**Dr. Viral Shah**

**Resedential Address:** B16, Gulab Park Society, Besides Gulab tower, Thaltej,

Ahmedabad-380061,Gujarat India.

**Cell No.**:9023170516 **E.mail** :[viralshah779@yahoo.com](mailto:viralshah779@yahoo.com)

**EDUCATION:**

**Ph.D.** Pharmaceutical Sciences, K.B.I.P.E.R, Gandhinagar, Gujarat, India, December 2008-July 2013.

**Advisor:** Prof. Dr. Gaurang Shah

**Research Topic:** Formulation and Evaluation of Mucoadhesive buccal tablets of Statin derivatives.

**M. Pharm.** Pharmaceutics, North Maharashtra University, Jalgaon, Maharashtra, India, June 2005-April 2007.

**Advisor:** Dr. Veena Belgamwar

**Thesis Title:** Formulation Development and Evaluation of gastrointestinal Mucoadhesive multiparticulate drug delivery system. **(Gold medalist)**

**B. Pharm.** Pune University, Maharashtra, India, July 2001- May 2005. (**District Topper**)

**IPR Correspondence Course**,WIPO Geneva, April 2008.

**Higher Secondary School,** C. U. Shah higher secondary English medium school, Ahmedabad, Gujarat, India, July 1999-April 2001.

**Secondary School,** Institute of our lady of FatimaConvent school, Daman, India, May 1999 **(District Third)**

**Test of English as a foreign language (TOEFL) IBT:** February 2008, Reading: 27/30, Listening 27/30, speaking 26/30 and writing 28/30 toatal score 108/120.

Qualified National level **GATE Exam** held by Indian Institute of Technology (IIT) Bombay in February 2005.

**PROFESSIONAL EXPERIENCE:**

**Professor** (01-03-2021 to until date) **Sal Institute of Pharmacy (Gujarat Technological University), Ahmedabad, Gujarat, India**

**Medical writer** (24/6/2020 to until date) **Medip academy,** **Ahmedabad, Gujarat, India.**

**Research Scientist B** (15-12-2017 to 28-02-2021) **B. V. Patel Pharmaceutical Education and Research Centre (PERD), Ahmedabad, Gujarat, India**

**Associate Professor** (31-07-2013 to 13-12-2017): **National Institute of Pharmaceutical Education and Research (NIPER), Ahmedabad, Gujarat, India**

**Assistant Professor** (30-05-2007 to 30-07-2013): **Sigma Institute of Pharmacy (Gujarat Technological University), Baroda, Gujarat, India**

**Research EXPERIENCE:**

**Research Areas Explored:**

**Formulation development, stabilization, characterization and QbD based optimization of lipid vesicular based nanoparticulate systems (liposomes).**

**Significance:** The potential of different cost effective surface modifying agents was explored for increasing the physical, chemical and biological stability of liposomal formulation delivered through oral route.

Increased physical stability of liposomal formulation was determined under the influence of divalent ions by converting liposomes into nanocochleate form.

Optimized different process and formulation parameters using model drugs of varied Log S values to increase the encapsulation efficiency and stability of liposomal formulation.

**Formulation development, characterization and QbD based optimization of biodegradable Transdermal microneedle arrays for delivery of therapeutic biologics**

**Significance:** The efficiency of transdermal polymeric microneedle arrays was determined for systemic delivery of therapeutic biologicals (high mol. wt. peptides).

Liposome loaded biodegradable microneedle arrays were fabricated and evaluated for lymphatic targeting of antiretroviral drug substances in HIV infection.

Developed SLN loaded microneedle arrays for comparing its potential over liposomes in lymphatic targeting.

**Development and characterization of nanofiberous scaffolds.**

**Significance:** Liposomes loaded biodegradable polymeric nanofiber scaffolds were developed and characterized for improving the therapeutic efficiency of antibiotics used in urinary tract infections.

