

**Lakshmi Pillai-Kastoori**

MCDB Program, Department of Biology  
University of Kentucky  
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**EDUCATION**

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2009-Present	MCDB Program, Dept. of Biology, University Of Kentucky (UKY) Doctoral Thesis Advisor: Dr. Ann C. Morris Qualifying examination completed: 08/17/2012, GPA: 3.607 GRE (2006): 580/800: 81 <sup>st</sup> percentile (Verbal), 710/800: 74 <sup>th</sup> percentile (Quantitative) TOEFL (2008): 113/120
2007	MSc. Life Sciences, Ramnarain Ruia College, University of Mumbai Percent Score: 74% (First Class, Distinction)
2005	BSc. Biotechnology, Ramnarain Ruia College, University of Mumbai Percent Score: 73% (First Class)

**PROFESSIONAL HISTORY**

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2012-Present	Research Assistant, Morris Laboratory, Dept. of Biology, UKY
2010-2011	Teaching Assistant, BIO 304 Principles of Genetics, Dept. of Biology, UKY (2 semesters) <ul style="list-style-type: none"><li>Assisted in execution of the Pilot Genetics Laboratory Course</li></ul>
2010	Teaching Assistant, BIO 151 Introductory Biology lab. I Course, Dept. of Biology, UKY
2009	Teaching Assistant, BIO 153 Introductory Biology lab. II Course, Dept. of Biology, UKY
2007-2009	Junior Research Fellow, National Institute for Research in Reproductive Health, India

**PUBLICATIONS**

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- Lakshmi Pillai-Kastoori**, Wen Wen, Stephen G. Wilson, Erin Strachan, Adriana Lo-Castro, Marco Fichera, Sebastiano A. Musumeci, Ordan J. Lehmann, and Ann C. Morris. Sox11 is required to maintain proper levels for Hedgehog signaling during vertebrate ocular morphogenesis. (2014). *PLoS Genet.* 2014 Jul 10;10(7):e1004491. doi: 10.1371/journal.pgen.1004491.
- Morris AC, Forbes-Osborne MA, **Pillai LS**, Fadool JM. Microarray Analysis of XOPS-mCFP Zebrafish Retina Identifies Genes Associated with Rod Photoreceptor Degeneration and Regeneration. (2011). *Investigative Ophthalmology & Visual Science*, 52(5):2255-2266.
- Lakshmi Pillai** and Bhartiya D. (2009). Stem Cell Matters to the Heart. *Nature India* (Published online).
- Kumar N, Hinduja I, Nagvenkar P, **Pillai L**, Agrawal P, Zaveri K, Mukadam L, Telang J, Desai S, Mangoli V, Mangoli R, Padgaonkar S, Kaur G, Puri C and Bhartiya D. (2009). Derivation and characterization of two genetically unique human embryonic stem cell lines on in-house derived human feeders. *Stem Cells and Development*, 18(3): 67-77.

**AWARDS AND HONOURS**

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2014	Student/Postdoc Travel Award from the Society for Developmental Biology
2104	Gertrude Flora Ribble Graduate Student Fellowship, UKY
2014-2015	The Lyman T. Johnson Graduate Student Fellowship (Competitive Renewal), UKY
2013	Ribble Travel Fellowship, Dept. of Biology, UKY

2013	Outstanding Poster Award, BGSFN, Spring Neuroscience Day, UKY
2013	The Lyman T. Johnson Graduate Student Fellowship (Competitive Renewal), UKY
2013	Ribble Summer Mini-Grant, Dept. of Biology, UKY
2012	Ribble Summer Mini-Grant, Dept. of Biology, UKY
2012	Outstanding Poster Award, BGSFN, Spring Neuroscience Day, UK
2012	Ribble Travel Fellowship, Dept. of Biology, UKY
2012	Graduate School Travel Fellowship, UKY
2012	The Lyman T. Johnson Graduate Student Fellowship, UKY
2011	The Company of Biologists, International Travel Fellowship, Cambridge, UK
2011	Ribble Travel Fellowship, Dept. of Biology, UKY
2011	International Travel Award, Banff Translational Glaucoma Meeting, Canada
2011	Ribble Summer Mini-Grant, Dept. of Biology, UKY
2011	Poster Award, 5th annual Graduate Student Interdisciplinary Conference, UKY
2011	Outstanding Poster Award, BGSFN, Spring Neuroscience Day, UKY

