

## Sujatha Jagannathan

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### EDUCATION AND TRAINING

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- 2013 – present**      **Fred Hutchinson Cancer Research Center, Seattle, WA**  
*FSH Society Postdoctoral Fellow*
- 2006 – 2013**      **Duke University, Durham, NC**  
Ph.D. in Cell Biology
- 2004**              **Center for DNA Fingerprinting, Hyderabad, India**  
*Summer Research Fellow of Indian Academy of Sciences*
- 2002 - 2006**      **Center for Biotechnology, Anna University, Chennai, India**  
B. Tech in Industrial Biotechnology

### FELLOWSHIPS, HONORS, AND AWARDS

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- 2016, 2017**      Recognized as an **Outstanding Postdoc** at the FHCRC Postdoc Appreciation Week (nominated by peers and colleagues)
- 2014 – present**      **FSH Society Postdoctoral Fellowship**
- 2013**              **William J. Griffith University Service Award** for Outstanding Service to Duke Community (annually presented to a select number of graduating students for service and contributions to Duke University and larger communities)
- 2011**              **Grant-in-Aid of Research Award**, Sigma Xi national chapter
- 2010**              **Graduate student mini-grant**, Duke Chapter of Sigma Xi, Durham, NC.
- 2006**              **Graduated First Class with Distinction**, Anna University, Chennai, India (Equivalent of *summa cum laude*)
- 2004**              **Summer Research Fellowship**, Indian Academy of Sciences, India

### PUBLICATIONS

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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.

**Jagannathan S** and Bradley RK. Congenital myotonic dystrophy-an RNA-mediated disease across a developmental continuum. *Genes & development*. 2017; 31(11):1067-1068

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.

**Jagannathan S** and Bradley R. Translational plasticity facilitates the accumulation of nonsense genetic variants in the human population. *Genome Res*. 2016 Sep 19.

**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. (\*Equal Contribution)

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.

**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.

**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. (\*Equal Contribution).

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.

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. (\*Equal Contribution).

**Jagannathan S**, Nwosu C, Nicchitta CV. Analyzing mRNA localization to the endoplasmic reticulum via cell fractionation. *Methods Mol Biol.* 2011; 714:301-21.

#### INVITED TALKS AND ORAL PRESENTATIONS

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**Jagannathan S.** "When to shoot the messenger RNA: Understanding the rules and exceptions of mRNA surveillance", 2017 Symposium on RNA Biology XII: RNA Tool and Target; October 2017; Chapel Hill, NC; **Selected for oral presentation**

**Jagannathan S**, Tapscott ST and Bradley RK. "Disruption of RNA and protein quality control in facioscapulohumeral muscular dystrophy", The Center for NeuroGenetics 2nd Annual Brainstorm Symposium; December 2015, Gainesville, FL. **Invited talk**

**Jagannathan S**, Feng Q, Snider L, Tapscott ST and Bradley RK. "Quantitative proteomic analysis of DUX4-expressing muscle cells reveals widespread post-transcriptional regulation", FSH Society FSHD International Research Consortium and Research Planning workshops; October 2015; Boston, MA. **Selected for oral presentation**

**Jagannathan S**, Chen Q, and Nicchitta CV. "mRNAs encoding ER-resident proteins undergo translation-independent localization to detergent resistant membrane domains of the ER", NC RNA Society Symposium on RNA Biology IX: RNA Tool and Target; October 2011; RTP, NC. **Selected for oral presentation**

#### SELECTED POSTER PRESENTATIONS

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**Jagannathan S**, Tapscott ST and Bradley RK. "When to shoot the messenger RNA: Understanding the rules and exceptions of mRNA surveillance", FHCRC Division of Human Biology Annual Retreat; 2016, Islandwood, WA. **Third Prize for Poster presentation**

**Jagannathan S**, Feng Q, Tapscott ST and Bradley RK. "Extensive post-transcriptional regulation by a myopathic transcription factor, DUX4", Gordon Research Conference on Post-transcriptional gene regulation; July 10-15, 2016, Stowe, VT.

**Jagannathan S**, Feng Q, Snider L, Tapscott ST and Bradley RK. "Inefficient nonsense-mediated RNA decay underlies perturbed proteostasis in a human myopathy", RNA stability meeting; June 2015, Estes Park, CO. **RNA Society Award for the Best Poster Presentation**

**Jagannathan S** and Nicchitta CV. "Selective recruitment of mRNAs into stress granules upon UPR induction", ASBMB special symposium on the multitasking endoplasmic reticulum in health and disease; May 2013; Warrenton, VA.

**Jagannathan S**, Chen Q, and Nicchitta CV. "Endoplasmic reticulum (ER) resident protein-encoding mRNAs undergo translation-independent localization to subdomains of the ER membrane", Cell Biology Department Retreat, Duke University 2012. **Jo Rae Wright Prize for the Best Poster presentation.**

**Jagannathan S**, Chen Q, and Nicchitta CV. "Endoplasmic reticulum (ER) resident protein-encoding mRNAs undergo translation-independent localization to subdomains of the ER membrane", ASCB Annual Meeting; December 2011; Denver CO.

**Jagannathan S**, Chen Q, Reid DW, and Nicchitta CV. "Bimodal mechanism of mRNA association with the endoplasmic reticulum (ER)", ASBMB Annual Meeting; April 2011; Washington, D. C.

**Jagannathan S**, Nwosu C, Zheng T, and Nicchitta CV. "Subcellular compartmentalization of mRNA in mammalian cells", 4th RNA Stability Meeting; Oct 2010; Montreal, Canada.

#### **TEACHING, MENTORING, OUTREACH AND SERVICE ACTIVITIES**

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| <b>2017 - 2018</b> | Next Scholars program mentor, The New York Academy of Sciences   |
| <b>2017</b>        | Science Teaching Experience for Postdocs (STEP) program  |
| <b>2017</b>        | Weintraub Graduate Student Award Selection Committee   |
| <b>2016</b>        | Reviewer for Hutch United Fellowships for under-represented minorities   |
| <b>2011 – 2013</b> | Associate Faculty Member, Faculty of 1000  |
| <b>2011 – 2012</b> | Undergraduate student research mentor, Duke University   |
| <b>2010 – 2011</b> | Women and Mathematics Mentoring Program, Durham County, NC (Mentored three under-represented minority 8 <sup>th</sup> grade girls) |
| <b>2010</b>        | Cell Biology Distinguished Lecture Series Committee, Duke University, Durham, NC   |

#### **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

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RNA Society

American Society for Cell Biology

Sigma Xi, The Scientific Research Society