**Solubility enhancement approaches for BCS class II drug substances.**

**Significance:** β-cyclodextrin based nanosponges sponges and nanofibers were developed and compared for its solubility enhancement potential of BCS class II drug substances.

Solubility nnd dissolution rate enhancement of Licofelone was studied using modified guar gum.

Formulated and characterized solid liquid tablets based on cosolvancy approach for enhancing the solubility of BCS class II drug.

**Developed and characterized zinc pyrithione loaded microsponge based shampoo**

**Significance:** The shampoo ultimately reduced the scalp irritation property of the zinc pyrithione and also enhanced its antidandruff effect at lower concentrations.

**Developed microsponge formulation for topical application of clotrimazole.**

**Significance:** J flux of clotrimazole across the skin was enhanced by the developed formulation thereby increasing its therapeutic efficiency. The delivery kinetics was maintained to zero order in controlled manner thereby eliminating the plasma drug conc. fluctuations, decreasing the side effects.

**Evaluated the potential of natural agents as suspending agents in biphasic liquids and disintegrating agents in tablet dosage form.**

**Significance:** Justified the role of a naturally available *Abelmoschus Esculentus* seed mucilage and *Hibuscus Rosa*­Sinensis linn mucilage as potential pharmaceutical excipients in different dosage forms.

**Developed and characterized bilayered buccal patch of Thiocolchicoside and Diclofenac.**

**Significance:** Thiocolchicoside used in muscle spasm along with anti-inflammatory diclofenac sodium used for synergistic action was delivered via double layered Mucoadhesive buccal patch for better patient compliance and reducing the dose related side effects of thiocolchicoside .

**PhD and post graduate research scholar : December 2008-July 2013**

PhD Thesis Title: **Formulation Development and evaluation of bilayered buccalmucoadhesive tablets of Flustatin, Rosuvastatin and Pravastatin.**

**M. Pharm Thesis Title: Formulation development and evaluation of spray dried mucoadhesivemultiparticulate system of metoprolol for oral administration.**

**Significance:** Therapeutic potential of listed drug substances was improved in hyperlipidemia and hypertension indications by increasing theoral bioavailability and thereby decreasing the dose/dosing frequency and side effects of the mentioned drug substances.

**FELLOWSHIPS AND AWARDS:**

1. Certificate of merit and Gold Medal at post graduation level by North Maharashtra University.
2. Ratan Tata meritorious scholarships for consecutive three years of graduation and one year of post graduation studies.
3. Certificate of merit and award by Sontara Trust Maharashtra for outstanding academic performance at graduation level.
4. Certificate of merit and award by Shree. Bagvada Paragana Jain Education society fpr standing first at B.Pharm
5. Certificate of merit and award received from DhirubhaiAmbani foundation trust for securing centre third position at SSC examinations conducted by GSEB.
6. Best paper award from International Research Journal of Humanities, Engineering And Pharmaceutical Sciences.

**RECOGNITION:**

1. Shortlisted by Worlds “Whos Who” committee to publish the biography in a magazine of International repute
2. Research work published and appreciated at front page of “Times of India” dated September 3rd 2019.Article title “The Injection will not needle you”.
3. Reviewer of government based DST and SERB organizations for evaluating projects for government funding.
4. Reviewer and editor for National and International Journals like AAPS Pharm. Sci. Tech, British Journal of Pharmaceutical Research, International Journal of Pharmacy and Pharmacology, African Journal of Microbiology Research, Herald Journal of Pharmacy and Pharmacological Research, International Research Journal of Pharmacy and Pharmacology, International Journal of Biochemistry and Biotechnology and Journal of Medicine and Medical sciences.

**PRESENTATIONS and Talks:**

**International presentations:**

1. Presented a paper on formulation of oral mucoadhesive multiparticulate system by spray drying technique: an in vitro-Ex vivo characterization at American association of pharmaceutical scientist’s conference held at California, USA in 2009.
2. Presented a paper entitled “recent updates in systemic drug delivery of therapeutic bilogicals” at an International Symposium “Innovations in Pharmaceutical Sciences and Technology” Organized by B. V. Patel PERD Centre Ahmedabad.