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## PRESENTATIONS

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1. **Lakshmi Pillai-Kastoori**, Wen Wen, Luke J. Lewis, Erin Strachan, and Ordan J. Lehmann, Ann C. Morris. (2013). *Sox11* drives ocular morphogenesis by regulating levels of Hedgehog signaling. Association for Research in Vision and Ophthalmology, Seattle, WA. (Poster).
2. Wen Wen, **Lakshmi S. Pillai-Kastoori**, Ann C. Morris. (2013). *Sox4* Regulates Ocular Morphogenesis in Zebrafish. Association for Research in Vision and Ophthalmology, Seattle, WA. (Poster).
3. **Lakshmi Pillai-Kastoori**, Wen Wen, Luke J. Lewis, Erin Strachan, and Ordan J. Lehmann, Ann C. Morris. (2013) *Sox11* drives ocular morphogenesis by regulating levels of Hedgehog signaling. Bluegrass Society for Neuroscience Spring Neuroscience Day, UKY. Lexington, KY (Poster).
4. Wen Wen, **Lakshmi S. Pillai-Kastoori**, Ann C. Morris. (2013). *Sox4* Regulates Ocular Morphogenesis in Zebrafish. Bluegrass Society for Neuroscience Spring Neuroscience Day, Lexington, KY. (Poster).
5. **Lakshmi Pillai**, Wen Wen, Ann Morris. (2012). *Sox11* is required for proper optic fissure closure and photoreceptor development. Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. (Paper).
6. **Lakshmi Pillai**, Wen Wen, Ann Morris. (2012). Role of *sox11* in ocular development. Bluegrass Society for Neuroscience Spring Neuroscience Day, Lexington, KY. (Poster).
7. **Lakshmi Pillai**, Wen Wen, Ann Morris. (2011). Role of *sox11* in ocular development. Banff Translational Glaucoma Meeting, University of Alberta, Canada. (Poster).
8. **Lakshmi Pillai**, Joshua Lau, Ann Morris. (2011). Role of *sox11* during ocular development and rod photoreceptor regeneration in zebrafish. 5th annual Graduate Student Interdisciplinary Conference. Lexington, KY. (Poster).
9. **Lakshmi Pillai**, Joshua Lau, Ann Morris. (2011). Role of *sox11* during ocular development and rod photoreceptor regeneration in zebrafish. Bluegrass Society for Neuroscience Spring Neuroscience Day, Lexington, KY. (Poster).

10. **Lakshmi Pillai**, Joshua Lau, Ann Morris. (2011). Role of *sox11* during ocular development and rod photoreceptor regeneration in zebrafish. Biology Graduate Student Association Open House, UKY. (Poster).
11. Ann C. Morris, **Lakshmi Pillai**, David Mari, and James M. Fadool. (2010). Sox11 Expression in the Zebrafish Eye Suggests a Role in Retinal Development and Rod Regeneration. The Association for Research in Vision and Ophthalmology. Fort Lauderdale, FL (Poster).

## SERVICE

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1. 2013: Gear UP UKY (Orientation for Middle School Students), UKY
2. 2013: Science Fair Judge. Arlington Elementary School, Lexington, KY
3. 2012: Science Fair Judge. Arlington Elementary School, Lexington, KY
4. 2012: Treasurer. Biology Graduate Student Association, UKY
5. 2011: Science Fair Judge. Ashland Elementary School, Fayette County, Kentucky
6. 2011: Cat's Day Out (Orientation for potential first generation college aspirants), UKY
7. 2010: Publicity Manger. Indian Student Association, UKY
8. 2010: Dean's List Reception and Family Weekend Reception, UKY

## PROFESSIONAL MEMBERSHIPS

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1. 2011-2013: Association for Research in Vision and Ophthalmology
2. 2010-Present: Bluegrass Chapter of the Society for Neuroscience

## RESEARCH EXPERIENCE

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Doctoral Research: Advisor: Ann C. Morris. Dept. of Biology, UKY

- Determine the role of the transcription factor Sox11 during early eye development and photoreceptor development.
- Generate *sox11a* and *sox11b* zebrafish mutants using custom TAL- endonuclease (TALENs) technology.

Junior Research Fellowship: Advisor: Dr. Deepa Bhartiya. Stem Cell Biology Laboratory, NIRRH, India

- Characterization of the human embryonic stem cell lines (KIND-1 and KIND-2). (Analysis of pluripotent state markers)
- Compared protocols to differentiate KIND-2 cell line into cardiac progenitor cells.

## MENTORING

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1. 2013-Present: Mallika Gopalaiahgari. BIO 395, Independent Research Program, Department of Biology, UKY
2. 2012-2013: Luke Lewis. BIO 395, Independent Research Program, Department of Biology, UKY
3. 2010-2011: Joshua Lau. BIO 395, Independent Research Program, Department of Biology, UKY