

Email: [anita.goyala\(at\)hest.ethz.ch](mailto:anita.goyala(at)hest.ethz.ch)**NAME: Anita Goyala****POSITION TITLE: Postdoctoral Fellow****CURRENT AFFILIATION:**

The Extracellular Matrix Regeneration Laboratory  
 ETH Zurich Department of Health Sciences and Technology  
 SLA C 8  
 Schorenstrasse 16  
 8603 Schwerzenbach-Zurich  
 Switzerland  
 Website: [www.ewaldlab.com](http://www.ewaldlab.com)

**EDUCATION:**

DURATION	INSTITUTION	DEGREE /CERTIFICATE	%
2013-2019	National Institute of Immunology (Jawaharlal Nehru University, India)	PhD	N/A
2010-2012	Dr. B.R. Ambedkar Centre for Biomedical Research (University of Delhi, India)	M.Sc Biomedical Sciences	68.16
2007-2010	Dr. B.R. Ambedkar Centre for Biomedical Research (University of Delhi, India)	B.Sc (H) Biomedical Sciences	73.50
2006-2007	Oxford Senior Secondary School (Central Board of Secondary Education)	Grade Twelfth	79.80
2004-2005	Oxford Senior Secondary School (Central Board of Secondary Education)	Grade Tenth	88

**PROJECTS UNDERTAKEN:**

- “Deciphering the role of *Caenorhabditis elegans* p53 like-1 gene (*cep-1*) in Dietary Restriction-mediated longevity assurance”  
**PhD thesis**, National Institute of Immunology, Delhi

2013-present

- “Generation of monoclonal antibodies against influenza H1N1/H5N1 virus”  
**One year project (JRF)**, National Institute of Immunology, Delhi  
Dec, 2012 –June, 2013
- “A Zebrafish model of Hereditary Hemochromatosis”  
**M.Sc dissertation**, Institute of Genomics and Integrative Biology,  
Delhi  
Dec, 2011 - May, 2012
- “Development of Neural crest Cells in Zebrafish”  
**Summer training**, Institute of Genomics and Integrative Biology,  
Delhi  
June, 2011
- “Extraction and Purification of Recombinant Enzyme L-asparaginase from *E.coli*”  
**Summer training**, Indian Institute of Technology (IIT), Delhi  
May-June 2009

**EXPERIMENTAL SKILLS and TECHNIQUES KNOWN:**

- *C.elegans* handling and maintenance
- Animal handling of mice and rabbits.
- Zebrafish Lab maintenance: breeding and feeding
- Cell culture - HEK293t handled
- Cloning techniques
- Experiments done using *C. elegans*-Life span studies using strains and RNAi , Bacterial Dilution regime(BDR), Autophagy through fluorescence Imaging, Respiration check through oroboros, Oil Red O staining, Apoptosis using transgenic strain, DCFDA assay, double mutants generated
- Learnt doing Microinjections in *C. elegans*
- Microbiology in terms of bacterial culture preparation and maintenance
- Microscopy: General microscopy, Fluorescence Microscopy, Confocal Microscopy.
- Macromolecules (Protein, DNA, RNA), analysis using Spectrophotometer or Fluorometer, Nano-drop, Electrophoresis, Qubit, Bioanalyzer
- Molecular techniques: DNA and RNA isolation, PCR, qRT-PCR, cDNA preparation, Elisa, Western blotting.
- Affinity chromatography, Gel filtration chromatography.
- Protein expression and purification and then Antibody Generation in rabbits.
- Circular dichroism, Flow cytometry.
- Mice dissection and drug testing in mice, rat and rabbits in M.Sc.

- Whole mount in-situ hybridization in zebrafish embryos.
- MS Office.
- Software known: Sigma plot, Graph Pad, and Image J.
- Bioinformatics tools like BLAST, FASTA known.
- Analysed NGS-mRNA sequencing data using CLC genomics.

**CONFERENCES ATTENDED:**

- “*The Symposium on Bioinformatics :An in silico approach to Biology*”  
5 Dec, 2008 (New Delhi, India)  
Organized by BCAS, University of Delhi, India
- “*The National Conference on recent advances in Pure and Applied Chemistry*”  
24-25 Dec, 2010 (New Delhi, India)  
Organized by ACBR, University of Delhi, India
- “*The 1<sup>st</sup> Indian C. elegans Meeting*” – 40<sup>th</sup> Mahabaleshar seminar  
28 Jan – 02 Feb, 2016 (Mahabaleshwar, India)  
Organized by TIFR, India
- Presented poster in “*The 2<sup>nd</sup> Indian C. elegans Meeting*”  
23-26 Feb, 2018 (New Delhi, India)  
Organized by National Institute of Immunology, Delhi, India
- Presented poster in Science day in NII in 2018 and 2016.

**AWARDS AND HONOURS:**

- Recipient of **Bio Legend Top Presentation Award** for the BSI 5th Annual Conference: Science & Society.
- Awarded **Best poster on Science day** (2018) in NII, Delhi, India.
- Awarded **Best Worm Art** in “*The 2<sup>nd</sup> Indian C. elegans Meeting*” (2018) in NII, Delhi, India.
- Qualified **GATE** (Graduate Aptitude Test in Engineering) in Biotechnology with **98.56** percentile (2011) and **98.85** percentile (2013)
- Qualified **GRE** with Total **1110/1600** Score (Verbal-440/800, Quant-670/800) in June, 2011.
- Qualified **TOEFL** with Total **94/120** Score (Reading-25/30, Listening-24/30, Speaking-24/30, Writing-21/30) in Nov, 2011.
- Got a reward of Rs. 500 in Class Tenth for obtaining marks above 95/100 in Sanskrit.
- Secured second position for drawing a poster on SAVE WATER in a national meeting.

**LEADERSHIP SKILLS:**

- Organized the Conference on “*The 2<sup>nd</sup> Indian C. elegans Meeting*”, in National Institute of Immunology, Delhi, India in 2018.
- Organized the ACBR fest in 2012
- Was a part of the “Placement cell” in NII, Delhi, India.

**PUBLICATION:**

- Verma S, Jagtap U, **Goyala A, Mukhopadhyay A**. A novel gene-diet pair modulates *C. elegans* aging. PLoS Genet. 2018 Aug 20;14(8):e1007608
- Chamoli M\*, **Goyala A\***, Tabrez SS\*, Siddiqui AA, Singh A, Antebi A, Lithgow GJ, Watts JL and **Mukhopadhyay A** (2020) Polyunsaturated fatty acids and p38 MAPK pathway link metabolic reprogramming to cytoprotective gene expression during Dietary Restriction. *Nature Communications* 11 (1), 1-13. \*Co-first author.
- **Goyala A**, Baruah A and **Mukhopadhyay A** (2020) The genetic paradigms of dietary restriction fail to extend life span in *cep-1(gk138)* mutant of *C. elegans* p53 due to possible background mutations. **PLoS One** (in press)