

SUJATHA JAGANNATHAN

University of Colorado Anschutz Medical Campus
Assistant Professor

EDUCATION AND TRAINING

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|---|--------------------------|---------|-----------|
| Anna University, Chennai, India | Industrial Biotechnology | B. Tech | 2006 |
| Duke University, Durham, NC | Cell Biology | PhD | 2013 |
| Fred Hutch Cancer Res Center, Seattle, WA | mRNA surveillance | Postdoc | 2013-2017 |

PROFESSIONAL APPOINTMENTS

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| Graduate Research Assistant | Duke University | 2006-2013 |
| Postdoctoral Fellow | Fred Hutch Cancer Res Center | 2013-2017 |
| Assistant Professor | University of Colorado Anschutz Medical Campus | 2018- |

HONORS AND AWARDS

- *Summer Research Fellowship*, Indian Academy of Sciences, 2004
- *Graduated First Class with Distinction*, Anna University, Chennai, India, 2006
- *Grant-in-Aid of Research Award*, Sigma Xi national chapter, 2011
- *Jo Rae Wright Prize for the Best Poster presentation*, Duke University, Durham, NC. 2012
- *William J. Griffith University Service Award for Outstanding Service to Duke Community*, 2013
- *RNA Society Award for the Best Poster Presentation*, RNA stability meeting, Estes Park, CO. 2015
- Recognized as an *Outstanding Postdoc* at the Fred Hutch Postdoc Appreciation Week. 2016, 2017
- *FSHD Society Young Investigator Award*, FSHD Society, 2020
- *BBA Rising Star in Biochemistry and Biophysics - Molecular Basis of Disease*, 2022

PUBLICATIONS

Pubmed: <https://www.ncbi.nlm.nih.gov/myncbi/sujatha.jagannathan.1/bibliography/public/>

Google Scholar: <https://scholar.google.com/citations?user=AhRVE-MAAAAJ&hl=en>

ORCID: <https://orcid.org/0000-0001-9039-2631>

Notation: #denotes Corresponding author; * denotes Equal Contribution

Research articles

1. [Preprint] Campbell AE*, Dyle MC*, Calviello L*, Matheny T, Cortazar MA, Forman T, Fu R, Gillen AE, Floor SN, and **Jagannathan S#**. The myopathic transcription factor DUX4 induces the production of truncated RNA-binding proteins in human muscle cells. *bioRxiv*. 2021 <https://doi.org/10.1101/2021.06.28.450189>
2. Child JR, Chen Q, Reid DW, **Jagannathan S#**, Nicchitta CV#. Recruitment of endoplasmic reticulum-targeted and cytosolic mRNAs into membrane-associated stress granules. *RNA*. 2021; rna.078858.121.
3. **Jagannathan S#**, Ogata Y, Gafken PR, Tapscott SJ, and Bradley RK. Quantitative proteomics reveals key roles for post-transcriptional gene regulation in the molecular pathology of FSHD. *Elife*. 2019; 8:e41740.

