The Faculty of Medicine of Harvard University
Curriculum Vitae

Name: GUNAGE RAJESH DATTARAM

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Education:

2009-2015	PhD	Developmental Biology	NCBS-TIFR	Degree awarded 2016

Postdoctoral Training:

YEAR	TITLE	FIELD OF STUDY	INSTITUTION
FEB 2015-MARCH 2017	POSTDOC	MUSCLE REGENERATION	NCBS-TIFR, INDIA
April-2017	POSTDOC	Blood Stem cells and RNA biology	Boston children's hospital, HMS, USA

Faculty Academic Appointments:

Year	Position	Institution
2016-2017	Visiting faculty	Dr. Vikram Sarabhai Institiute of Cell And Molecular Biology, Faculty of Science, The Maharaja Sayajirao University of Baroda, Gujarat , India.

Report of Local Teaching and Training

Teaching of Students in Courses:

YEARS	COURSE TITLE	LOCATION
	AUDIENCE/STUDENTS	**LEVEL OF EFFORTS**
2014	Benny Shilo international course on Developmental Biology	3hr session for 8days
2015	Behavior and Developmental course	1h each for 8weeks
2022	Cell and molecular biology, Instructor.	Scienspur- Harvard Lakshmi Mittal south India institute
2022	Developmental biology, Instructor	Scienspur- Harvard Lakshmi Mittal south India institute
2023-onwards	Course Director- New Age molecular biology	Scienspur- Harvard Lakshmi Mittal south India institute
2024	Lodha genius programs-Ashoka university, Instructor and mentor	LGP- Ashoka Univerisity, India

Other Mentored Trainees and Faculty:

2014 (3 months)	Mentored John Ostrominski, Harvard trainee
2021-2022	Mentored Mackenzie Smith
2023	Mentored Katie Koczirka
2022-2024	Mentored Kenny Chen

<u>Report of Regional, National and International Invited Teaching and Presentations</u>

No presentations below were sponsored by outside entities

Those presentations below sponsored by outside entities are so noted and the sponsor(s) is (are) identified.

National

Year	Title of presentation or name of course/ Type of presentation/role(s) (note if presentation the result of a selected abstract)

2015	InSDB-2015 Biennial meeting, CCMB, India- delivered a research talk
2016	Delivered talk on- Imaging at greater depth- Advancements in the genetic labeling techniques
2016	Delivered talk on- A novel muscle stem cell- Paradigm shift in the muscle development
2016	Flymeet, IIT Kanpur, India- Talks and poster presentation
2016	Paradigm shift in the muscle development Advancements in Genetics- From Morgan to Jennifer Doudna MSU, Baroda, Gujrat
2016	Discovery of stem cells- a paradigm shift in Muscle development MSU, Baroda, Gujrat
2016	DISCOVERY OF SATELLITE CELL AND REGENERATION- A PARADIGM SHIFT IN THE MUSCLE DEVELOPMENT-REPAIR OF DROSOPHILA Tata institute for fundamental research, Mumbai, India

2018	How does Human blood get its red color?- a tale from RNA perspective. TIFR Hyderabad, India
2018	How does Human blood get its red color?- a tale from RNA perspective. NCBS, Bangalore, India
2018	How does Human blood get its red color?- a tale from RNA perspective. IISER-Pune, India
2022	Talk-Modern medicine and stem cell therapies. K.T.H.M. college, Nashik, Maharashtra

International

Year	Title of presentation or name of course/ Type of presentation/role(s) (note if presentation the result of a selected abstract)
2014	EMBO Conference, Molecular biology of muscle development and regeneration
2015	GORDON research seminar-2015 Poster presentation
2015	GORDON RESEARCH CONFERENCE-2015 Poster presentation
2015	ISSCR2015 Annual Meeting- Delivered an oral talk on- NEW NICHE AND NOVEL STEM CELL DURING DEVELOPMENT OF DROSOPHILA MUSCULATURE
2016	ISSCR 2016 Poster DISCOVERY OF SATELLITE CELL AND REGENERATION- A PARADIGM SHIFT IN THE MUSCLE DEVELOPMENT-REPAIR OF DROSOPHILA
2018	Poster presentation, Globin conference, Oxford, UK
2019	Talk, Red Cells GRS, Salve Regina, Rhode Island
2022	ISSCR 2022- Talk selection, San Francisco, USA
2022	Distinguished Abstract Merit award, ISSCR, San Francisco, USA
2022	Poster and Talk award, ASCB 2022, Washington, DC
2023	Talk and Poster award, Gordan research conference, Salve regina, RI
2024	Talk- Gordan research conference, Salve regina, RI

Report of Scholarship

Peer-Reviewed Scholarship in print or other media:

1. **Gunage, R.D.,** Heinrich Reichert, K. VijayRaghavan **(2014).**

   Identification of a new stem cell population that generates Drosophila flight muscles. eLife , 2014;3:e03126. http://elifesciences.org/content/3/e03126

2. Chaturvedi, D., Reichert, H., **Gunage, R.D.,*** and VijayRaghavan, K. **(2017).**

   Identification and functional characterization of muscle satellite cells in Drosophila. Elife *6*, e30107. https://elifesciences.org/articles/30107

   *-Equal contribution and senior author

3. **Gunage, R.D.,** Dhanyasi, N., Reichert, H., and VijayRaghavan, K. **(2017).**

   Drosophila adult muscle development and regeneration. Semin. Cell Dev. Biol. *72*.

