

Dr. URJITA VIJAYKANT SHETH

Assistant Professor

CGBIBT

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Education

PhD in Applied Sciences (BIOTECHNOLOGY)

UKA TARSADIA UNIVERSITY, Tarsadi

(Registration year Feb 2013)

December 2017

Master of Science, BIOTECHNOLOGY

C G Bhakta Institute of Biotechnology

Veer Narmad South Gujarat University, Surat

May 2010

Bachelor of Science, BIOTECHNOLOGY

C G Bhakta Institute of Biotechnology

Veer Narmad South Gujarat University, Surat

April 2008

Specialization

BIOTECHNOLOGY

Professional/Teaching Experience

Teaching Assistant

C G Bhakta Institute of Biotechnology

28th June, 2010- 30th June, 2018

Assistant Professor

C G Bhakta Institute of Biotechnology

1st July, 2018 – Till Date

Research Interest

- **Pharmaceutical Biotechnology**
- **Molecular Biology**
- **Nanobiotechnology**
- **Animal Biotechnology**



Resolving Double Helix For Life

Research Experience

- **Academic Project at CGBIBT on Screening of Rennin producing organisms.**
- **Academic Research project at Nthrys Biotech, Hyderabad during M. Sc. Dissertation.**
- **As a PhD scholar in Applied Sciences (BIOTECHNOLOGY)**

Core-shell micelles from biocompatible amphiphilic copolymers as nanoreservoirs in drug delivery systems” Under the guidance of Prof. Dr. R. Krishnamurthy (Guide), Director, C. G. Bhakta Institute of Biotechnology. UTU, Bardoli and Dr. Anita Bahadur (Co-guide), Associate Professor at Department of Zoology, Sir P. T. Sarvajank College of Science, Surat.

Creditable position

MEMBERSHIPS:

- Lifetime member of the Association of Microbiologists of India (AMI) since 2016 (Membership ID: 4412-2016).
- Full Member of the Society of Toxicology (SOT), USA since 20th August, 2020.

Organizing Member:

- Acted as a member of Organizing Committee in webinar workshop entitled What to do next?- Career prospects in Life Science on 3rd April, 2021 organized by C. G. Bhakta Institute of Biotechnology, Uka Tarsadia University.
- Acted as **co-organizing secretary** for GSBTM and GUJCOST sponsored workshop on “Prospects and Challenges to become Bio-entrepreneurs through Students start-ups” during 1st-2nd February, 2019 at Uka Tarsadia University.
- Acted as **convener** and Conducted Chemistry Practical in DST Sponsored INSPIRE-2018, held at C.G. Bhakta Institute of Biotechnology, Uka Tarsadia University.
- Acted as **Local organizing committee (LOC) member** for various workshops/conferences/ seminar and guest lectures.





Resolving Double Helix For Life

Co-curricular/Extra-curricular Activities:

- Acted as contingent leader at 35th West zone Youth Festival organized from 27th December to 31st December, 2019 at Uka Tarsadia University.
- Acted as **Co-convener** of Youth Festival- 4th UTh Fest 2018, held during 31st January to 2nd February, 2018 at Uka Tarsadia University.
- Acted as **Chief Event Coordinator and judges** of various events in different youth festivals.

ACHIEVEMENTS:

- Cleared **GATE 2011**.
- Cleared PhD Entrance Test (**PET**) **2011** of MS University, Baroda.
- Achieved “**Best Student Award**” in 11th standard at B.A.B.S. High School, Bardoli in year 2004
- Achieved “**5th Rank**” in Bardoli Centre in 10th standard in year 2003.
- NPTEL **topper** for “Biomedical Nanotechnology” course held during April to November 2019.

Skills

- **Microbiology:** Microbial Culture techniques, Isolation, Characterization & Identification of Microorganism, Staining Techniques, Biochemical Characterization, Lab scale Fermentations
- **Molecular Biology:** Isolation & Characterization of DNA, RNA, Plasmid, PCR, Agarose Gel Electrophoresis, SDS-PAGE
- **Animal cell culture & Animal Handling:** Basic mammalian cell culture handling techniques: MTT assay, Drug Transport/permeability study, Flowcytometry: Cell cycle analysis, cell sorting, Immunophenotyping, etc; Rat handling
- **Self-Assembly of block copolymers:** Viscosity measurement, Micelles formation, FTIR Analysis, HPLC, DLS, CP, Fluorescence, HSDSC, etc.

Presentations

Invited Lectures:

- Delivered lecture on “Molecular Biology Techniques: DNA Isolation, Gel Electrophoresis, PCR” as a resource person at GUJCOST Sponsored Two-Dyas Workshop on Hands-on Experiments in Pharmacology: Exploring Paradigm Shift, Organized by Maliba Pharmacy College, Uka Tarsadia University on 23rd-24th July, 2021.
- Delivered lecture on “Microsoft Word” as Resource Person at Webinar Workshop entitled Basics of Microsoft on 2nd April,

UKA TARSADIA UNIVERSITY, Maliba campus, Gopal Vidyanagar,

Bardoli-Mahuva Road, Tarsadi - 394 350, Dist. Mahuva, GUJARATA (India)

www.utu.ac.in



2021 organized by C. G. Bhakta Institute of Biotechnology, Uka Tarsadia University.

