (2004)
- Nominata Award Finalist (outstanding doctoral research) (2008)
- Competitive institutional National Institutes of Health training Postdoctoral Fellowship (2012)
- National Institutes of Health individual F32 Postdoctoral Fellowship (2013)
- Co-organizer of 2014 Salk Cancer Day Symposium “Targeted Therapeutics and Resistance”
- Susan G. Komen Scholar-in-Training (2015)

MEMBERSHIPS:

American Association for Cancer Research (since 2012)

PUBLICATIONS:

1. Luo, J., Vallen EA., Dravis, C., Tcheperegine, SE., Drees, B., and Bi, E. Identification and functional analysis of the essential and regulatory light chains of the only type II myosin Myo1p in *Saccharomyces cerevisiae*. **Journal of Cell Biology**. 165, 843-855 (2004).
2. Dravis, C., Yokoyama, N., Chumley, MJ., Cowan, CA., Silvany, RE., Shay, J., Baker, LA., Henkemeyer, M. Bidirectional signaling mediated by ephrin-B2 and EphB2 controls urorectal development. **Developmental Biology**. 271(2), 272-290 (2004).
3. Altick, A.L., Dravis, C., Bowdler, T., Henkemeyer, M. and Mastick, G.S. EphB receptor tyrosine kinases control morphological development of the ventral midbrain. **Mechanisms of Development**. 122, 501-512 (2005).
4. Garcia, NM., Algood, J., Santos, LJ., Lonergan, D., Batanian, JR., Dravis, C., Henkemeyer, M., Bartsch, O., Schultz, RA., Zinn, AR., Baker, LA. Deletion mapping of critical region for hypospadias, penoscrotal transposition and imperforate anus on human chromosome 13. **Journal Pediatric Urology**. 2, 233-242 (2006).
5. Dravis, C., Wu, T., Chumley, M.J., Yokoyama, N., Wei, S., Wu, D.K., Marcus, D.C. and Henkemeyer, M. EphB2 and ephrin-B2 regulate the ionic homeostasis of vestibular endolymph. **Hearing Research**. 223, 93-104 (2007).
6. Yucel S., Dravis C., Garcia N., Henkemeyer M., Baker LA. Hypospadias and anorectal malformations mediated by Eph/ephrin signaling. **Journal Pediatric Urology**. 5, 354-363 (2007).
7. Fang, X., Luo, J., Nishihama, R., Wloka, C., Dravis, C., Travaglia, M., Iwase, M., Vallen, EA., Bi E. Biphasic targeting and cleavage furrow ingression directed by the tail of a myosin-II. **Journal of Cell Biology**. 191, 1333-1350 (2010).
8. Dravis, C. Ephs, ephrins, and bidirectional signaling. **Nature Education** 3(9):22 (2010).
9. Dravis, C. The Ephs and ephrins hardwire the nervous system. **Nature Education** 3(9):62 (2010).
10. Dravis, C. and Henkemeyer, M. Ephrin-B reverse signaling controls septation events at the embryonic midline through separate tyrosine phosphorylation-independent signaling avenues. **Developmental Biology**. 355, 138-151 (2011).
11. Villasenor A, Marty-Santos L, Dravis C, Fletcher P, Henkemeyer M, Cleaver O. EphB3 marks delaminating endocrine progenitor cells in the developing pancreas. **Developmental Dynamics**. 2012 May;241(5):1008-19.
12. Neilan RE, Shao D, Dravis C, Henkemeyer M, Lee KH. Characterization of the larynx in ephrin-B2 knockout mice: a novel animal model for laryngeal clefts. **Archives of Otolaryngology - Head and Neck Surgery**. 2012 Oct;138(10):969-72.

