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<b>M.Sc. (IITR), Ph.D. (JMI)</b>			
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<b>Personal Details</b>	Date of Birth	16 <sup>th</sup> MAR, 1979	
	Gender (M/F)	Male	
<b>Education</b>			
B. Sc. in Chemistry from CCS University Meerut in 1999.			
M. Sc. in Chemistry from Indian Institute of Technology, Roorkee ( <b>IITR</b> ) in 2002			
<b>Academic Achievements</b>			
1.	Qualified Graduate Aptitude Test in Engineering (GATE) in 2004.		
2.	Qualified CSIR-NET in June 2005.		
<b>Ph.D. Details</b>	<b>Title</b>	Interaction of Amino Acids with Carbohydrates and Biologically Important Dyes in Aqueous Medium	
	<b>Guide's Name</b>	Prof. Anwar Ali	
	<b>University</b>	Department of Chemistry, Jamia Millia Islamia, New Delhi-110025	
	<b>Year of Award</b>	2009	
<b>Appointments</b>			
<b>2021 to till date</b>	<b>Professor, Jamia Millia Islamia, New Delhi, India</b>		
2018-2021	<b>Associate Professor, Jamia Millia Islamia, New Delhi, India</b>		
2009- 2018	Assistant Professor, Jamia Millia Islamia, New Delhi, India		
2006-2009	Assistant Professor, Department of Chemistry, Ramjas College, University of Delhi, Delhi, India		
<b>Teaching Experience</b>			
Various topics of Physical Chemistry, Basic principles, and application of spectroscopy: Rotational, Vibrational, Electronic, Raman, ESR, NMR. Biophysical Techniques: Surface tension, Dynamic Surface Tension, Contact angle, Calorimetry, Applications of Ionic liquids in Biotechnology.			
<b>Research Specialization</b>	Protein Stability and Activity in different solvent medium (Ionic Liquids, Gemini Surfactants). Thermodynamics of liquid mixtures.		
<b>Running Research Projects</b>			

		1. Screening and formulation of commercially available antiviral drugs (AVDs) using choline-based ionic liquids against SARS-CoV2 infection. <b>(2021-2024, SERB).</b>
<b>Completed Research Projects</b>		<ol style="list-style-type: none"> <li>1. Study the effect of ionic liquids (ILs) on the activity of antimicrobial (AMPs) peptides: Application of ILs-AMPs non-covalent conjugates <b>(2017-2020, SERB).</b></li> <li>2. Gemini surfactants as a structure stabilizer for proteins under thermal denaturation <b>(Funded by the UGC).</b></li> <li>3. Study the effect of Synthesized Ionic Liquid on the Stability of Membrane Proteins in presence/ absence of Water. <b>(Funded by the SERB, DST).</b></li> <li>4. Study the effect of Synthesized Gemini Surfactants having different spacer group on the stability of Membrane Proteins in aqueous medium <b>(Funded by the SERB).</b></li> </ol>
<b>Ph.D. Supervised</b>		
1.	Dr. Jitendra Kumar Maurya	Interaction of Gemini surfactants with amino acids and their effect on proteins in aqueous medium
2.	Dr. Muzzaffar Ul-Hassan Mir	Study the role of gemini surfactant in protein stability in aqueous medium
3.	Dr. Meena Kumari	Role of ionic liquids in the stability and activity of proteins
4.	Dr. Upendra Kumar Singh	Effect of Ionic Liquids on the Protein Stability in Aqueous Medium
5.	Dr. Neeraj Dohare	Interaction of different type of non-steroidal anti-inflammatory drugs with model proteins in aqueous medium