**National presentations and talks as rescource preson:**

1. Presented a paper entitled “application of DOE in formulating oral multiparticulate formulations” at National seminar organized by Maliba, Pharmacy College, Surat, Gujarat in 2009.
2. Delivered a talk as a resource person at two days National level seminar and poster presentation conference sponsored by Savitribai Phule Pune University and organized by K. B. H. S. S. Institute of Pharmacy, Malegaon, Maharashtra in 2018.
3. Delivered a talk as invited speaker at two weeks faculty development programme on recent advances in novel drug delivery system sponsored by AICTE and organized by S. K. Patel College of Pharmaceutical Education and Research, Gujarat in 2019.
4. Delivered a talk on “interpretation of U.V. , IR, Mass and NMR spectra” at Sardar Patel College of Pharmacy, Gujarat in 2017.

**PATENTS:**

Indian Provisional (Patent no. 201921040016) on “Low risk, patient friendly saccharide and/or polyvinyl pyrolidone based biodissolvable microneedle based drug delivery system”.

Indian Patent (Patent no. 202221011792) on “A novel formulation comprising silica coated nano-lipid vescicular system for oral delivery of choriogonadotropin alfa”.

**MEMBERSHIP OF PROFESSIONAL BODIES:**

Life Member of Association of Pharmaceutical Teachers of India.

**PROJECTS COMPLETED AS PRINCIPAl INVESTIGATOR/CO-INVESTIGATOR:**

1. Co-investigator in development, characterization and comparison of herbal wound healing cream consisting of *Azadirachta indica, Annona reticulate, Ocimum sanctum, Acacia nelotica, Lawsonia alba* and*Brassica nigra* with cream consisting of *Azadirachta indica, Acacia nelotica, Ocimum sanctu, Annona reticulate, Curcuma longa and Ricinus communis.* Project funded by National Innovation foundation, Gandhinagar, Gujarat.
2. Principal investigator in formulation and characterization of Nevirapine extended release matrix tablets for enhancing the bioavailability and reducing the dosing frequency in HIV treatment. Project funded by AIIMS; New Delhi.
3. Principal investigator in developing technology transfer report for chlorhexidine gel. Project funded by United States Pharmacopial-Indian counterpart.
4. Co- investigator in development and characterization of topical mosquito repellent cream consisting of *Vitex negundo, Cinnamomum camphora* and *Cymbopogon citrates.* Project funded byNational Innovation foundation, Gandhinagar, Gujarat.
5. Principal Investigator in designing studies for comparing the transdermal permeation flux of developed aceclofenac and thiocolchicoside gel with marketed Volini gel. Project funded by Lyca laboratories.
6. Co-investigator in industrial projects for the evaluation of L-lysine as a solubilizer in a NSAID based parenteral injection formulation, development and evaluation of rapid disintegrating Turkish coffee tablets, formulation development and evaluation of veterinary injection of Tilmicosin.

**PUBLICATIONS:**

**Total Citations: 662**

**h-index: 14**

**i10 index: 23**

**List of Publications:**

**Book chapters:**

1. Book on: Mucoadhesive drug delivery system by LAP- Lambert Publication House Germany.
2. Book chapter on: Formulation strategies to bypass pgp mediated drug efflux. In: An introduction to P-Glycoprotein by Nova Medicine and Health Publishers, USA.