13. Makarem M, Spike BT, Dravis C, Kannan N, Wahl GM, Eaves CJ. Stem Cells and the Developing Mammary Gland. **Journal of Mammary Gland Biology and Neoplasia**. 2013 Apr 27.
14. Bennett K, Afanador M, Lal C, Xu H, Persad E, Legan S, Chenaux G, Dellinger M, Savani R, Dravis C, Henkemeyer M, Schwarz M. Ephrin-B2 Reverse Signaling Increases $\alpha 5\beta 1$ integrin mediated fibronectin deposition and reduces distal lung compliance. **American Journal of Respiratory Cell and Molecular Biology**. 2013 Oct; 49(4):680-7.
15. Robichaux MA, Chenaux G, Ho HH, Soskis MJ, Dravis C, Kwan KY, Sestan N, Greenberg ME, Henkemeyer M, Cowan CW. EphB Receptor Forward Signaling Coordinates the Selective Cofasciculation of Reciprocal Thalamic and Cortical Axons during Brain Development. **Proceedings of the National Academy of Sciences**. 2014 Feb 11;111(6):2188-93.
16. Lee KH, Lee J, Shao D, Dravis C, Henkemeyer M. Asymmetry in semicircular canal diameters may account for circling behavior in EphB-deficient mice. **Laryngoscope**. 2014 Jul;124(7):E278-82).
17. Dravis C, Spike BT, Harrell JC, Johns C, Trejo CL, Southard-Smith EM, Perou CM, Wahl GM. Sox10 regulates stem/progenitor and mesenchymal cell states in mammary epithelial cells. **Cell Reports**. (In press).
18. Dravis C, Trejo CL, Wahl GM. Identification and characterization of male fetal mammary stem cells as a model of stem cell quiescence. (In preparation).
19. Dravis C, Trejo CL, Wahl GM. Conserved roles from development for Sox10 in the promotion of stem-like and EMT-like functions in breast cancer. (In preparation)
20. Dravis C and Wahl GM. A novel inducible complementation model to label and ablate presumptive bipotent mammary cells *in vivo*. (In evaluation).

PRESENTATIONS:

Selected or invited podium presentations-

- Keystone Symposia, Signaling in Vertebrate Organogenesis, 2/26-3/2/2004, Santa Fe, NM. "Where's my Eph-ing colon? Bidirectional signaling mediated by ephrin-B2 and EphB2 controls urorectal development."
- Society for Developmental Biology Southwest and Gulf Regional Meeting, 10/1-10/3/2004, Dallas, TX. "Reverse signaling through ephrin-B2 controls urorectal development and axon pathfinding, but not early vascular development."
- American Academy of Pediatrics National Conference and Exhibition, 10/9-13/2004, San Francisco, CA. "Bidirectional signaling mediated by ephrin-B2 and EphB2 controls urorectal development."
- University of Texas Southwestern Medical Center Nominta Award Forum, 5/2008, Dallas, TX. "Ephrin-B2 reverse signaling controls cell-cell adhesion at the embryonic midline."
- Gordon Conference, Mammary Gland Biology, 6/9-6/14/2013, Stowe Vt. "Sox10 expression labels *in vitro* Mammary Stem Cell activity"

- 7th Symposium Mechanisms and Models of Cancer, 8/7-8/10/2013, Salk Institute, La Jolla, CA. “Sox10 expression labels *in vitro* Mammary Stem Cell activity”
- Helmsley Mixer Talk, 4/16/2014, Salk Institute, La Jolla, CA. “So10 labels mammary cells with stem/progenitor qualities”
- Post-Translational Regulation of Cell Signaling, 8/5-8/8/2014, Salk Institute, La Jolla, CA. “Sox10 expression labels and contributes to mammary stem cell activity and is attenuated by FGF signaling inhibition”
- Salk Cancer Center Retreat, 12/16/2014, Salk Institute, La Jolla, CA. “A critical role for Sox10 in determining stem cell or mesenchymal states in the mammary gland”
- 10th Symposium Mechanisms and Models of Cancer, 8/5-8/8/2015, Salk Institute, La Jolla, CA. “Sox10 regulates stem/progenitor and mesenchymal cell states in mammary epithelial cells”

Poster presentations-

- Salk Cancer Day Symposium, 2/23/13. “Sox10 expression labels mammary stem cell activity in fetal, adult, and cultured mammary.”
- Waitt Advanced Biophotonics Center Second Annual Symposium: Single Molecules to Cellular Systems. 5/31/13. Salk Institute, La Jolla, CA. “Sox10 expression labels mammary stem cell activity in fetal, adult, and cultured mammary tissues.”
- AACR Advances in Breast Cancer Research: Genetics, Biology, and Clinical Applications, 10/3-10/6/2013, San Diego, CA. “Sox10 expression labels *in vitro* Mammary Stem Cell activity”
- AACR Annual Meeting, 4/5-4/9/2014, San Diego, CA. “Sox10 expression labels mammary stem cell activity, and is attenuated by FGF signaling inhibition.”
- AACR Annual Meeting, 4/17-4/22/2015, Philadelphia, PA. “Sox10 regulates both stem/progenitor and mesenchymal states in mammary epithelial cells” (Susan G. Komen Scholar-in-training recipient).