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|  |  | **Manju C abraham** |
| ProfileResearch professional with expertise in preparation and characterization of non-viral nanoparticle preparation for gene silencing in stem cells and primary tumor derived cells. Profuse experience in culture of adherent and suspension cell lines, as well as isolation of cells from primary solid tumors and other sources and their further evaluation using molecular techniques such as quantitative real time PCR, western blotting etc.ContactPHONE:**8281085659****7994020143**ADDRESS:**Cheripelil House, North Paravur, Ernakulam-683513**EMAIL: **manju.c.abraham@gmail.com**AWARDS* **Top student award** (at master’s degree) from St.Joseph’s College, Irinjalakuda, Kerala, India. (2006-2007), (2007-2008)
* **2nd rank holder** in the University of Calicut for M.Sc General Biotechnology
* **UGC JRF – Rank 63 (June 2011)**
* **Best poster award**: BiTERM International Conference held at IIT Delhi, in the area on Drug Delivery Systems
 |  | EDUCATIONAmrita Vishwa Vidyapeetham2012-2019 **Ph.D. scholar**, Amrita Centre for Nanosciences and Molecular Biology, Amrita Institute of Medical Sciences. Thesis: “Injectable nano-siRNA for treatment of glioblastoma stem cells and tumor cells”University of Calicut, Kerala, India2006-2008**, M.Sc General Biotechnology**,. Percentage: 75.04%. Thesis: “A preliminary investigation of the regulatory role of cks1 in human cdc2 using oral cancer cells” under the guidance of Dr. S. Asha Nair, Translational laboratory, Rajiv Gandhi Centre for Biotechnology, Trivandrum, Kerala, India* **RTM Nagpur University, Nagpur, India**

2003-2006 **B.Sc (Biotechnology, Zoology, and Chemistry – Triple major)**,. Percentage:65%. Thesis: “Antimicrobial activity of different plant extracts on specific strains of Bacteria” under the guidance of Dr. Avinash Upadhyay, Hislop School of Biotechnology, Nagpur, Maharashtra, IndiaWORK EXPERIENCESenior Research Fellow at Amrita Centre for Nanosciences and Research Centre, AIMS, Kochi (2018-2019) Project title: Photodynamic therapy mediated immune suppression in glioma in GMP facility* **Senior Research Fellow at Amrita Centre for Nanosciences and Research Centre, AIMS, Kochi (2015-2018)**

Project title: RNAi mediated gene silencing of glioma stem cells using siRNA nanoparticles* **Senior Research Fellow at Amrita Centre for Nanosciences and Research Centre, AIMS, Kochi (2013-2014)**

Project title: RNAi mediated gene silencing leukemia using siRNA nanoparticles* **Junior Research Fellow at Amrita Centre for Nanosciences and Research Centre, AIMS, Kochi (2012-2013).)**

Project title: RNAi mediated gene silencing leukemia using siRNA nanoparticles * **Teaching MTech graduate students on** Cancer Nanomedicine and Molecular therapeutics (2013-2019) – as part of the curriculum
* **Supervising MTech Theses** in the area of m-RNA nanoparticle-mediated immunotherapy, Nanoparticle adjuvant co-mediated mRNA vaccine development, Isolation of circulating tumor cells using marker conjugated magnetic nanoparticles.
* **Biology teacher** at Senior Secondary School, Delhi Public School, Bahrain ( 2010-2012)
* **Biology teacher** at Senior Secondary School, Infant Jesus Public School, North Paravur (2009-2010)
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SKILLS

### LANGUAGE SKILLS

### Molecular Biology Techniques

* RNA/DNA isolation
* PCR amplification
* Quantitative Real-time PCR
* BCA assay
* SDS PAGE
* Western blot and Protein detection by electrochemical luminescence
* Restriction digestion of DNA
* Ligation and transformation

### Microscopy

* Fluorescence Microscopy
* Confocal Microscopy

### Cell based techniques

* Isolation and culture of primary glioma cells
* Isolation ovarian carcinoma cells from tumor tissue
* PBMCs from peripheral blood and bone marrow
* Splenocytes from spleen
* Mesenchymal stem cells from adipose tissue and cord blood
* Maintaing cancer cell lines
* 3D culture and neurosphere culture from primary glioma cells and glioma cell lines
* Cytotoxicity evaluation on cells
* Immunostaining
* Isolation of stem cells using MACS isolation
* Live/dead assay
* Nanoparticle uptake analysis using flow cytometry analysis and confocal microscopy
* Apoptosis analysis using flow cytometry and confocal microscopy

### Material synthesi & Characterisation

* Preparation of nanoparticles
* Preparation of injectable gels
* Preparation of sample for Scanning Electron Microscope
* Preparation of sample for Transmission Electron Microscope

### *in vivo / Ex vivo*

* In vivo tumor studies in Balbc nu/nu mice (subcutaneous)
* In vivo studies in orthotopic brain tumor models in wistar rats
* Ex vivo analysis of gel diffusion in brain (rat/goat phantoms) using stereo-fluorescent microscope

English,

Hindi,

Malayalam

(Read, Write and Speak Fluently)