**Research papers:**

1. Viral Shah, Ekta Khambhla, Manish Nivsarkar, Riddhi Trivedi, Rakesh patel. An integrative QbD approach for the development and optimization of controlled release compressed coated formulation of water-soluble drug. Accepted for publication in AAPS PharmSciTech. 2022.
2. Viral Shah, Garvit Hathi, Manju Misra, Manish Nivsarkar. Design, development and QbD based optimization of double coated spheronized aceclofenac pellets for effective palliative care in rheumatoid arthritis. Journal of Drug Delivery Science and Technology. 2022 Jan;67:102920.
3. Shah Viral, Jobanputra Amee, Saxena Bhagwathi, Nivsarkar Manish. Development and Characterization of Saturated Fatty Acid-Engineered, Silica-Coated Lipid Vesicular System for Effective Oral Delivery of Alfa-Choriogonadotropin. AAPS PharmSciTech. 2021 Mar 29;22(3):118.
4. Shah Viral, Jobanputra Amee. Enhanced Ungual Permeation of Terbinafine HCl Delivered Through Liposome-Loaded Nail Lacquer Formulation Optimized by QbD Approach. AAPS PharmSciTech. 2018 Jan;19(1):213-224.
5. Shah Viral, Choudhury Bijaya. Fabrication, Physicochemical Characterization, and Performance Evaluation of Biodegradable Polymeric Microneedle Patch System for Enhanced Transcutaneous Flux of High Molecular Weight Therapeutics. AAPS PharmSciTech. 2017 Nov;18(8):2936-2948.
6. Bharvada Ekta, Shah Viral, Misra Manju. Exploring mixing uniformity of a pharmaceutical blend in a high shear mixture granulator using enthalpy values obtained from DSC. Powder Technol. 2015;;276:103-11.
7. Chauhan Jaydeep, Gupta Harshita, Pandey K, Shah Viral, Kamble Bhagyeshree. Herbosome an approach to deliver Aegle marmelos extract: Formulation, characterization and stability study. JDDT. 2019;9(3-s):356-65.
8. Belgamwar Veena, Shah Viral, Surana SJ. Formulation and evaluation of oral mucoadhesive multiparticulate system containing metoprolol tartarate: an in vitro-ex vivo characterization. Curr Drug Deliv. 2009 Jan;6(1):113-21.
9. Shah Viral, Shelat Pragna, Shah Gaurang. Design and evaluation of thiolated chitosan based mucoadhesive and permeation enhancing buccal drug delivery. African J of Pharm and Pharmacol. 2012;6(7):491-501.
10. Shah Viral, Shelat Pragna, Shah Gaurang. Design, physicochemical characterization and pharmacokinetic evaluation of bilayered buccal tablets containing statin derivative; Research Journal Of Pharmaceutical, Biological And Chemical Sciences. 2012;3(2):227-238.
11. Hardik Patel, Chandani Shah, Viral Shah, Umesh Upadhyay. Factorial designing, development and in-vitro evaluation of liposomal gel for topical delivery of quetiapine. Asian Journal Of Pharmaceutical Sciences. 2012;7(4):290-302.
12. Amish Panchal, Markand Mehta, Viral Shah, Umesh Upadhyay. Formulation and in-vitro evaluation of mucoadhesive bilayered buccal tablet of rosuvastatin calcium. International Journal Of Pharmaceutical Sciences And Research. 2012;3(8):2733-2748.
13. Hardik Patel, Chandani Shah, Viral Shah, Umesh Upadhyay. Design, development and in vitro evaluation of controlled release gel for topical delivery of quetiapine using Box- Behnken design. International Journal Of Pharmaceutical Sciences And Research. 2012;3(9):227-239.
14. Markand Mehta, Amish Panchal, Viral Shah, Umesh Upadhyay. Formulation and in-vitro evaluation of controlled release gel for topical delivery of clotrimazole. International Journal Of Advanced Pharmaceutics. 2012;2(2):93-101.
15. Shah Adarsh, Shah Viral, Umesh Upadhyay. To formulate, evaluate and study the effect of different variables on push pull based osmotic drug delivery system of ropinirole hydrochloride. International Journal Of Pharmaceutical Sciences And Research. 2012;3(9):3211-3218.
16. Chandani Shah, Hardik Patel, Viral Shah, Umesh Upadhyay. Design, development and optimization of valsartan liquisolid tablets using Box-Behnken design. International Journal Of Pharmaceutical Sciences And Research. 2012;3(8):2741-2753.
17. Sapna Desai, Gali Vidyasagar, Shah Viral, Dhruv Desai. Preparation and in vitro characterisation of mucoadhesive microspheres of midazolam: nose to brain administration. Asian J of Pharm. And Clinical Research. 2011;4(1):100-102.
18. Chirag Patel, Ujwal Sahoo, Seth A. K., Viral Shah, Umesh Upadhyay. Formulation and evaluation of solid dispersion of olanzepine. Pharma Science Monitor. 2012;3(3):21-28.
19. Viral Shah, Meha Sharma, Vijay Parmar, Umesh Upadhyay. Formulation of sildenafil citrate loaded nasal microsphers: an in vitro, ex vivo characterization. International Journal of Drug Delivery. 2010;2:213-220.
20. Viral Shah, Patel Dhiren, Sandeep Mane, Umesh Upadhyay. Solubility and dissolution rate enhancement of licofelone by using modified guar gum. International Journal of Pharmtech Research. 2010;2(3):1847-1854.
21. Viral Shah, Sanjay Raval, Sapna Peer, Umesh Upadhyay. A comparative evaluation of different membranes for their diffusion efficiency: an in vitro study. An International Journal of Pharma Sciences. 2010;1(2):41-49.
22. Viral Shah, Rucha Patel. Studies on mucilage from hibuscus rosa­sinensis linn as oral disintegrant. International Journal of Applied Pharmaceutics. 2010:2(1);18-21.
23. Viral Shah,Chirag Makwana, Pramit Patel, Umesh Upadhyay. Studies on abelmoschus esculentus seed mucilage: evaluation of suspending properties. Deccan Journal Of Pharmaceutics and Cosmetology. 2010;1(1):44-52.
24. Dhaval Bhavsar, Namita Thakor, Chilka Patel, Viral Shah. A simultaneous estimation of ketorolac tromethamine and omeprazole by ultraviolet spectroscopy. International Journal Of Research In Pharmacy And Science. 2013;3(2):146.
25. Varde Neha, Thakor Namita, C. Sini, Shah Viral. Formulation optimization and evaluation of liposomal gel of prednisolone by applying statistical design. Indian Journal Of Research In Pharmacy And Biotechnology. 2013;1(2):180-187.
26. Shah Viral, Shah Jimish, Umesh Upadhyay. Formulation development and evaluation of buccal bilayer patch using thiocolchicoside and diclofenac sodium. International Journal Of Inventions In Pharmaceutical Sciences. 2013;1(3):190-211.

