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Education

2008 **Ph.D.** (Genes and Development), University of Texas Health Science Center at Houston
2003 **M.S.** (Toxicology), Fudan University, China
2000 **B.S.** (Preventive Medicine), Shanghai Medical University, China

Appointments

2016- **Assistant Professor**, Department of Dermatology, University of Wisconsin-Madison
2009-2016 **Postdoctoral fellow**, Johns Hopkins University/HHMI

Academic Honors

2016 DB Outstanding paper award (runner-up), *Journal of Developmental Biology*
2008 Keystone Symposia Scholarship
2008 Graduate Research Achievement Award (1st place), UT M.D. Anderson Cancer Center
2006 & 2008 Graduate Program Travel Award, UT M.D. Anderson Cancer Center
2006 & 2008 GSBS Travel Award, University of Texas-Houston
2001 & 2002 Excellent Graduate Scholarship, Fudan University, China
2000 Outstanding Graduate, Shanghai Municipal Education Commission, China
2000 3M Scholarship, 3M Co., Ltd. (Shanghai), China
2000 Thesis Award, School of Public Health, Shanghai Medical University, China
2000 Outstanding Undergraduate, Shanghai Medical University, China
1996 - 2000 Excellent Undergraduate Scholarship, Shanghai Medical University, China

Professional Society Memberships

2016- Society for Developmental Biology
2016- Society for Investigative Dermatology

Publications

1. Wang, Y., **Chang, H.**, Rattner, A., Nathans, J. (2016) Frizzled receptors in development and disease. *Current Topics in Developmental Biology*. 117:113-139.
2. **Chang, H.**, Smallwood, P.S., Williams, J., Nathans, J. (2016) The spatio-temporal domains of Frizzled6 action in planar polarity control of hair follicle orientation. *Developmental Biology*. 409:181-193.
3. **Chang, H.**, Cahill, H., Smallwood, P.S., Wang, Y., Nathans, J. (2015) Identification of Astrotactin2 as a genetic modifier that regulates the global orientation of mammalian hair follicles. *PLOS Genetics*. 11: e1005532.
4. Hua, Z.L.*, **Chang, H.***, Wang, Y., Smallwood, P.M., Nathans, J. (2014) Partial interchangeability of Fz3 and Fz6 in tissue polarity signaling for epithelial orientation and axon growth and guidance. *Development*. 141:3944-3954. *equal contribution.
5. **Chang, H.#**, Wang, Y., Wu, H., Nathans, J.# (2014) Flat mount imaging of mouse skin and its application to the analysis of hair follicle patterning and sensory axon morphology. *Journal of Visualized Experiments*. 88:e51749. #co-corresponding authors.
6. **Chang, H.**, Nathans, J. (2013) Responses of hair follicle-associated structures to loss of planar cell polarity signaling. *Proceedings of the National Academy of Sciences USA*. 110:E908-917.
7. Deng, J.M., Satoh, K., Wang, H., **Chang, H.**, Zhang, Z., Stewart, M.D., Cooney, A.J., Behringer, R.R. (2011) Generation of viable male and female mice from two fathers. *Biology of Reproduction*. 84:613-618.
8. Wang, Y., **Chang, H.**, Nathans, J. (2010) When whorls collide: the development of hair patterns in frizzled 6 mutant mice. *Development*. 137:4091-4099.
9. **Chang, H.**, Guillou, F., Taketo, M.M., Behringer, R.R. (2009) Overactive beta-catenin signaling causes testicular Sertoli cell tumor development in the mouse. *Biology of Reproduction*. 81:842-849.
10. **Chang, H. ***, Gao, F. *, Guillou, F., Taketo, M.M., Huff, V., Behringer, R.R. (2008) Wt1 negatively regulates beta-catenin signaling during testis development. *Development*. 135:1875-1885. *equal contribution.
11. Shu, J., Jelinek, J., **Chang, H.**, Shen, L., Qin, T., Chung, W., Oki, Y., Issa, J.P. (2006) Silencing of bidirectional promoters by DNA methylation in tumorigenesis. *Cancer Research*. 66:5077-5084.
12. Kobayashi, A., **Chang, H.**, Chaboissier, M.C., Schedl, A., Behringer, R.R. (2005) Sox9 in testis determination. *Annals of the New York Academy of Sciences*. 1061:9-17.
13. **Chang, H.**, Jin, T.Y., Jin, W.F., Gu, S.Z., Zhou, Y.F. (2003) Modulation of isoflavones on bone-nodule formation in rat calvaria osteoblasts in vitro. *Biomedical and Environmental Sciences*. 16:83-89.
14. Zhen, L.X., Zhu, J.H., **Chang, H.** (2002) Determination of genistein and daidzein in human urine. *Fudan University Journal of Medical Sciences*. 29:408-409.

15. **Chang, H.**, Jin, T.Y. (2002) Isoflavones and Osteoporosis. *Foreign Medical Sciences, Section Hygiene*. 29:42-45.
16. **Chang, H.**, Jin, T.Y. (2002) Advances in Endocrine Disrupting Efforts of Pentachlorophenol. *Journal of Environment and Health*. 19:279-281.

Seminars and Presentations

- 2016** SDB 75th Annual Meeting & ISD 19th International Conference, Boston, MA. **(Poster)**
- 2014** Johns Hopkins University, MBG Departmental Colloquium. **(Contributed Talk)**
- 2012** Johns Hopkins University, MBG Departmental Colloquium. **(Contributed Talk)**
- 2011** Johns Hopkins University, Center for Sensory Biology Departmental Seminar. **(Contributed Talk)**
- 2008** Keystone Symposia - Signaling Pathways in Cancer and Development, Steamboat Springs, CO. **(Invited Talk)**
- 2008** G&D program annual retreat, New Braunfels, TX. **(Invited Talk)**
- 2006** Fourth International Symposium on Vertebrate Sex Determination, Kona, HI. **(Poster)**
- 2006** 59th Annual Symposium on Cancer Research “Stem Cells in Cancer and Regenerative Medicine”, Houston, TX. **(Poster)**

Teaching and Mentoring Activities

- 2014** **Fuad Mohammad**, Graduate Rotation Student, BCMB Program, Johns Hopkins University.
- 2013** **Mark Sabbagh**, Graduate Rotation Student, BCMB Program, Johns Hopkins University.
- 2008** **Gabriel Gonzalez**, Graduate Rotation Student, Genes and Development Program, University of Texas Health Science Center at Houston.
- 2002** Teaching Assistant, *Toxicological experiment*, Fudan University, China.
- 2001** Teaching Assistant, *Experiments for Occupational Health*, Fudan University, China.