4. Campbell AE, Shadle SC, **Jagannathan S**, Lim JW, Resnick R, Tawil R, van der Maarel SM, Tapscott SJ. NuRD and CAF-1-mediated silencing of the D4Z4 array is modulated by DUX4-induced MBD3L proteins. *Elife*. 2018 Mar 13;7. pii: e31023.
5. Feng Q, **Jagannathan S**, and Bradley R. The RNA Surveillance Factor UPF1 Represses Myogenesis via Its E3 Ubiquitin Ligase Activity. *Molecular cell*. 2017; 67(2):239-251.e6.
6. Shadle SC, Zhong JW, Campbell AE, Conerly ML, **Jagannathan S**, Wong CJ, Morello TD, and Tapscott SJ. DUX4-induced dsRNA and MYC mRNA stabilization activate apoptotic pathways in human cell models of facioscapulohumeral dystrophy. *PLoS Genetics*. 2017; 13(3):e1006658.
7. **Jagannathan S** and Bradley R. Translational plasticity facilitates the accumulation of nonsense genetic variants in the human population. *Genome Res*. 2016 Sep 19.
8. **Jagannathan S***, Shadle SS*, Resnick R, Snider L, Tawil RN, van der Maarel SM, Bradley RK and Tapscott SJ. Model systems of DUX4 expression recapitulate the transcriptional profile of FSHD cells. *Hum Mol Genet*. 2016 Aug 15.
9. Feng Q, Snider L, **Jagannathan S**, Tawil R, van der Maarel SM, Tapscott SJ, Bradley RK. A feedback loop between nonsense-mediated decay and the retrogene DUX4 in facioscapulohumeral muscular dystrophy. *Elife*. 2015 Jan 7;4.
10. **Jagannathan S**, Reid DW, Cox AH, Nicchitta CV. De novo translation initiation on membrane-bound ribosomes as a mechanism for localization of cytosolic protein mRNAs to the endoplasmic reticulum. *RNA*. 2014 Oct; 20(10):1489-98.
11. **Jagannathan S***, Hsu JC*, Reid DW, Chen Q, Thompson WJ, Moseley AM, Nicchitta CV. Multifunctional roles for the protein translocation machinery in RNA anchoring to the endoplasmic reticulum. *J Biol Chem*. 2014 Sep 12; 289(37): 25907-24.
12. Lacsina JR, Marks OA, Liu X, Reid DW, **Jagannathan S**, Nicchitta CV. Premature translational termination products are rapidly degraded substrates for MHC class I presentation. *PLoS One*. 2012; 7(12):e51968.
13. Chen Q*, **Jagannathan S***, Reid DW*, Zheng T, Nicchitta CV. Hierarchical regulation of mRNA partitioning between the cytoplasm and the endoplasmic reticulum of mammalian cells. *Mol Biol Cell*. 2011 Jul 15; 22(14):2646-58.

Reviews, Previews, and Book Chapters

1. **Jagannathan S**. The evolution of DUX4 gene regulation and its implication for facioscapulohumeral muscular dystrophy. *Biochim Biophys Acta Mol Basis Dis*. 2022; May 1;1868(5):166367. (Review Article; 2022 BBA Rising Stars in Biochemistry and Biophysics Special Collection)
2. **Jagannathan S***, de Greef JC*, Hayward LJ, Yokomori K, Gabellini D, Mul K, Sacconi S, Arjomand J, Kinoshita J, Harper SQ. Meeting report: the 2021 FSHD International Research Congress. *Skeletal Muscle*. 2022; Jan 17;12(1):1. (Conference Proceedings)
3. **Jagannathan S**, Ramachandran S, and Rissland OS. Slow down to catch up. *Cell*. 2019; 178(4): 774-776. (Preview)
4. Dyle MC, Kolakada D, Cortazar MA, **Jagannathan S***. How to get away with nonsense: Mechanisms and consequences of escape from nonsense-mediated RNA decay. *Wiley Interdiscip Rev RNA*. 2019 Jul 29:e1560. (Review article)
5. **Jagannathan S** and Bradley RK. Congenital myotonic dystrophy-an RNA-mediated disease across a developmental continuum. *Genes & Development*. 2017; 31(11):1067-1068 (Preview)
6. **Jagannathan S**, Nwosu C, Nicchitta CV. Analyzing mRNA localization to the endoplasmic reticulum via cell fractionation. *Methods Mol Biol*. 2011; 714:301-21. (Book Chapter)