   https://www.sciencedirect.com/science/article/pii/S1084952117305426

4. Kunal Chakraborty,[1,2] K. VijayRaghavan,[1,*] and **Gunage, R.D. * (2018)**

   A Method to Injure, Dissect and Image Indirect Flight Muscle of *Drosophila*

   Bio Protoc. 2018 May 20; 8(10): e2860.

   https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8275216/

   *** - Publications as a senior author on the study**

5. Rubul Mout, Ran Jing, Emily D Egan, Helen Eisenach, Mohamad Ali Toufic Najia, Luca Hensch, Trevor Bingham, Martin A. Kononov, **Rajesh Gunage**, Yunliang Zhao, Natasha I Edman, Thorsten M Schlaeger, Leonard I Zon, Trista E North, Urban Lendahl, David Baker, Stephen C Blacklow, George Q Daley **(2024).**

Design of a Soluble Multivalent Notch Agonist

https://www.biorxiv.org/content/10.1101/2024.08.07.607099v1

6. Tianxiao Han, **Rajesh D Gunage**, Ran Jing, Alexandra F Corbin, Kenny Zhi Ming Chen, Yang Tang, Olivia Stockard, Song Yang, Yi Zhou, George Q Daley, Thorsten M Schlaeger, Leonard I Zon **(2024).**

In Vivo Reprogramming of Adult Liver Sinusoidal Vascular Endothelial Cells into a Hematopoietic Stem and Progenitor Cell Niche (Under preparation)

https://www.sciencedirect.com/science/article/abs/pii/S0006497123106720

7. Rajesh Gunage, Leonard I Zon

Role of RNA modifications in Blood development and Regeneration (2024).

https://www.sciencedirect.com/science/article/abs/pii/S0301472X24001383

8. Rajesh Gunage, Shuibin Lin, Avik Choudhary, Mackenzie Smith, David Wiley, Stephen Coyne, Tianxio Han, Arish Shah, Song Yang, Yi Zhou, Eliezer Calo, Richard Gregory, Leonard Zon

m6A Mediated Ribostasis of RNA Stress Granule Assembly Governs Blood Development and Regeneration (Resubmission) (2024).

https://www.sciencedirect.com/science/article/pii/S000649712304747X

Review work for scientific journals-

1. A reviewer at elife journal (2014 onwards-)
2. A reviewer at Frontiers in Cell and Developmental biology (2020 onward-)
3. A reviewer at Bio-protocol (2020 onward-)
4. A reviewer at Blood Journal (2019)
5. A reviewer at Frontier cancer (2024)

Scholarship without named authorship

- Council for scientific and industrial research-National eligibility test (CSIR-NET)
- Department of Biotechnology- Junior research fellowship (DBT-JRF)

Non-peer reviewed scholarship in print or other media:

1. Identification and Functional Characterization of Muscle Satellite Cells in Drosophila
RAJESH D. GUNAGE, Heinrich Reichert, K. VijayRaghavan
doi: https://doi.org/10.1101/037838

Thesis: Novel muscle stem-cell lineages form flight muscles of *Drosophila melanogaster*

Abstracts, Poster Presentations and Exhibits Presented at Professional Meetings:

Newspaper and other coverage of my research work-

1. https://scisoup.org/article/2017/fly-stem-cells-may-help-in.html

2. https://www.thehindubusinessline.com/news/science/stem-cell-discovery-in-fruit-flies-may-help-understand-muscle-disorders-in-humans/article9927649.ece

3. https://www.thehindu.com/sci-tech/health/stem-cell-aid-for-dystrophy/article19940768.ece

Science outreach and courses conducted

1. **Scisoup India**- http://www.scisoup.org/people.html

2. **Scienspur- Harvard Lakshmi Mittal south India institute**: https://www.scienspur.org/instructors

3. **Modern medicine lecture series in collaboration with Dr. Rubul Mout** https://scholar.harvard.edu/rubulmout/teaching

Science Blog articles-

1. https://scisoup.org/article/2021/blood-stem-cell-learns-from-its-environment-how-to-boost-the-immunity.html
2. https://scisoup.org/article/2021/plant-stress-response-and-memory-pathways-may-be-interconnected-by-prion-like-proteins.html
3. https://scisoup.org/article/2021/Scientists-untangle-brain-disorder-mystery-impacting-therapeutic-enigma.html
4. https://scisoup.org/article/2021/Low-Oxygen-in-breast-cancer-is-harmful-finds-IISER-Bhopal-Scientists.html
5. https://scisoup.org/article/2021/bacterial-conflicts-offer-a-cure-to-urinary-tract-infections.html
6. https://scisoup.org/article/2020/head-and-neck-cancer-metastasizes-using-a-new-epigenetic-trick.html
7. https://scisoup.org/article/2020/new-insights-into-signalling-environment-around-blood-stem-cells.html
8. https://scisoup.org/article/2020/insect-study-reveals-secrets-of-brain-function.html
9. https://scisoup.org/article/2020/tb-pathogen-targets-immune-cells-that-eat-more.html
10. https://scisoup.org/article/2020/asthma-medicine-mode-of-action-revealed.html
11. https://scisoup.org/article/2020/a-day-in-the-life-of-covid-19-doctors.html

Scientific Administrative roles-

1. Board member at **Scienspur- Harvard Lakshmi Mittal South India Institute** https://www.scienspur.org/advisory-committee
2. Director Instructor/faculty hiring- **Scienspur- Harvard Lakshmi Mittal South India Institute**