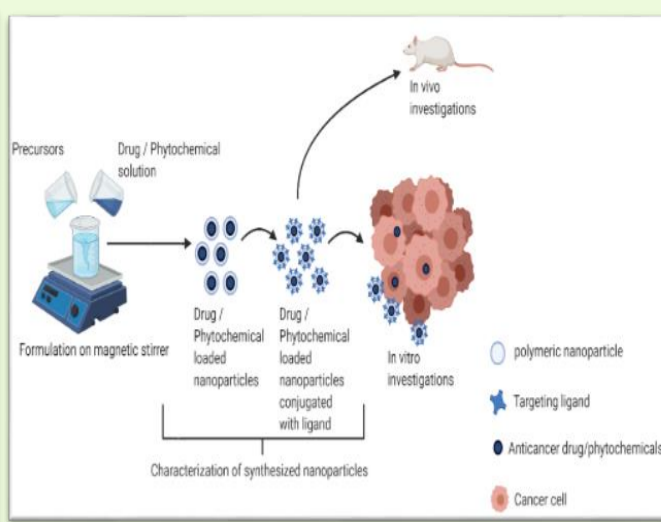
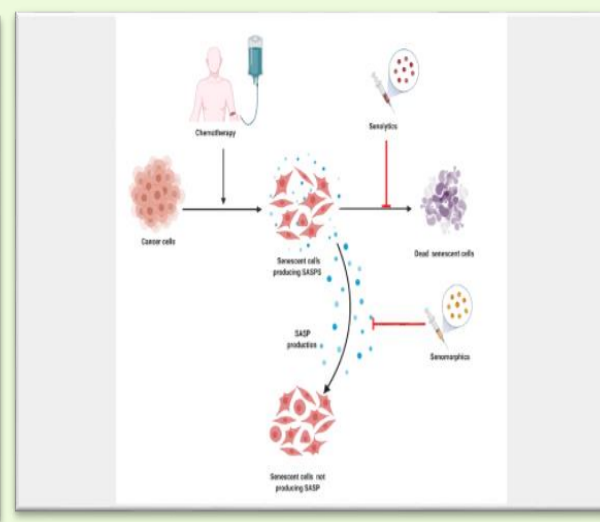


Use Of Combination Therapy Using Metal Oxide Nanoparticles To Target Cancer Cells



Development of Targeted polymeric drug delivery system for treatment of Ovarian Cancer



Exploring The Senotherapeutic Potential Of Various Bioactive Compounds On Breast Cancer Cell Lines

CURRENT MEMBERS



Dr. PURVI BHATT (Faculty) Email: purvi.bhatt@nmims.edu	MITESH JOSHI (Ph.D. Research Scholar) Email: joshimitesh777@gmail.com	NIMISH MORAMKAR (Ph.D. Research Scholar) Email: nimish_moramkar@yahoo.com	REZINA BILLIMORIA (Ph.D. Research Scholar) Email: rezinabillimoriarb@gmail.com
<i>Associate Professor & HOD in Biological Sciences</i> <i>Area of Specialization: Cancer Biology & Reproductive Biology</i> <i>ORCID No.: 0001-8142-8284</i> <i>Web of Science Researcher Id: J-8088-2014</i>	<i>My project work focuses at use of combination therapy approach to target cancer cells, specific for biological marker on cell surface. The work deals with the use of Nanotechnology to synthesize biocompatible metal oxide nanoparticles decorated with chemotherapeutic agent and study its efficacy using various invitro assays to confirm the biocompatibility and cellular toxicity towards cancer cells.</i>	<i>My project aims to develop target specific drug delivery system for treatment of ovarian cancer. Objectives of the research are to synthesize and characterize the nanoparticles followed by in vitro and in vivo investigations. This research work may help in improving the efficacy of drugs/phytochemicals while overcoming their limitations and side effects in the treatment of ovarian cancer.</i>	<i>Therapy induced senescence (TIS) is one of the forms of tumour dormancy. A subpopulation of cancer cells that escape cell death following repeated cycles of cytotoxic therapy can undergo senescence and persist for weeks, months, or years, and, under the appropriate conditions, ultimately contribute to disease recurrence. The study involves the characterization of senescent breast cancer cells after which the senotherapeutic potential of bioactive compounds on senescent breast cancer cells will be explored..</i>

ALUMNI

Name	Topic of Research	Current Affiliation
Dr. Vaibhav Jadhav	Synthesis of Arsenic Trioxide Nanoparticles and Their Effect In Vitro on Prostate Cancer	Former VP R&D Epigeneres Biotech Pvt Ltd, Mumbai (Oct 2016-Aug 2020)
Dr. Juilee Patwardhan Dange	UV-B Protective Activity and the Effect of Plant Extracts on the Regulation of Haem Oxygenase-1 Gene Via Nrf-2 and Antioxidant Response Element	Editor, Cactus Communications, Mumbai
Dr. Saniya Laheri	Deciphering the Extra-Oviductal Role of Oviductal glycoprotein 1	Publication support Specialist, Cactus Communications, Mumbai
Dr. Maneka Hoonjan	A Comparative Screening of Biocompatible Arsenic Trioxide Nanoparticles on Cancer Cell Lines	Scientific Writer, JOVE, & Former Content Specialist, Cactus Communications, Mumbai