**Review papers:**

#### Shah Viral, Kochar Pratiksha. Brain Cancer: Implication to Disease, Therapeutic Strategies and Tumor Targeted Drug Delivery Approaches. Recent Pat Anticancer Drug Discov. 2018;13(1):70-85.

#### Shah Viral, Pooja Todke. [Psoriasis: implication to disease and therapeutic strategies, with an emphasis on drug delivery approaches](https://onlinelibrary.wiley.com/doi/abs/10.1111/ijd.14047). Int J Dermatol. 2018 Nov;57(11): 1387-1402.

#### Thakkar Shreya, Shah Viral, Misra Manju, Kalia Kiran. Nanocrystal Based Drug Delivery System: Conventional and Current Scenario. Recent Pat Nanotechnol. 2017 Jul 10;11(2):130-145.

#### Khambhla Ekta, Shah Viral, Baviskar Kalpesh. Drug Delivery to CNS: Challenges and Opportunities with Emphasis on Biomaterials Based Drug Delivery Strategies. Curr Pharm Des. 2016;22(19):2913-22.

#### Anu Nair, Viral Shah, Dasharath Chaudhari. A concise review on carbon nanotubes as a novel approach for vaccine delivery. World Journal Of Pharmaceutical Research. 2015;4(6):698-713.

1. Dharmesh Gol, Shah Viral. Nanocochleates: a novel approach for drug delivery. World Journal Of Pharmaceutical Research. 2014;3(2):1920-1944.
2. Bijaya Choudhury, Prem Saytode, Viral Shah. neurodegenrative disorders: past, present and future. International Journal Of Applied Biology And Pharmaceutical Technology. 2014;5(2):14-28.
3. Ravi Gor, Bhavin Sonvane, Viral Shah. Dendrimer- an emerging approach for drug delivery;International Journal Of Pharmaceutical Sciences Review And Research. 2014;26(1):264-270.
4. Amee Jobanputra, Viral Shah, Divyajit Patel. A concise review on transungual: a novel drug delivery stratergy across nails. International Research Journal Of Humanities, Engineering And Pharmaceutical Sciences. 2014;2(8)1-10.

#### Viral Shah, Ruma Baksi, Sharma V., Borse S., Nivsarkar Manish. Challenges And Evolution In Cancer Treatment Strategies With Emphasis On Applicanon Of Neutraceuticals In Cancer Therapy: A Review. Journal of cell and Tissue Research. 2019;19(1):6627-33.

1. Viral Shah, Hitesh Jain, Jethva Krishna, Pramit Patel. Microsponge drug delivery: a review. Int J Res Pharm Sci. 2010;1(2);212-218.
2. Viral Shah, Ekta Chavda. Injecting new ideas into drug delivery systems: microchips a review. Int J of Res In pharm and Biomedical Sci. 2011;2(1):1-7.
3. Shah Adarsh, Shah Viral, Umesh Upadhyay. Organalle specific targeted drug delivery: a review. Int J of Res In Pharm and Biomedical Sci. 2011;2(3):895-912.
4. Amish Panchal, Viral Shah, U.M. Upadhyay. Insulin drug delivery systems: a review. Int J of Res in Pharm Sciences. 2011;2(4);484-492.
5. Upadhyay U.M, Mehta Markand, Shah Viral. Opthalmic drug delivery with emphasis on in situ gel system: a review; Journal of Pharmaceutics And Cosmetology. 2011;2(7):484-492.
6. Hardik Patel, Viral Shah, Umesh Upadhyay. New pharmaceutical excipients in solid dosage forms-a review. International Journal of Pharmacy & Life Sciences. 2011;2(8):1006-1019.