SELECTED TALKS AND SEMINARS

- Oct 2021 The RNA Institute, SUNY Albany; virtual (*Invited Speaker*)
- Sep 2021 University of Illinois at Urbana-Champaign, Biochemistry Department; virtual (*Invited Speaker*)
- Aug 2021 CSHL RNA Processing Meeting; virtual (*Session Chair & Speaker*).
- July 2021 ACS Chem Bio Connections Summer Seminar Series; virtual (*Invited Speaker*)
- July 2021 FSHD International Research Congress; virtual (*Session Chair*)
- Feb 2021 Emory University Biochemistry Department virtual (*Invited Speaker*)
- June 2020 FSHD Circulating Biomarker Workshop; virtual (*Invited Speaker and Panelist*)
- March 2020 Maximizing Access to Research Careers (MARC) Program Seminar Series, California State University, Fullerton, CA (*Invited speaker*)
- March 2020 Metropolitan State University of Denver, Denver CO (*Invited speaker*)
- Jan 2020 Pharmacology Department, University of Washington, Seattle, WA (*Invited speaker*)
- Dec 2019 Uniformed Services University, Bethesda, MD (*Invited speaker*).
- May 2019 RNA Interest Group, University of Utah, Salt Lake City, UT (*Invited speaker*).
- April 2019 Stowers Institute for Medical Research, Kansas City, MO (*Invited speaker*).
- Feb 2019 GRC on Translation machinery in health and disease; Galveston, TX (*Invited speaker*).
- June 2018 FASEB SRC on Ubiquitin and Cellular Regulation, Snowmass, CO (*Talk*).
- Oct 2017 Symposium on RNA Biology XII: RNA Tool and Target; Chapel Hill, NC (*Talk*).
- May 2017 Western Washington University, Bellingham, WA (*Invited speaker*).
- Nov 2016 FSHD International Research Consortium Workshop; Boston, MA (*Talk*).
- March 2017 University of California Santa Cruz, Santa Cruz, CA (*Invited speaker*).
- Feb 2017 RNA Therapeutics Institute, University of Massachusetts Medical School, Worcester, MA (*Invited speaker*).
- Feb 2017 Department of Biochemistry and Biophysics, University of Pennsylvania, Philadelphia, PA (*Invited speaker*).
- Jan 2017 University of Washington at St. Louis, St. Louis, MI (*Invited speaker*).
- Jan 2017 Institute of Molecular Biology, University of Oregon, Eugene, OR (*Invited speaker*).
- Jan 2017 Department of Genetics, Rutgers University, Piscataway, NJ (*Invited speaker*).
- Dec 2016 RNA Bioscience Initiative, CU Anschutz, Aurora, CO (*Invited speaker*).
- Nov 2016 FSHD International Research Consortium Workshop; Boston, MA (*Talk*).
- Dec 2015 The Center for NeuroGenetics 2nd Annual Brainstorm Symposium; Gainesville, FL (*Invited speaker*).
- Oct 2015 FSHD International Research Consortium Workshop; Boston, MA (*Talk*).
- Oct 2011 Symposium on RNA Biology IX: RNA Tool and Target; RTP, NC (*Talk*).

RESEARCH SUPPORT AND FELLOWSHIPS

- 2021 - 2023 Research Grant from FSHD Society.
- 2020 - 2021 Research Grant from Friends of FSH Research.
- 2019 - 2023 National Institute of General Medical Sciences, Maximizing Investigators' Research, Award for Early Stage Investigators (R35).
- 2018 - 2019 Research Grant from Friends of FSH Research.

2014 - 2017 FSH Society Postdoctoral Fellowship.
 2004 Summer Research Fellowship, Indian Academy of Sciences, India

TEACHING

Fall '20 Instructor; Informatics and Statistics for Molecular Biology (MOLB 7950)
 Spring '19; Course Director & Instructor, Computational biology for biologists with R, University of Colorado Denver Graduate School (MOLB 7910)
 '20; '22
 Fall '18; '19; Instructor; Core Topics in Biomedical Sciences University of Colorado Denver Graduate School (IDPT 7810-008)
 '21
 Spring '17 Science Teaching Experience for Postdocs (STEP) program, University of Washington, Seattle, WA. (Designed and co-taught a 10-week class on Precision Medicine to a class of 25 undergraduate seniors majoring in Biology).

MENTORING

2020 - *Mentor*, The RNA Society Mentoring program.
 2019 - *Mentor*, WiSTEM at CU Anschutz, Aurora, CO.
 2019 - 2020 *Mentor*, Mentor Collective, CU Anschutz, Aurora, CO.
 2017 - 2018 *Mentor*, The New York Academy of Sciences (NYAS) Next Scholars Program.
 2010 - 2011 *Mentor*, Women and Mathematics Mentoring Program, Durham County, NC. (Mentored three under-represented minority 8th grade girls).

