

# Jayalakshmi Jagal

Researcher at University of Sharjah.

## HELLO!

My name is Jayalakshmi Jagal and I am currently working as a researcher at University of Sharjah. I am a hard-working and determined professional passionate to succeed in the dynamic field of research.

My academic pursuits have been focused in the fields of Biochemistry, Microbiology and Molecular Biology. My work experience with University of Sharjah and UAE University has enabled me to get familiar with the latest research techniques and methods under highly skilled research scholars.

## PERSONAL INFO

Gender : Female  
Date of Birth: 23 May '88  
Nationality: Indian  
Languages: English, Malayalam, Hindi & Tamil  
Marital Status: Married

## CONNECT

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## EXPERIENCE

### Research Assistant

Jun '18 – Present

Sharjah Institute of Medical Research  
University of Sharjah, U.A.E.

As a Research Assistant, my research area includes preparation of polymer nanocarriers, hydrogel scaffolds for cell-based therapy, in vitro characterization, the anticancer activity of prepared drug encapsulated polymer nanocarriers, incorporating fluorescent dye and tracking cellular uptake, preparing fluorescent images. I am also an expert in preparing all kind of nanoformulations and all of their characterizations include size, charge, PDI, entrapment efficiency, yield, stability, in vitro release, cell culture work, DNA, RNA extraction, gene expression studies, and all microbiology works. my main responsibilities include preparation of different nano formulations and their characterization, growing and maintaining cell lines and setting up experiments for measuring inhibition of cancer cells using various assays including MTT and XTT.

Expert in using a wide range of laboratory equipments like, probe ultrasonicator, bath sonicator, ultracentrifuge, freeze dryer, HPLC, UV-spectrometer, Zetasizer, Franz cells, dissolution tester, disintegration apparatus, friability tester, hardness tester, and Fluorescent Microscope.

I was fortunate enough to set up the laboratory for academic research, plan research experiments and analyze results. I also train students in safe laboratory research and maintenance procedures. I establish lab for different experiments and also take care of general maintenance of laboratory.

### Research Assistant

Oct '13 – Jan'15

Department of Physiology,  
College of Medicine and Health Sciences,  
United Arab Emirates University, Al Ain. U.A.E

As a Research Assistant, I was investigating the role of drugs that inhibit the growth of cancer using a variety of in-vitro and in-vivo techniques. My main responsibilities include growing and maintaining cell lines and setting up experiments for measuring inhibition of cancer cells using various assays such as Viacount, Nexin and Cell Cycle on the Guava Easy-Cyte Plus and analyzing and graphing the results on GraphPad Prism. I also assist on other projects within the laboratory where I am required to extract RNA, reverse transcribe and perform Gene Expression studies, Western Blotting and Immunohistochemistry. Other responsibilities include overseeing the general running of the laboratory and the training of graduate and undergraduate students conducting research projects in the laboratory.

## Publications

- Haider, M., A. Elsherbeny, **J. Jagal**, A. Hubatová-Vacková- Pharmaceuticals, and undefined 2020. n.d. "Optimization and Evaluation of Poly (Lactide-Co-Glycolide) Nanoparticles for Enhanced Cellular Uptake and Efficacy of Paclitaxel in the Treatment of Head and Neck." *Mdpi.Com*.
- W, Talaat, Aryal Ac S, Al Kawas S, Samsudin ABR, Kandile NG, Harding DRK, Ghoneim MM, Zeiada W, **J. Jagal**, Aboelnaga A, and Haider M. 2020. "Nanoscale Thermosensitive Hydrogel Scaffolds Promote the Chondrogenic Differentiation of Dental Pulp Stem and Progenitor Cells: A Minimally Invasive Approach for Cartilage Regeneration." *International Journal of Nanomedicine* 15:7775–89. doi: 10.2147/IJN.S274418.

## ACADEMICS

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| <b>Master of Science in Biotechnology - 70.00%</b> (2 <sup>nd</sup> Rank Holder)<br>St. Joseph's College, Kerala. India. | '09 - '11 |
| <b>Bachelor of Science in Zoology - 94.50%</b> (1 <sup>st</sup> Rank Holder)<br>St. Thomas College, Kerala. India.       | '06 - '09 |
| <b>Board of Higher Secondary Education - 81.80%</b><br>St. Antony's HSS, Kerala. India.                                  | '06       |
| <b>Secondary School - 84.00%</b><br>Seraphic Convent English Medium School, Kerala. India                                | '04       |

## PROJECTS

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|---|---------|
| <b>Molecular Profiling of Aquatic Bacterial Communities</b><br>National Institute of Oceanography, India.               | May '11 |
| <b>Effect of Plant Extract on Tumor Growth in Rattus norvegicus</b><br>Amala Cancer Center, Oncology Department, India. | May '10 |

## WORKSHOPS & SEMINARS

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|---|---------|
| Level 3 Award in HACCP for food manufacturing                 | Oct '12 |
| Qualified ISO 22000:2005 Food Safety management Systems       | Oct '12 |
| Summer training program in Biological Techniques              | Sep '10 |
| Modern Methods in Herbal Drug Development                     | Jan '10 |
| Fighting TB with Edible Vaccines Stem Cell Therapy and Ethics | Dec '09 |
| Wetlands of Kerala  | Dec '08 |
| Nanotechnology, Dietary factors in cancer and Bioremediation  | Oct '07 |
| Genes and Genome Research in India.                           | Aug '07 |

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