6.	Dr. Neha Maurya	Interaction of Anticancer Drug with Biomolecules
7.	Dr. Farooq Ahmed Wani	Study the interaction of gemini surfactant with different amphiphiles and their thermodynamics
8.	Dr. Md. Abrar Siddique	Studies on the interaction of ionic liquid with antibacterial drug.
9.	Dr. Mehraj ud din Parrray	Effect of ionic liquids on protein renaturation via artificial chaperone mechanism
10	Dr. Juhi Sarawat	Study the effect of ionic liquids on the activity of antimicrobial peptides
11	Mofieed Ahmed	Characterization and application of collagen from fish waste and effects of ionic liquids on its conformational stability (Thesis submitted)
<b>M.Phil. Supervised</b>		
1.	Miss Neha	Study the interaction between amphiphilic drugs and hemoglobin in aqueous medium
2.	Miss Taruna Sharma	Study of the interaction of gemini and single-chain surfactants with lysozyme
3.	Mehraj ud din Parrray	Studies on the interaction of cationic single chain and gemini surfactants with human serum albumin

4.	Ab Raouf Bhat	Interaction of Imidazolium based Ionic Liquids with Rifampicin in Aqueous Medium
<b>M.Sc. Dissertation Supervised</b>		
<b>50</b>		
<b>Members of Societies</b>		
1.	American Chemical Society (ACS)	
2.	Indian Biophysical Society (IBS)	
<b>Indian Patent (Filed)</b>		
1.	Novel composition of pyrrole based ionic liquid with melittin as a potent antibacterial agent. Indian Patent Application No. <b>201911014935</b> Inventor: J. Saraswat and <b>Rajan Patel</b>	
2.	A process to synthesize novel benzimidazolium gemini surfactants as potential antifungal agent. Indian Patent Application No. <b>201811034845</b> Inventor: F. A. Wani, M. Abid and <b>Rajan Patel</b>	
<b>List of Publications</b>		
<b>Published</b>		
1.	Probing the impact of alkyl chain length of imidazolium ionic liquids on the conformational stability of collagen type-I from skin of Lutjanus erythropterus. Mofieed Ahmed, Amit Kumar Verma, Maqsood Ahmad Malik, Khalid Ahmed Alzahrani, <b>Rajan Patel</b> , <i>Journal of Molecular Structure</i> , 135855 (2023).	
2.	Recent Updates on Interaction Studies and Drug Delivery of Antimalarials with Serum Albumin proteins. Kashish Azeem, Iram Irfan, Qudsia Rashid, Shailja Singh, Rajan Patel, Mohammad Abid, <i>Current Medicinal Chemistry</i> , (2023).	
3.	A biophysical approach to study the impact of muscle relaxant drug tizanidine on stability and activity of serum albumins, <b>Rajan Patel</b> , B Singh, A Sharma, FA Wani, MA Siddiquee, A Anand, MA Malik, Shaeel Ahmed Al-Thabaiti, Imran Khan, <i>Journal of Molecular Recognition</i> , e3010 (2023).	
4.	Solution behavior of native and denatured beta lactoglobulin in presence of pyridinium based ionic liquids: A biophysical perspective of folding and refolding pattern of the protein, M ud din Parray, M Ahmed, AR Bhat, <b>Rajan Patel</b> , <i>Journal of Molecular Structure</i> 1274, 134448 (2023).	

5.	Collagen–PVA Films Plasticized with Choline Acetate Ionic Liquid for Sustained Drug Release: UV Shielding, Mechanical, Antioxidant, and Antibacterial Properties, M Ahmed, AR Bhat, AK Verma, <b>Rajan Patel</b> , <i>ACS Applied Bio Materials</i> 6 (2), 663-673 (2023).
6.	Spectroscopic and DFT study of imidazolium based ionic liquids with broad spectrum antibacterial drug levofloxacin, MA Siddique, J Saraswat, M ud din Parray, P Singh, S Bargujar, <b>Rajan Patel</b> , <i>Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy</i> 285, 12180 (2023).
7.	Experimental and Computational Characterisation of the Molecular Interactions between 1-Butyl-1-methyl-pyrrolidin-1-ium bis (trifluoromethanesulphonyl) imide and Human Serum, J Saraswat, S Kumar, KA Alzahrani, MA Malik, <b>Rajan Patel</b> , <i>ChemistrySelect</i> 8 (1), e202204159 (2023).
8.	Amphiphilic Micelles as Superior Nanocarriers in Drug Delivery: from Current Preclinical Surveys to Structural Frame works, FA Wani, K Behera, <b>Rajan Patel</b> <i>ChemistrySelect</i> 7 (44), e202201928 (2022).
