



To Whomsoever It May Concern

I hereby certify that the research work under reference submitted for the SUN Pharma Award 2020 has not been given any award in the past. Being the corresponding and lead author of all the manuscripts submitted, I have conceptualized the idea, designed and supervised the experiments. The data interpretation and critical evaluation thereof were carried out by me. The contributions of other authors have also been furnished below in separate research publications.

S. No.	Publication Details	IF
1.	<p>S.Urandur, Venkatesh T.Banala, Ravi P.Shukla, N. Mittapelly, G.Pandey, N. Kalleti, K.Mitra, S.K.Rath, R.Trivedi, P.Ramarao, P.R. Mishra (2018) Anisamide Anchored Lyotropic Nano Liquid Crystalline Particles with AIE Effect-A Smart Optical Beacon for Tumor Imaging and Therapy ACS Appl. Mater. & Interfaces 10(15) 12960-12974. (Corresponding author)</p> <p>Specific contribution: Sandeep Urandur (one of my PhD students) has synthesized and characterized Pluronic F127-Anisamide conjugate and developed Anisamide anchored NLCs. He has carried out Quasi-Elastic Light Scattering (QELS) experiments and performed complete Pharmaceutical characterization along with cell uptake through flow cytometry and imaging studies. N. Mittapelly and G. Pandey helped in pharmaceutical characterization, MS correction and formatting. P Ramarao helped in carrying out Small-Angle X-ray Scattering (SAXS) and Cryogenic Force Emission Scanning Electron Microscopy. K Mitra helped in Transmission electron Microscopy while N Kalleti and SK Rath helped in In vivo optical imaging. Ravi Shukla and Gitu Pandey (PhD students) helped in developing tumor model and tumor regression. B Venkatesh Teja (PhD students) helped in cell cycle analysis, characterization and statistical analysis. As a team leader and lead author I have conceptualized the idea, designed the experiment, and supervised this study as well as carried out data analysis and finally written and communicated the article.</p>	10.38
2.	<p>Venkatesh Teja Banala, Shweta Sharma, Puja Barnwal, Sandeep Urandur, Ravi P Shukla, Naseer Ahmad, Naresh Mittapalley, Gitu Pandey, Monika Dwivedi, Navodayam Kalleti, Kalyan Mitra, Srikanta Kumar Rath, Ritu Trivedi, Prabhat Ranjan Mishra (2018) Synchronized Ratiometric Co-Delivery of Metformin and Topotecan Through Engineered Nanocarrier Facilitate In-Vivo Synergistic Precision Levels at Tumor Site Adv.Healthcare Mater. 7(19):e1800300 (Corresponding author)</p> <p>Specific contribution: Venkatesh T Banala (one of my PhD students) has performed experiments and established Synergy between Metformin and Topotecan. He has developed lipid bilayer-camouflaged mesoporous silica nanoparticles (LB-MSNs) and loaded drugs using hydrophobic ion pair method. He has performed in vitro and in vivo experiments and developed animal model. N. Mittapelly and G. Pandey helped in pharmaceutical characterization, MS correction and formatting. K Mitra helped in Transmission electron Microscopy while N Kalleti and SK Rath helped in In vivo optical imaging. Ravi Shukla and Gitu Pandey (PhD students) helped in developing tumor model and tumor regression studies and Ritu Trivedi provided critical inputs during experiments. Shweta Sharma and Sandeep Urandur (both PhD students) helped in in-vitro studies and statistical analysis. Puja</p>	11.12

	Barnwal and Monika Dwivedi (Lab trainees) helped in sampling during in vivo studies. As a team leader and lead author, I have conceptualized the idea, designed the experiment and supervised this study as well as carried out data analysis finally written and communicated the article.	
3.	<p>Shweta Sharma, Ashwni Kumar Verma, Jyotsana Singh, B Venkatesh Teja, Naresh Mittapelly, Gitu Pandey, Sandeep Urandur, Ravi Shukla, Rituraj Konwar, Prabhat Ranjan Mishra* (2016) Vitamin B6 Tethered Endosomal pH-Responsive Lipid Nanoparticles for Triggered Intracellular Release of Doxorubicin ACS Appl. Mater. Interfaces 8 (44), 30407–30421 (Corresponding author)</p> <p>Specific contribution: Shweta Sharma (a PhD student) has performed experiments and generated data while Ashwni Verma helped in performing experiments and analyzing data. Naresh Mittapelly and Gitu Pandey (PhD students) were involved pharmaceutical characterization, MS correction and formatting. Jyotsana Singh (PhD student) and Rituraj Konwar helped in tumor regression studies and provided critical inputs during experiments respectively. Ravi Shukla (PhD students) helped in cell cycle analysis while B Venkatesh Teja (PhD student) and Sandeep (PhD student) helped in characterization and statistical analysis. As a team leader lead author I have conceptualized the idea, designed the experiment and supervised this study as well as carried out data analysis finally written and communicated the article.</p>	10.38
4.	<p>Sandeep Urandur, Venkatesh Teja Banala, Ravi Prakash Shukla, Shalini Gautam, Disha Marwah, Nikhil Rai, Madhu sharma, Shweta Sharma, Pratibha Ramarao, Prabhat Ranjan Mishra Theranostic lyotropic liquid crystalline nanostructures for selective breast cancer imaging and therapy Acta Biomaterialia 113, 522-540 (2020) (Corresponding author)</p> <p>Specific contribution: Sandeep Urandur (one of my PhD students) has synthesized Manganese oleate and developed theranostic lyotropic liquid crystalline nanostructures (LCN's) bearing betulinic acid. He has performed experiments and generated data using SAXS, Cryo-TEM and Cryo-FESEM along with ex vivo and in vivo studies. P Ramarao helped in carrying out Small-Angle X-ray Scattering (SAXS) and Cryogenic Force Emission Scanning Electron Microscopy. Shweta Sharma and Venkatesh Teja Banala (PhD students) helped in in-vitro studies and statistical analysis. Disha Marwah and Nikhil Rai (PhD student) helped in pharmaceutical characterization, MS correction and formatting. Shalini Gautam helped in photostability and in vitro release studies. Ravi Shukla and Madhu Sharma (PhD students) helped in developing tumor model and tumor regression studies. As a team leader lead author, I have conceptualized the idea, designed the experiment and supervised this study as well as carried out data analysis finally wrote and communicated the article.</p>	10.63
5.	<p>S Sharma, A Verma, G Pandey, N Mittapelly, and PR Mishra* Investigating the role of Pluronic-g-Cationic polyelectrolyte as functional stabilizer for nanocrystals: Impact on Paclitaxel oral bioavailability and tumor growth Acta Biomater. 26, 169-183 (2015). (Corresponding author)</p> <p>Specific contribution: Dr Mishra designed novel Pluronic-grafted cationic copolymer and employed as a functional stabilizer for nanocrystals (NCs) and demonstrated it enhances oral bioavailability through reversible P-gp modulation and reversible opening of tight junctions with significant reduction in tumor growth ensuing patient friendly “chemotherapy at home”. and supervised this study and carried out data analysis and interpretation of results. He has carried out data analysis, wrote and communicated the manuscript.</p>	10.63

Dr Prabhat Ranjan Mishra