7. Upadhyay Umesh, Shah Chandni, Shah Viral. Solid lipid nanoparticles: a review; Current Pharma Research. 2011;1(4):212-218.
8. Sunil Rathva, Nitesh Patel, Viral Shah, U. Upadhyay. Herbal transdermal patches. International Journal Of Drug Discovery And Herbal Research. 2012;2(2):397-402.
9. Parmar Kiran,Patel Niket, Shah Viral, Umesh Upadhyay. Nusil silicone technology in pharmaceutical drug delivery system: a review. International Journal Of Pharmaceutical Research And Allied Sciences. 2012;1(3):24-34.
10. Patel Nitesh, Rathva Sunil, Shah Viral, Upadhyay Umesh. Review on self emulsifying drug delivery system: novel approach for solubility enhancement. International Journal Of Pharmaceutical Research & Allied Sciences. 2012;1(3):15-20.
11. Neha Varde, Mehta Namita, Viral Shah, U. M. Upadhyay. Phytosomes: a potential phospholipid nanoparticulate carrier for the bioavailability enhancement of herbal extracts. International Journal Of Comprehensive Pharmacy. 2012;10(2);1-7.
12. Gohel Hitesh, Shahbaz G., Shah Viral, Upadhyay U. M. Drug eluting therapeutic contact lens. International Journal Of Pharmaceutical Research & Allied Sciences. 2012;1(4);16-21.
13. Darshna Joshi, Umesh Upadhayay, Jimish Shah, Viral Shah. Magnetisable implants for targeted drug delivery system. International Journal For Pharmaceutical Research Scholars. 2012;1(2):0-45.
14. Upadhyay U. M., Mehta N. K., Varde N. M., Joshi D. P., Shah Viral. Targeted drug delivery of protein and peptide into tumor cells: challenges and solutions. Journal of pharmaceutical research and clinical practice. 2012;2(3):1-8.
15. Upadhyay U., Bhavsar Dhaval, Varde Neha, Sini S., Shah Viral. Advances in GRDDS: raft forming system a review. Journal Of Drug Delivery & Therapeutics. 2012;2(5):20-25.
16. Viral Shah, Nikunj Trivedi, Niket Patel, U M Upadhyay. Gold nanoparticulate drug delivery system: a review. International Journal Of Comprehensive Pharmacy. 2012;6(1):15-23.
17. Umesh Upadhyay, Darshana Joshi, Nikunj Mehta, Jimish Shah, Viral Shah. Chitosan nanospheres as potential carrier delivery of pharmaceutical API’s. International Journal Of Pharmaceutical And Phytopharmacological Research. 2013;2(1);23-28.
18. Umesh Upadhyay, Shahebaz Ghadiyali, Hitesh Gohel, Viral Shah. Nanofibers based drug delivery system - a review. International Journal of Pharma. Research and Development. 2013;4(6):32-39.
19. Upadhyay M, Thakor Namita, Varde Neha, C. Sini, Shah Viral. PLGA/PLA microparticulate system: a boon for hydrophobic drug delivery. International Journal Of Applied Biology And Pharmaceutical Technology. 2013;3(3):121-132.
20. Parag Patel, Hardik Brahmbhatt, Umesh Upadhyay, Shah Viral. A review on increased therapeutic efficiency of drugs by pharmaceutical cocrystal approach. International Journal Of Pharmaceutical Sciences Review & Research. 2013;16(1):121-132.
21. Viral H Shah, Harshida G Patel, Karishma Patel, U M Upadhyay. Chronomodulated drug delivery system: a review. International Journal Of Pharmacy Review & Research. 2013;3(1);23-28.

