

CURRICULUM VITAE
(Last updated: 29 July 2016)

NAME: Young-Goo Han

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ACADEMIC DEGREES:

B.S., Molecular Biology, Seoul National University, Korea, 1995

M.S., Neuroendocrinology, Seoul National University, Korea, 1995~1997
Advisor: Kyungjin Kim

Ph.D., Genetics, State University of New York at Stony Brook, New York, USA, 1998~2003
Advisor: Maurice Kernan

PROFESSIONAL APPOINTMENTS:

Postdoctoral Fellow, University of California, San Francisco, California, USA, 2003~2011
Advisor: Arturo Alvarez-Buylla

Assistant Member, Department of Developmental Neurobiology, St. Jude Children's Research Hospital, Memphis, Tennessee, USA, 2011- Present

HONORS AND AWARDS:

1992 Maehun Scholarship, Maehun Foundation, Korea
2003 Excellence in Graduate Research Award, Institute for Cell and Developmental Biology, SUNY at Stony Brook, New York
2005 Mark Linder/American Brain Tumor Association Fellowship
2008 Best Presentation Award, Korean Life Scientists in Bay Area – Korea Research Institute of Bioscience and Biotechnology Joint Symposium
2008 Excellence in Pediatric Basic Research Award, Society for Neuro-Oncology
2010 Keystone Symposia Scholarship, Cilia Signaling and Human Disease, Monterey, California
2012 The Sontag Foundation Distinguished Scientist Award
2015 The Whitehall Foundation Research Grant Award

RESEARCH INTERESTS: Brain development and tumor

PROFESSIONAL SERVICES:

Journal reviewer:

2011 - Ad hoc Reviewer for Brain, Brain research, Developmental Neurobiology, Development, EMBO Journal, Journal of Neuro-Oncology, Journal of Neuroscience, Journal of Neuroscience Research, Molecular Brain, Nature Cell Biology, Nature Neuroscience, Neurogenesis,

Neuroreport, Oncogene, PLOS One, Scientific Reports, Stem Cells, and Wiley Interdisciplinary Reviews (WIREs): Systems Biology and Medicine

Grant reviewer:

- 2010 Ad hoc Reviewer for Qatar National Research Fund
- 2012 Ad hoc Reviewer for the North Carolina Biotechnology Collaborative Funding Grant
- 2013 Ad hoc Reviewer for The French National Research Agency Young Researchers Program, UK Medical Research Council Research Grant, UK the National center for the replacement, refinement, and reduction of animals in research (NC3) fellowship, and the University of Bordeaux (France) Junior Chairs Program

Editorial service:

- 2015- Guest editor for *Cilia* for a thematic series on “Primary Cilia and Cancer”

TRAINING and Mentoring:

Students:

- Fanny Roth - Exchange M.S. Student from University Paris-Diderot, France (2014)
- Camille Garnier - Exchange M.S. Student from University Paris-Diderot, France (2012)
- Austin Wheeler - Pediatric Oncology Education (POE) Program undergraduate student from Vanderbilt University (2012)
- Zongyu Chris Yang - undergraduate student, St. Jude – Rhodes College Summer Plus Program (2011 ~ 2013)

Postdoctoral fellows:

- Chang-Chih Wu – 2012 ~ present
- Chanhee Park – 2013 ~ 2014

PUBLICATIONS:

Articles

Seong JY, Kang SS, Kam K, Han YG, Kwon HB, Ryu K, Kim K. Differential regulation of gonadotropin-releasing hormone (GnRH) receptor expression in the posterior mediobasal hypothalamus by steroid hormones: implication of GnRH neuronal activity. *Brain Res Mol Brain Res* 53(1-2):226-235, 1998.

Han YG, Kang SS, Seong JY, Geum D, Suh YH, Kim K. Negative regulation of gonadotropin-releasing hormone and gonadotropin-releasing hormone receptor gene expression by a gonadotrophin-releasing hormone agonist in the rat hypothalamus. *J Neuroendocrinol* 11(3):195-201, 1999.

Chung YD, Zhu J, Han Y, Kernan MJ. nompA encodes a PNS-specific, ZP domain protein required to connect mechanosensory dendrites to sensory structures. *Neuron* 29(2):415-428, 2001.

Han YG, Kwok BH, Kernan MJ. Intraflagellar transport is required in *Drosophila* to differentiate sensory cilia but not sperm. *Curr Biol* 13(19):1679-1686, 2003.

- Preview Article: Cell Motility: Deaf *Drosophila* Keep the Beat, *Curr Biol* 13(20):R796-R798, 2003
- Faculty of 1000 rated “Must Read”

Han YG, Spassky N, Romaguera-Ros M, Garcia-Verdugo JM, Aguilar A, Schneider-Maunoury S, Alvarez-Buylla A. Hedgehog signaling and primary cilia are required for the formation of adult neural stem cells. *Nat Neurosci* 11(3):277-284, 2008.

- Featured in a *New York Times* article “Antenna on Cell Surface Is Key to Development and Disease” May 18 2009.
- Faculty of 1000 rated “Recommended”

Spassky N*, Han YG*, Aguilar A, Strehl L, Besse L, Laclef C, Ros MR, Garcia-Verdugo JM, Alvarez-Buylla A. Primary cilia are required for cerebellar development and Shh-dependent expansion of progenitor pool. * Equal contribution. *Dev Biol* 317(1):246-259, 2008.