- Delivered Expert session on “Importance of Personal Hygiene in Women’s Life” for Teaching and Non-Teaching Staff at C. G. Bhakta Institute of Biotechnology, Uka Tarsadia University on 8th March, 2021.
- Delivered Expert lecture on “Mole Concept” at GSBTM sponsored workshop on ‘Chemistry and Mathematics for Biologists’, held at Uka Tarsadia University during 26th – 27th March, 2018.

PRESENTATIONS:

1. **Poster/Oral:** Urjita Sheth, “Core-Shell Micelles from Biocompatible Amphiphilic Copolymers as Nanoreservoirs in Drug Delivery Systems” at Nanotechnology and its application to Ocular Drug Delivery Systems, Maliba Pharmacy College, Uka Tarsadia University during 28-30th January, 2019 (**Won Second Prize**)
2. **Poster:** Urjita Sheth, Anita Bahadur, “Solubility of some hydrophobic drugs in polymeric nonionic micelles from Pluronic” at Innovations and Recent Trends in Drug Discovery Techniques, Radio-labeling and Applied Science Research. UTU, Bardoli. 23rd-24th January, 2015
3. **Poster:** Urjita Sheth, Ami Raval, Anita Bahadur, “Solubility of some hydrophobic drugs and dyes in polymeric nonionic micelles from Pluronic” at 5th Asian Conference on Colloid and Interface. University of North Bengal Darjeeling, INDIA 20th-23rd November, 2013
4. **Oral:** M. Patel, U. Sheth, B. Joshi, “Isolation, Diversity Analysis of Rhizobacteria from Sugarcane Rhizosphere and its Biocontrol Potential against *Rhizoctonia solani*- a common plant pathogen” at International Conference on Biotechnology: Environment, Agriculture and Society, HNGU, Patan. 30th March-1st April, 2012 (**Won Second Prize**)

Judging Event:

- Acted as Judge for Drawing Competition on Teacher’s Day Celebration at C. G. Bhakta Institute of Biotechnology, Uka Tarsadia University on 6th September, 2021.
- Acted as Jury member in Idea Hunt 2021 on 27th February, 2021 organized by SSIP, UTU.
- Judged poster session in “Two Days National Conference on Nanoparticulate Drug Delivery Systems: From Bench to Bedside”, held at Maliba Pharmacy College, Uka Tarsadia University on 9th-10th March, 2018.

Professional/Research Training

TRAINING:

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- Hands on training of Animal Cell culture handling at Jai Research Foundation, Vapi, Gujarat, for the period of three months (April to June 2015).

WORKSHOPS ATTENDED:

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- Online CeNSE DBT Nano-biotechnology Alliance (C-DNA) Familiarization Workshop by Centre for Nanoscience and Engineering (CeNSE), IISc, Bangalore (11th to 13th January, 2021)
 - Online Workshop on HPTLC Technique and its applications in Agriculture organized by Department of Plant Molecular Biology and Biotechnology, ASPEE College of Horticulture and Forestry, Navsari Agricultural University (3rd November, 2020)
 - Online Short term Course on Research Methodology organized by Shri R. L.T. College of Science, Akola & Ph.D Cell, S.G.B.A.U., Amravati (13th-16th July, 2020)
 - Workshop on Animal Cell Culture and Flow Cytometry at Gujarat Biotechnology Research Centre (GBRC), Gandhinagar (3rd to 7th February, 2020)
 - Biostatistics and Experimental Designs: Theory and hands-on Applications at Maliba Pharmacy College, Uka Tarsadia University, Bardoli (25th – 29th April 2016)
 - How to Write Thesis using Application Software at Electrical Engineering Department, CGPIT, Uka Tarsadia University, Bardoli (6th September, 2014)
 - Computation of Statistical Analysis using SPSS for Pharmaceutical Research at Maliba Pharmacy College, Uka Tarsadia University, Bardoli (6th-7th March, 2014)

FACULTY DEVELOPMENT PROGRAMMES:

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- One week Online International Faculty Development Programme on Skilling Teachers for Online Education organized by the centre of Humanities and Development, Uka Tarsadia University, Bardoli (2nd-6th June, 2020)
 - Faculty development programme Phase I (30th April- 13th may, 2016) and Phase II (30th July – 4th August, 2018) at the centre of Humanities and Development, Uka Tarsadia University, Bardoli