**Magazine articles:**

1. Viral Shah, Manish Nivsarkar. Low Risk, Patient Friendly, Microneedle arrays: An emerging medical device for enhanced local/systemic, transdermal drug delivery. Cover story, Medical Plastic Data Service, May-June 2019; Page: 3-5.
2. Viral Shah, Kiran Kalia. Therapeuctic biologicals: Challenges and opportunities. Express Pharma. December 3, 2015.

**Conferences/SEMINARS/WORKSHOPS ATTENDED:**

* Attended and participated in a two day workshop on “Screening Techniques in Experimental Pharmacology (step-2005)” at Shirpur.
* Attended and participated in a one day workshop on “Recent Advances in Pharmaceutical Analysis (RAPA)” at Shirpur.
* Attended and participated in a two day National Conference on “Recent Trends in Phytopharmaceuticals and Nutraceuticals (RTPN)” at Shirpur.
* Attended a five day conference and workshop on statistical techniques in Pharmacy field held at Changa.
* Attended and made oral presentation at GUJCOST.
* Attended and Presented a poster at IPC 2009.
* Attended a 15 days staff development programme at Sigma Institute, Baroda.
* Attended a two day conference at Maliba pharmacy on statistical techniques.
* Attended the conference on BABE studies at UT University, Bardoli.
* Attended a Conference on QBD at Parul Institute of Pharmacy.
* Attended a state level seminar on Recent Advances in Bioinformatics by Atmiya Pharmacy College, Rajkot.
* Attended a one day comprehensive certificate programme by Institute of Pharmaceutical Education and Research, Pune.
* Done a certificate course on Feel Employable by College of Leadership and HR Development, Mangalore.