GROUP PUBLICATIONS

- Patwardhan J, Bhatt P. Protective effect of flavonoids from *Foeniculum vulgare* against ultraviolet-B-induced oxidative stress in human dermal fibroblasts. *Biomed Res J* 2019;6:62-71. (DOI: 10.4103/BMRJ.BMRJ_22_19)
- Saniya Laheri, Nancy Ashary, Purvi Bhatt, Deepak Modi (2018). Oviductal glycoprotein 1 (OVGP1) is expressed by endometrial epithelium that regulates receptivity and trophoblast adhesion. *Journal of Assisted Reproduction and Genetics (JARG)*.Aug;35(8):1419-1429. Epub 2018 Jun 30. (<https://doi.org/10.1007/s10815-018-1231-4>) (Impact factor- 2.788).
- Maneka Hoonjan, Geetanjali Sachdeva, Sudeshna Chandra, Prashant Suresh Kharkar, Niteshkumar Sahu, Purvi J Bhatt (2018). Investigation of HSA as a biocompatible coating material for Arsenic Trioxide Nanoparticles. *Nanoscale*. 2018, 10(17), 8031 - 8041 (Impact factor- 7.36) DOI: 10.1039/C7NR09503A
- Maneka Hoonjan, Vaibhav Jadhav, Purvi Bhatt (2018). Arsenic trioxide: insights into its evolution to an anticancer agent. *JBIC Journal of Biological Inorganic Chemistry*, 23:313–329. (Impact factor - 2.89). <https://doi.org/10.1007/s00775-018-1537-9>.
- Saniya A Laheri, Deepak Modi, Purvi Bhatt (2017). Extra-oviductal expression of Oviductal glycoprotein 1 in the mouse: Detection in testis, epididymis and ovary. *Journal of Biosciences (J Biosci.)*, Mar;42(1):69-80. (Impact factor-1.42) DOI: 10.1007/s12038-016-9657-2.
- Vaibhav Jadhav, Pritha Ray, Geetanjali Sachdeva, Purvi Bhatt. (2016). Biocompatible Arsenic Trioxide Nanoparticles Induce Cell Cycle Arrest by p21WAF1/CIP1 Expression via Epigenetic Remodeling in LNCaP and PC3 Cell Lines. *Life Sciences*, 148, 41-52 (Impact factor- 2.7).
- Vaibhav Jadhav, Shilpee Sachar, Sudeshna Chandra, Dharendra Bahadur, Purvi Bhatt. (2016). Synthesis and Characterization of Arsenic Trioxide Nanoparticles and Their In Vitro Cytotoxicity Studies on Mouse Fibroblast and Prostate Cancer Cell Lines. *Journal of Nanoscience and Nanotechnology*, 16(7), 7599-7605. <http://dx.doi.org/10.1166/jnn.2016.1166> [Impact factor- 1.556]
- Juilee Patwardhan, Purvi Bhatt (May 2016). "Flavonoids derived from *Abelmoschus esculentus* Attenuates UV-B Induced Cell Damage in Human Dermal Fibroblasts through Nrf2-ARE Pathway. *Pharmacognosy Magazine*, 12(46), 129-138. DOI:10.4103/0973-1296.179675 (Impact factor- 1.256).
- Juilee Patwardhan, Purvi Bhatt (Oct 2015). UV-B Protective Effect of Flavonoids from *Eugenia caryophyllata* on Human Dermal Fibroblast Cells. *Pharmacognosy Magazine*, 11; 44(3): 397-406 (Impact factor- 1.256).
- Juilee Patwardhan, Nancy Pandita, Purvi Bhatt.(2013). Comparative Study of Antioxidant Potential of Two Indian Medicinal Plants - *Foeniculum vulgare* and *Eugenia caryophyllata*. *International Journal of Pharmaceutical Sciences Review and Research*, 7(2) 312-316 [SCImago impact factor of 0.65]
- Kanika Pandit, Ritu Mishra, Brijesh S, Ashok Bhagwat, Purvi Bhatt. (2014). Lipid lowering activity of *Feronia limonia* leaf in Triton WR-1339 induced hyperlipidemic rats. *International Journal of Pharmacy and Pharmaceutical Sciences*, 6(8),156-158.[SCImago Impact factor- 0.55].

GROUP ACHIEVEMENTS

- Ms. Maneka Hoonjan won the best poster award at SBC(I) Mumbai 2018 meet held on 13 October 2018 at ICT, Mumbai presented poster titled, 'Investigation of HSA as a biocompatible coating material for arsenic trioxide nanoparticles'.
- Ms. Saniya Laheri was the recipient of CSIR-SRF award.
- Ms. Maneka Hoonjan won the Sajjan Gupta Konark Memorial 'Encouragement award' – 2017 at V.E.S. College, Chembur, 7th Research Meet held on 18 January 2017, presented poster titled: Biocompatible arsenic trioxide nanoparticles: synthesis, characterization, cytotoxicity and in silico studies.
- Ms. Maneka Hoonjan was the recipient of UGC-Maulana Azad National Fellowship (MANF) for Minority Students (JRF & SRF).