Publications

1. Rajendra M. Nagane, Karishma R. Desai, Indrajitsinh M. Barad, Manish V. Patel, Urjita V. Sheth, Kathirvelu Baskar, Bindi S. Patel, Diwakar K. Shukla and R. Krishnamurthy " Evaluation of Mutagenic Potential of Ethanolic Extract of Leaves of *Couroupita guianensis* using *Salmonella typhimurium* Tester Strains", *Toxicology International* Vol.: 28 (2021), 255-265 DOI: 10.18311/ti/2021/v28i3/27432 (Impact Factor: **1.205**)
2. Sofiya J. Shaikh, Hemil S. Patl, Debes Ray, Vinod K Aswal, Sushmita Singh, Ravi Vijayvargia, Urjita Sheth, Rakesh K. Sharma, "Enhanced Solubility and Oral Bioavailability of Hydrophobic Drugs Using Pluronic Nanomicelles: An In vitro Evaluation", *Chemistry Select*, Vol.: 6 (2021), 7040 – 7048. doi.org/10.1002/slct.202102123 (Wiley Online Library: European Chemical Society Publishing Impact Factor: **2.109**)
3. Rajendra M. Nagane, Karishma R. Desai, Indrajitsinh M. Barad, Manish V. Patel, Jigarkumar R. Rana, **Urjita V. Sheth**, Virangana M. Patel, Kinjal A. Patel and R. Krishnamurthy "Evaluation of Clastogenic Potential of Ethanolic Extract of Leaf of *Couroupita guianensis* using Micronucleus Test in Mice", *Toxicology International*, Vol.:28 (2021), 187-198 DOI: 10.18311/ti/2021/v28i2/27433 (Impact Factor: **1.205**)
4. Sadafara A. Pillai, Anish Kumar Sharma, Sagar M. Desai, **Urjita Sheth**, Anita Bahadur, Debes Ray, Vinod K. Aswal, Sanjeev Kumar, "Characterization and application of mixed micellar assemblies of PEO-PPO star block copolymers for solubilization of hydrophobic anticancer drug and in vitro release", *Journal of Molecular Liquids*, Vol.: 313(2020)113543. <https://doi.org/10.1016/j.molliq.2020.113543>. (Elsevier Publication July 2020 Impact Factor: **5.065**)
5. **Urjita Sheth**, Sanjay Tiwari, Anita Bahadur, "Preparation and characterization of anti-tubercular drugs encapsulated in polymer micelles", *Journal of Drug Delivery Science and Technology*, Vol.: 48(2018) 422-428. DOI: 10.1016/j.jddst.2018.10.021. (Elsevier Publication July 2020 Impact Factor: **2.734**)
6. **Urjita Sheth**, Anita Bahadur, "In-vitro evaluation of cytotoxic and antioxidant properties of drugs solubilized in EO-PO star block copolymeric micelles", *Colloids and Surfaces B: Biointerfaces*. Vol 171 (2018) 343-350. DOI: 10.1016/j.colsurfb.2018.07.051. (Elsevier Publication July 2020 Impact Factor: **4.389**)
7. **Urjita Sheth**, Meonis Pithawala, R. Krishnamurthy, "Genotoxicity evaluation of PEO-PPO based star block copolymer T1107 and micelle encapsulated antioxidants by Cytokinesis-block micronucleus (CBMN) assay." *World Journal*

- of Pharmaceutical Research. Vol. 6 (2017) 927-946. DOI: 10.20959/wjpr201712-9714.
8. Pooja Patidar, Sadafara Pillai, **Urjita Sheth**, Pratap Bahadur, Anita Bahadur, “Glucose stimulated enhanced solubilization, release and cytotoxicity of poorly water soluble anti-cancer drugs from T1307 micelles.” Journal of Biotechnology. Vol. 254 (2017) 43-50. DOI: 10.1016/j.biotech.2017.06.013. (Elsevier Publication July 2020 Impact Factor: 3.503)
9. **Urjita Sheth**, Rajendra Nagane, Pratap Bahadur, Anita Bahadur, “Salt effect on solubilization of hydrophobic drugs in block copolymeric micelles and investigation of their in vitro and in vivo oral efficiency.” Journal of Drug Delivery Science and Technology. Vol. 39 (2017) 531-541. DOI: 10.1016/j.jddst.2017.05.007. (Elsevier Publication July 2020 Impact Factor: 2.734)
10. Sadafara A. Pillai, **Urjita Sheth**, Anita Bahadur, Vinod K. Aswal, Pratap Bahadur, “Salt induced micellar growth in aqueous solutions of a star block copolymer Tetronic® 1304: Investigating the role in solubilizing, release and cytotoxicity of model drugs.” Journal of Molecular Liquids. Vol. 224 (2016) 303–310. DOI: 10.1016/j.molliq.2016.09.091. (Elsevier Publication July 2020 Impact Factor: 5.065)
11. M. Patel, **U. Sheth**, P. Hajela, B. Joshi, and D.A. Animasaun “Isolation and Diversity Analysis of Rhizobacteria from Sugarcane and its Biocontrol potential against Rhizoctonia solani – A common plant pathogen” International Journal of Current Microbiology and Applied Sciences. Vol. 3(12) issue (December-2014) (Cosmos Impact Factor 2018: **4.963**).

BOOK CHAPTER PUBLICATION:

- ❖ **Urjita Sheth**, A. Sankarnarayanan, (2021) “Recent advancement in the production of probiotics fermented beverages”, Advances in Dairy Microbial Products. 1st Edition. Elsevier Publications. [Accepted for Publication (Book is ready for preorder)]

Date 25th September, 2021

Place: UTU, Bardoli