SERVICE

International

2021 *Ad hoc grant reviewer* for UK Muscular Dystrophy Association.
 2021 - current *Member*, International biomarker working group for FSHD Clinical Trial Research Network (CTRN).
 2020 - current *Member*, RNA Society Diversity, Equity, and Inclusion Committee
 2020 *Ad hoc Member of* RNA Society Awards Nomination Committee
 2016 - *Ad hoc Reviewer* for Nature Biotechnology; Nucleic Acids Research; Genetics and Molecular Biology; PLoS Genetics; Nature Communications; Molecular Cell; Trends in Genetics.

National

2022 *Ad hoc grant reviewer* for NSF (MCB; Cellular Dynamics and Function Cluster).
 2021 *Ad hoc grant reviewer* for Maryland Industrial Partnerships (MIPS).
 2020 *Ad hoc reviewer* for Cystic Fibrosis Foundation Nonsense Mutation Therapies grant review committee.
 2019 *Ad hoc reviewer* of NIH Study section (MGB), Bethesda, MA.

Regional

2021/2022 *Member*, BMG Faculty Search Committee, CU Anschutz, Aurora, CO.
 2020 - *Member*, BMG Diversity, Equity, and Anti-Racism (DEA-R) committee, CU Anschutz, Aurora, CO.
 2020 *Member*, Dean's taskforce to identify caregiver options, CU Anschutz, Aurora, CO.
 2019/2020 *Member*, Molecular Biology Admissions Committee, CU Anschutz, Aurora, CO.
 2019 *Panelist*, Career panel, International Researcher Week, CU Anschutz, Aurora, CO.

- 2019 *Panelist*, Postdoc career panel, Postdoc Appreciation Week, CU Anschutz, Aurora, CO.
- 2019 - current *Member*, CSD Graduate Advisory Committee, CU Anschutz, Aurora, CO.
- 2019 *Member*, CSD Preliminary Exam Committee, CU Anschutz, Aurora, CO.
- 2018/2019 *Member*, Structural Biology Initiative Faculty Search Committee, CU Anschutz, Aurora, CO.
- 2018 - current *Co-organizer*, Colorado RNA Salon, RNA Society.
- 2018 - current *Member*, BMG Seminar Committee, CU Anschutz, Aurora, CO.
- 2018 - current *Member*, MOLB Curriculum Committee, CU Anschutz, Aurora, CO.
- 2018, 2019 *Reviewer*, RNA Bioscience Initiative Grants Committee, CU Anschutz, Aurora, CO.
- 2018 *Reviewer*, RNA Bioscience Initiative Scholar Award committee, CU Anschutz, Aurora, CO.
- 2017 *Reviewer*, Weintraub Graduate Student award, Fred Hutch Cancer Research Center, Seattle, WA.
- 2016 *Reviewer*, Hutch United Fellowships for under-represented minorities, Fred Hutch Cancer Research Center, Seattle, WA.

COMMUNITY OUTREACH

- July 2021 *Speaker*, CSD Developing Scholars Program.
- June 2021 *Invited Speaker*, Colorado FSHD 360 Conference, Parker, CO.
- Feb 2021 *Invited Speaker*, Friends of FSH Research Patient Connect Conference; virtual
- Jan 2020 *Invited Speaker*, FSHD Patient Information Meeting, Friends of FSH Research Fundraiser, Seattle, WA.
- 2019, 2021 *Invited Speaker*, FSHD Walk and Roll Fundraiser, Castle Rock, CO.
- June 2019 *Host and Speaker*; World FSHD Day - Patient connect event, CU Anschutz, Aurora, CO. Brought together the local FSHD patient and research community for an evening of talks, lab tours, and activities.
- Nov 2018 *Curator* for BioTweeps, a twitter community of biologists with 18,000 followers (& growing). During the course of a week, I discussed my work, latest developments in RNA biology and its applications to disease research, and about being a scientist.
- Oct 2018 *Invited speaker* for the FSH Society Denver chapter launch, Denver, CO.
- April 2018 *Invited speaker* at the Denver FSHer meeting; Discussed the current state of FSHD research and answered questions from patients and families. Denver, CO.
- 2018, 2019 *Skype-a-scientist facilitator*; Discussed various topics in cell biology and about being a Cell Biologist with a 7th grade classroom for the Skype-a-scientist program.