9.	Biomimetic Synthesis of Au-Nps using Cassia fistula Flower Extract and Studies of their Protein Interaction, SH Parrey, M Ud Din Parray, S Manoharadas, M Altaf, AF Alrefaei, Ahmed Yacine M Badjah Hadj, <b>Rajan Patel</b> , Rabia Ahmad, Abbul Bashar Khan <i>ChemistrySelect</i> 7 (40), e202203042 (2022).
10.	Aggregation, wettability and radical scavenging activity of choline based ionic liquids in aqueous solution, AR Bhat, M Ahmed, FA Wani, Y Kumar, <b>Rajan Patel</b> , <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> 650, 129388 (2022).
11.	In-vitro self-assembly and antioxidant properties of collagen type I from Lutjanus erythropterus, and Pampus argenteus skin, M Ahmed, A Anand, AK Verma, <b>Rajan Patel</b> , <i>Biocatalysis and Agricultural Biotechnology</i> 43, 102412 (2022).
12.	In-silico study for the screening and preparation of ionic liquid-AVDs conjugate to combat COVID-19 surge, J Saraswat, U Riaz, <b>Rajan Patel</b> , <i>Journal of Molecular Liquids</i> 359, 119277 (2022).
13.	A multi-spectroscopic and computational simulations study to delineate the interaction between antimalarial drug hydroxychloroquine and human serum albumin, K Azeem, M

	Ahmed, T Mohammad, A Uddin, A Shamsi, MI Hassan, Shailja Singh, <b>Rajan Patel</b> , Mohammad Abid <i>Journal of Biomolecular Structure and Dynamics</i> , 1-17 (2022).
14.	Formulation of biocompatible microemulsions for encapsulation of anti-TB drug rifampicin: A physicochemical and spectroscopic study, AR Bhat, FA Wani, K Behera, AB Khan, <b>Rajan Patel</b> , <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> 645, 128846 (2022).
15.	Deciphering the role of alkyl chain length on interaction study of antidepressant drug-cationic surfactants in imidazolium based ionic liquid, D Kumar, M Parray, FA Wani, N Dohare, M Ali, <b>Rajan Patel</b> , AB Khan, <i>Journal of the Iranian Chemical Society</i> , 1-9 (2022).
16.	Physicochemical, antioxidant, and food simulant release properties of collagen-carboxymethyl cellulose films enriched with Berberis lyceum root extract for biodegradable active food packaging, M Ahmed, AK Verma, <b>Rajan Patel</b> , <i>Journal of Food Processing and Preservation</i> 46 (4), e16485 (2022).
17.	Transition from antagonistic to synergistic interaction in mixed micellar system by increase in alkyl chain length of alkyl trimethylammonium bromide, AB Khan, FA Wani, M ud din Parray, M Ali, N Dohare, <b>Rajan Patel</b> , <i>Journal of the Indian Chemical Society</i> 99 (1), 100309 (2022).
18.	Interfacial and antibacterial properties of imidazolium based ionic liquids having different counterions with ciprofloxacin, MA Siddiquee, <b>Rajan Patel</b> , J Saraswat, BS Khatoon, M ud din Parray, <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> 629, 127474 (2021).
19.	Effect of imidazolium-based ionic liquid on the antibacterial activity of an expired drug rifampicin, <b>Rajan Patel</b> , J Saraswat, <i>Journal of Molecular Liquids</i> 340, 116844 (2021).
20.	Development of oxadiazole-sulfonamide-based compounds as potential antibacterial agents, A Ali, P Hasan, M Irfan, A Uddin, A Khan, J Saraswat, Ronan Maguire, Kevin Kavanagh, <b>Rajan Patel</b> , Mukesh C Joshi, Amir Azam, Mohd Mohsin, Qazi Mohd Rizwanul Haque, Mohammad Abid, <i>ACS omega</i> 6 (42), 27798-27813 (2021).

21.	Dissociation of the DCF-Hb complex in presence of cationic micelles: A spectroscopic and computational approach,KA Alzahrani, <b>Rajan Patel</b> , <i>Journal of Molecular Liquids</i> <b>339</b> , 116628 (2021).