Schüller U, Heine VM, Mao J, Kho AT, Dillon AK, Han YG, Huillard E, Sun T, Ligon AH, Qian Y, Ma Q, Alvarez-Buylla A, McMahon AP, Rowitch DH, Ligon KL. Acquisition of granule neuron precursor identity is a critical determinant of progenitor cell competence to form Hedgehog-induced medulloblastoma. *Cancer Cell* 14(2):123-134, 2008.

Han YG, Kim HJ, Dlugosz AA, Ellison DW, Gilbertson RJ, and Alvarez-Buylla A. Dual and opposing roles of primary cilia in medulloblastoma development. *Nat Med* 15(9):1062-1065, 2009.

- Preview Article: Two sides to cilia in cancer, *Nat Med* 15(9):994-996
- Research Highlight: Tail Wags Dog: Primary Cilia and Tumorigenesis, *Cancer Cell* 16:277-278, 2009
- Research Highlight: The Cilium as a Moving Target for Cancer Therapy, *Science Signaling* 2(88):ec308, 2009
- Research Highlight: Tumorigenesis: No frills attached, *Nat Rev Cancer*, 9(10):685
- Faculty of 1000 rated “Recommended”

Mirzadeh Z, Han YG, Soriano-Navarro M, García-Verdugo JM, Alvarez-Buylla A. Cilia regulate planar cell polarity of ependymal cells. *J Neurosci* 30(7):2600-2610, 2010.

Han YG, Alvarez-Buylla A. Role of primary cilia in brain development and cancer. *Curr Opin Neurobiol* 20(1):58-67, 2010.

Guirao B, Meunier A, Mortaud S, Aguilar A, Corsi JM, Strehl L, Hirota Y, Desoeuvre A, Boutin C, Han YG, Mirzadeh Z, Cremer H, Montcouquiol M, Sawamoto K, Spassky N. Coupling between hydrodynamic forces and planar cell polarity orients mammalian motile cilia. *Nat Cell Biol* 12(4):341-350, 2010.

Venere M, Han YG, Song JS, Bell R, Alvarez-Buylla A, Blelloch R. Sox1 marks an activated neural stem/progenitor cell of the hippocampus. *Development* 139(21):3938-49, 2012.

Marada S, Stewart DP, Bodeen WJ, Han YG, Ogden SK. The Unfolded Protein Response Selectively Targets Active Smoothed Mutants. *Mol Cell Biol* 33(12):2375-87, 2013.

Tong CK, Han YG, Shah JK, Obernier K, Guinto CD, Alvarez-Buylla A. Primary cilia are required in a unique subpopulation of neural progenitors. *PNAS* 111(34):12438-43, 2014.

Vo BT, Wolf E, Kawauchi D, Gebhardt A, Reh JE, Finkelstein D, Walz S, Murphy BL, Youn YH, Han YG, Eilers M, Roussel MF. The Interaction of Myc with Miz1 Defines Medulloblastoma Subgroup Identity. *Cancer Cell* 29(1):5-16. 2016.

Wang L, Hou S, Han YG. Sonic hedgehog signaling promotes basal progenitor cell expansion and the growth and folding of the neocortex. *Nat Neurosci*. 19(8):1115, 2016.

- Faculty of 1000 rated “Exceptional”

Campos Y, Qiu X, Gomero E, Moshiah S, Wakefield R, Brutkowski W, Han YG, Solecki D, Frase S, Bongiovanni A, d’Azzo A. Alix Regulates Epithelial Cell Polarity and Epithelial Barrier by Bridging the Actin Cytoskeleton with Tight Junction Proteins. *Nat Comm* 7:11876, 2016.

Book Chapters

Mirzadeh Z, Han YG, Garcia-Verdugo JM, Alvarez-Buylla A. Epithelial Organization of Adult Neurogenic Germinal Niche. In *Neurogenesis in the Adult Brain 1* (Seki T, Swamoto K, Parent JM, Alvarez-Buylla A Eds). Springer, 287-317, 2011.

Han YG, Alvarez-Buylla A. Primary Cilia as Switches in Brain Development and Cancer. In *Two Faces of Evil: Cancer and Neurodegeneration* (Curran T, Christen Y Eds). Springer, 73-82, 2011.

Hou S, Han YG. Primary cilia and brain cancer. In *Cilia and Nervous System Development & Function* (Caspary T, Tucker KL Eds). Springer, 209-228, 2013.

RESEARCH SUPPORT

Ongoing Research Support:

The Sontag Foundation Distinguished Scientist Award
Title: The Role of Primary Cilia in Medulloblastoma
Role: PI
10/01/2012-09/30/2016

The Whitehall Foundation Research Grant
Title: Shh signaling in the regulation of oRGs and gyrification
Role: PI
9/01/2015-08/31/2018

Finished Research Support:

5P30CA021765-34 DEV FUND (NCI Cancer Center Support Grant)
Title: Function of Primary Cilia in WNT and MYC Subtypes of Medulloblastoma
Role: PI
03/01/2012-02/28/2014