Semil P. Choksi

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Education/Training

Postdoctoral Research, Disease Modelling and Genetics, Apr 2006 – Present
Institute of Molecular and Cell Biology, Singapore

Ph.D., Developmental Genetics, Apr 2006
University of Cambridge, Cambridge, UK

B.Sc., Mathematics, Jun 2001
B.Sc., Genetics, Jun 2001
University of Georgia, Athens, GA, USA

Research

Apr 2006 - current

Senior Research Fellow, Institute of Molecular and Cell Biology, Singapore
Led a team using genomics, phenotypic screening and cell biology to investigate the transcriptional regulation of ciliogenesis in humans and zebrafish.

Junior Research Fellow, Institute of Molecular and Cell Biology, Singapore
Developed tools and reagents to investigate the molecular basis of adult regeneration in the zebrafish, *Danio rerio* with Dr. Sudipto Roy.

Oct 2001 - Mar 2006

Gates-Cambridge Ph.D. Fellow, University of Cambridge, Cambridge, UK
Genomics and bioinformatics analysis of the transcriptional regulation of neurogenesis in the fruit fly, *Drosophila melanogaster* with Drs. Andrea Brand and Gos Micklem.

Oct 1998 - May 2001

Foundation Fellow, University of Georgia, Athens, GA
Investigated *Drosophila* genetics, neural development and computer modelling of population dynamics with Drs. Michael Bender and Daniel Promislow.

Publications

Choksi SP*, Shboul M*, Chen S, Roy S, Reversade B. Mohr's syndrome (OFD2) is a ciliopathy caused by mutations in *asunder*. ***Manuscript in preparation*** (2015). **Contributed equally*

Babu D, **Choksi SP**, Roy S. LRRC9 is a novel regulator of ciliogenesis in vertebrates. ***Manuscript in preparation*** (2015).

Choksi SP†, Babu D, Lau AH, Yu XW, Roy S†. Systematic discovery of novel cilia genes through functional genomics in the zebrafish. ***Development*** 141:17 (2014) *Research Article*.
†*Corresponding author*

Choksi SP, Lauter G, Swoboda P, Roy S. Switching on cilia: the transcriptional regulation of ciliogenesis**.** ***Development*** 141:7 (2014) *Review*.

Lu H, Toh MT, Narasimhan V, Thamilselvam SK, **Choksi SP**, Roy S. A function for the Joubert syndrome protein Arl13b in ciliary membrane extension and ciliary length regulation. **Dev Biol (**2014).

Narasimhan V, Hjeij R, Vij S, Loges NT, Wallmeier J, Koerner-Rettberg C, Werner C, Thamilselvam SK, Boey A, **Choksi SP**, Pennekamp P, Roy S and Omran H. Mutations in CCDC11, which encodes a coiled-coil containing ciliary protein, causes situs inversus due to dysmotility of monocilia in the left-right organizer. **Human Mutation** (2014).

Liew HP, **Choksi SP**, Wong KL, Leong WY, Roy S. Blimp1 regulates slow-twitch fibre identity through both activation and repression of muscle development genes. ***Developmental Biology*** (2008).

Choksi SP*, Southall TD*, Bossing T, Edoff K, de Wit E, Fischer BE, van Steensel B, Micklem G, Brand AH. Prospero acts as a binary switch between self-renewal and differentiation in *Drosophila* neural stem cells. ***Developmental Cell*** 11:6 (2006) *Article*. **Contributed equally*

Carr AR, **Choksi SP**, Brand AH. Turning back the clock on neural progenitors. ***Bioessays*** 26:7 (2004) *Review*.

Rayburn LY, Gooding HC, **Choksi SP**, Maloney D, Kidd AR 3rd, Siekhaus DE, Bender M. amontillado, the *Drosophila* homolog of the prohormone processing protease PC2, is required during embryogenesis and early larval development. ***Genetics*** 16:1 (2003).

Beck CW, Shapiro B, **Choksi SP**, Promislow DEL. A genetic algorithm approach to study the evolution of female preference based on male age. ***Evolutionary Ecology Research*** 2 (2002).

Selected Invited Talks

Choksi SP. Systematic identification of novel cilia and ciliopathy genes using functional genomics in the zebrafish. **International Congress of Developmental Biology,** Cancun, Mexico (Jun, 2013).

Choksi SP. Systematic identification of novel cilia and ciliopathy genes using functional genomics in the zebrafish. **UCSF Seminar,** UCSF, California, USA (Jun, 2013).

Choksi SP. Systematic identification of novel cilia and ciliopathy genes using functional genomics in the zebrafish. **Joint HGM 2013 and 21st International Congress of Genetics,** MBS, Singapore (Apr, 2013).

Choksi SP[†]. A functional genomics screen in zebrafish defines the vertebrate motile ciliome and identifies a novel human ciliopathy gene. **DUKE-NUS Early Career Scientist Symposium**, Singapore (Oct, 2012).
[†]*Best oral presentation award*

Teaching

PhD Developmental Biology Course (2010). Animal Regeneration. IMCB, Singapore.

PhD Developmental Biology Course (2010, 2011). Animal Regeneration. Temasek Life Sciences Laboratory, Singapore.

Grants/Awards

2001 – 2005
Gates Cambridge Scholarship - *Full tuition graduate scholarship for the Univ of Cambridge*

1997 – 2001
Foundation Fellowship - *Full tuition and travel scholarship for the University of Georgia*

References

Dr. Sudipto Roy (sudipto@imcb.a-star.edu.sg)
Institute of Molecular and Cell Biology, Singapore

Prof. Philip Ingham (pingham@imcb.a-star.edu.sg)
Institute of Molecular and Cell Biology, Singapore

Prof. Andrea Brand (ahb@mole.bio.cam.ac.uk)
Gurdon Institute, University of Cambridge, Cambridge, UK

Dr. Bruno Reversade (bruno@reversade.com)
Institute of Medical Biology, Singapore