22.	Interaction and esterase activity of albumin serums with orphenadrine: A spectroscopic and computational approach, <b>Rajan Patel</b> , B Singh, A Sharma, J Saraswat, N Dohare, M ud din Parray, <i>Journal of Molecular Structure</i> <b>1239</b> , 130522 (2021).
23.	Role of herbs for elevating immunity against SARS-CoV-2: a concise review,A Anand, J Saraswat, <b>Rajan Patel</b> , <i>Universa Medicina</i> <b>40 (2)</b> , 173-185 (2021).
24.	Biogenic synthesis, in-vitro cytotoxicity, esterase activity and interaction studies of copper oxide nanoparticles with lysozyme,MA Siddiquee, M ud din Parray, MR Kamli, MA Malik, SH Mehdi, K Imtiya, M Moshahid Alam Rizvi, Hament Kumar Rajor, <b>Rajan Patel</b> , <i>Journal of Materials Research and Technology</i> <b>13</b> , 2066-2077 (2021).
25.	Bioengineered Matricaria recutita Extract-Assisted Palladium Nanoparticles for the Congo Red Dye Degradation and Catalytic Reduction of 4-Nitrophenol to 4,MA Malik, AA Alshehri, MA Abomuti, EY Danish, <b>Rajan Patel</b> , <i>Toxics</i> <b>9 (5)</b> , 103 (2021).
26.	Facile one-pot green synthesis of Ag–Fe bimetallic nanoparticles and their catalytic capability for 4-nitrophenol reduction,MA Malik, AA Alshehri, <b>Rajan Patel</b> , <i>Journal of Materials Research and Technology</i> <b>12</b> , 455-470 (2021).
27.	Behavior of lysozyme within ionic liquid-in-water microemulsions,K Behera, FA Wani, AR Bhat, S Juneja, MK Banjare, S Pandey, <b>Rajan Patel</b> , <i>Journal of Molecular Liquids</i> <b>326</b> , 115350 (2021).
28.	A computational approach for the screening of potential antiviral compounds against SARS-CoV-2 protease: Ionic liquid vs herbal and natural compounds, J Saraswat, P Singh, <b>Rajan Patel</b> , <i>Journal of molecular liquids</i> <b>326</b> , 115298 (2021).
29.	In-vitro cytotoxicity, synergistic antibacterial activity and interaction studies of imidazolium-based ionic liquids with levofloxacin,MA Siddiquee, J Saraswat, K Imtiyaz, AR Bhat, FA Wani, AM Alanazi, Azmat Ali Khan, M Moshahid Alam Rizvi, <b>Rajan Patel</b> <i>Journal of Molecular Liquids</i> <b>325</b> , 11512 (2021).
30.	Comparative binding analysis of noscapine and piperine with tRNA: A structural perturbation and energetic study,N Maurya, <b>Rajan Patel</b> , <i>Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy</i> <b>247</b> , 119089 (2021).

31.	Refolding of guanidinium hydrochloride denatured bovine serum albumin using pyridinium based ionic liquids as artificial chaperons, M ud din Parray, SY AlOmar, A Alkhuriji, FA Wani, ZA Parray, <b>Rajan Patel</b> , <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> <b>610</b> , 125737 (2021).
32.	Biscoumarin–pyrimidine conjugates as potent anticancer agents and binding mechanism of hit candidate with human serum albumin, DS Reddy, M Kongot, V Singh, MA Siddiquee, <b>Rajan Patel</b> , NK Singhal, <i>Archiv der Pharmazie</i> <b>354 (1)</b> , 2000181, (2021).
33.	Synergistic antimicrobial activity of N-methyl substituted pyrrolidinium–based ionic liquids and melittin against Gram-positive and Gram-negative bacteria. J Saraswat, B Aldahmash, SY AlOmar, K Imtiyaz, MMA Rizvi, <b>Rajan Patel</b> , <i>Applied Microbiology and Biotechnology</i> <b>104</b> , 10465-10479 (2020).
34.	Collagen extraction and recent biological activities of collagen peptides derived from sea-food waste: A review, M Ahmed, AK Verma, <b>Rajan Patel</b> , <i>Sustainable Chemistry and Pharmacy</i> <b>18</b> , 100315 (2020).
35.	Promising inhibitors of main protease of novel corona virus to prevent the spread of <b>COVID-19</b> using docking and molecular dynamics simulation, D. Kumar, K. Kumari, V. K. Vishvakarma, A. Jayaraj, D. Kumar, V. K. Ramappa, <b>Rajan Patel</b> , V. Kumar, S. K. Dass, R. Chandra, P. Singh, <i>Journal of Biomolecular Structure and Dynamics</i> , <a href="https://doi.org/10.1080/07391102.2020.1779131">https://doi.org/10.1080/07391102.2020.1779131</a> . (2020).
36.	Synthesis and interfacial properties of novel benzimidazolium based gemini surfactants with crocin: Spectral and dynamic surface tensiometric study, F. A. Wani, R. Ahmad, <b>Rajan Patel</b> , <i>Industrial &amp; Engineering Chemistry Research (ACS)</i> , Accepted (2020).
37.	Comparative in vitro cytotoxicity and binding investigation of artemisinin and its biogenetic precursors with ctDNA, N. Maurya, K. Imtiyaz, Md M. A. Rizvi, K. M. Khedher, P. Singh, <b>Rajan Patel</b> , <i>RSC Advances</i> , DOI (2020).
38.	Physicochemical, in-vitro therapeutic activity and biomolecular interaction studies of Mn (II), Ni (II) and Cu (II) complexes tethered with O2N2 ligand backbone. M. Kongot, D. S. Reddy, V. Singh, <b>Rajan Patel</b> , N. K Singhal, A. Kumar, <i>Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy</i> , (2020).

39.	Interaction of human serum albumin with diclofenac incorporated in cationic vesicles, <b>Rajan Patel</b> , F.A. Wani, F. Mahfooz, P. Mishra, Md A. Siddiquee, <i>Materials Today: Proceedings</i> , (2020).
40.	Noncovalent Conjugates of Ionic Liquid with Antibacterial Peptide Melittin: An Efficient Combination against Bacterial Cells, J Saraswat, FA Wani, KI Dar, MMA Rizvi, <b>Rajan Patel</b> , <i>ACS Omega</i> (2020).
41.	Synthesis and interfacial properties of novel benzimidazolium based gemini surfactants and their binding with crocin, FA Wani, R Ahmad, R Patel <i>Industrial &amp; Engineering Chemistry Research</i> 59 (37), 16283-16295 (2020).
42.	In-silico prediction of novel drug-target complex of nsp3 of CHIKV through molecular dynamic simulation, D Kumar, MK Meena, K Kumari, R Patel, A Jayaraj, P Singh <i>Heliyon</i> 6 (8), e04720 (2020).
43.	Esterase activity and interaction of human hemoglobin with diclofenac sodium: A spectroscopic and molecular docking study, N Dohare, MA Siddiquee, M Parray, A Kumar, <b>Rajan Patel</b> , <i>Journal of Molecular Recognition</i> , e2841. (2020).
44.	Green synthesis of silver nanoparticles from Delonix regia leaf extracts: In-vitro cytotoxicity and interaction studies with bovine serum albumin, MA Siddiquee, M ud din Parray, SH Mehdi, KA Alzahrani, AA Alshehri, <b>Rajan Patel</b> , <i>Materials Chemistry and Physics</i> 242, 122493. (2020).
45.	Effect of adiphenine hydrochloride on the structure of bovine serum albumin: Spectroscopic and docking study, N Dohare, M ud din Parray, MA Siddiquee, AB Khan, KA Alzahrani, <b>Rajan Patel</b> , <i>Journal of Molecular Structure</i> 1201, 127168. (2020).
46.	A manganese (II) complex tethered with S-benzylthiocarbamate Schiff base: Synthesis, characterization, in-vitro therapeutic activity and protein interaction studies, M Kongot, DS Reddy, V Singh, <b>Rajan Patel</b> , NK Singhal, A Kumar, <i>Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy</i> 231, 118123. (2020).
47.	Oxidovanadium (IV) and iron (III) complexes with O <sub>2</sub> N <sub>2</sub> donor linkage as plausible antidiabetic candidates: Synthesis, structural characterizations, glucose uptake, M Kongot, DS Reddy, V Singh, <b>Rajan Patel</b> , NK Singhal, A Kumar, <i>Applied Organometallic Chemistry</i> 34, e5327. (2020).



48.	Micellization, anti-proliferative activity and binding study of cationic gemini surfactants with calf thymus DNA, FA Wani, K Behera, RA Padder, M Husain, MA Malik, NS Al-Thabaiti, R Ahmad, <b>Rajan Patel</b> , <i>Colloid and Interface Science Communications</i> 34, 100221. (2020).
49.	Oxidovanadium (IV) and iron (III) complexes with O <sub>2</sub> N <sub>2</sub> donor linkage as plausible antidiabetic candidates: Synthesis, structural characterizations, glucose uptake and model biological media studies, M Kongot, DS Reddy, V Singh, R Patel, NK Singhal, A Kumar, <i>Applied Organometallic Chemistry</i> 34 (2), e5327 (2020).
50.	Ionic Liquid Green Assembly-Mediated Migration of Piperine from Calf-Thymus DNA: A New Possibility of the Tunable Drug Delivery System, N Maurya, ZA Parray, JK Maurya, A Islam, <b>Rajan Patel</b> , <i>ACS Omega</i> , 4,) 21005-21017. (2019).
51.	Refolding of acid denatured cytochrome c by anionic surface-active ionic liquid: Choice of anion plays key role in refolding of proteins, UK Singh, M Kumari, FA Wani, M ud din Parray, J Saraswat, P Venkatesu, <b>Rajan Patel</b> , <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> 582, 123872. (2019).
52.	Synthesis, Anticancer Evaluation and DNA-Binding Spectroscopic Insights of Quinoline-Based 1, 3, 4-Oxadiazole-1, 2, 3-triazole Conjugates, F Shamsi, B Aneja, P Hasan, B Zeya, M Zafaryab, SH Mehdi, MMA Rizvi, <b>Rajan Patel</b> , S Rana, M Abid, <i>ChemistrySelect</i> 4 12176-12182. (2019).
53.	ONS donor entwined iron (III) and cobalt (III) complexes with exemplary safety profile as potent anticancer and glucose uptake agents, M Kongot, DS Reddy, V Singh, <b>Rajan Patel</b> , NK Singhal, A Kumar, <i>New Journal of Chemistry</i> 43 (27), 10932-10947 (2019).
54.	Coumarin tethered cyclic imides as efficacious glucose uptake agents and investigation of hit candidate to probe its binding mechanism with human serum albumin, DS Reddy, M Kongot, V Singh, N Maurya, <b>Rajan Patel</b> , NK Singhal, F Avecilla, A Kumar, <i>Bioorganic Chemistry</i> 92, 103212. (2019).
55.	Effect of rifampicin on the interfacial properties of imidazolium ionic liquids and its solubility therein, AR Bhat, FA Wani, KA Alzahrani, AA Alshehri, MA Malik, <b>Rajan Patel</b> , <i>Journal of Molecular Liquids</i> 292, 111347. (2019).
56.	Probing the Intercalation of Noscapine from Sodium Dodecyl Sulfate Micelles to Calf Thymus Deoxyribose Nucleic Acid: A Mechanistic Approach, N Maurya, KA Alzahrani, <b>Rajan Patel</b> , <i>ACS Omega</i> 4, 15829-15841. (2019).

57.	Pyrrolothiazolones as Potential Inhibitors for the nsP2B-nsP3 Protease of Dengue Virus and Their Mechanism of Synthesis, VK Vishvakarma, P Singh, V Kumar, K Kumari, <b>Rajan Patel</b> , R Chandra, <i>ChemistrySelect</i> <b>4</b> , 9410-9419. (2019).
58.	A model to study the inhibition of nsP2B-nsP3 protease of dengue virus with imidazole, oxazole, triazole thiadiazole, and thiazolidine based scaffolds, VK Vishvakarma, N Shukla, K Kumari, <b>Rajan Patel</b> , P Singh, <i>Heliyon</i> <b>5</b> , e02124. (2019).
59.	Synthesis of novel benzimidazolium gemini surfactants and evaluation of their anti-candida activity, <b>Rajan Patel</b> , Farooq Ahmad Wani, Amaduddin, Babita Aneja, Gerard Sheehan, Kevin Kavanagh, Rabia Ahmad, Mohammad Abid, <i>ACS Omega</i> <b>4</b> , 11871-11879. (2019).
60.	A Theoretical Model to Study the Interaction of Erythro-Noscapines with nsP3 protease of Chikungunya Virus, D Kumar, P Singh, A Jayaraj, V Kumar, K Kumari, <b>Rajan Patel</b> . <i>ChemistrySelect</i> <b>4</b> (17) 4892-4900. (2019).
61.	Synthesis, characterization and mixed micellization study of benzene sulphonate based gemini surfactant with sodium dodecyl sulphate, FA Wani, AB Khan, AA Alshehri, MA Malik, R Ahmad, <b>Rajan Patel</b> , <i>Journal of Molecular Liquids</i> , <b>285</b> , 270-278. (2019).
62.	Potent drug candidature of an ONS donor tethered copper (II) complex: Anticancer activity, cytotoxicity and spectroscopically approached BSA binding studies, M Kongot, D Reddy, V Singh, <b>Rajan Patel</b> , NK Singhal, A Kumar. <i>Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy</i> <b>212</b> , 330-342. (2019).
63.	In vitro cytotoxicity and interaction of noscapine with human serum albumin: Effect on structure and esterase activity of HSA. Neha Maurya, Jitendra Kumar Maurya, Upendra Kumar Singh, Ravins Dohare, Md Zafaryab, M. Moshahid Alam Rizvi, Meena Kumari, and <b>Rajan Patel</b> . <i>Molecular pharmaceutics (ACS)</i> , <b>16</b> (3) 952–966. (2019).
64.	Comparative effect of cationic gemini surfactant and its monomeric counterpart on the conformational stability of phospholipase A2. M ud din Parray, N Maurya, FA Wani, MS Borse, N Arfin, MA Malik, <b>Rajan Patel</b> , <i>Journal of Molecular Structure</i> <b>1175</b> , 49-55. (2019).
65.	In vitro apoptosis-induction, antiproliferative and BSA binding studies of a oxidovanadium (V) complex. AK Manasa Kongot, Neeraj Dohare, Dinesh S Reddy, Neha Pereira, <b>Rajan Patel</b> , Amit Kumar. <i>Journal of Trace Elements in Medicine and Biology</i> <b>51</b> , 176-190. (2019).

66.	Dynamics of Ionic Liquids Assisted Refolding of Denatured Cytochrome c: A study of preferential interactions towards Renaturation, Upendra Kumar Singh, <b>Rajan Patel</b> , <i>Molecular Pharmaceutics, (ACS), 15 (7), 2684–2697.</i> (2018).
67.	Effect of cations and anions of ionic liquids on the stability and activity of lysozyme: Concentration and temperature effect. M Kumari, UK Singh, I Beg, AM Alanazi, AA Khan, <b>Rajan Patel</b> , <i>Journal of Molecular Liquids 272, 253-263.</i> (2019).
68.	A novel biocompatible NiII tethered moiety as a glucose uptake agent and a hit against methicillin-resistant Staphylococcus aureus. M Kongot, N Dohare, V Singh, DS Reddy, NK Singhal, <b>Rajan Patel</b> , A Kumar, <i>European Journal of Pharmaceutical Sciences 123, 335-349.</i> (2019).
69.	Dynamics of cytochrome c in surface active ionic liquid: A study of preferential interactions towards denaturation. UK Singh, M Kumari, <b>Rajan Patel</b> , <i>Journal of Molecular Liquids 268, 840-848.</i> (2019).
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3.	“Contact angle: Surface Characterization Technique” in FDP/Short term course (two weeks) on Handling of Analytical Instruments in Basic/Life Sciences, Feb 03 to 14, 2020.
4.	Non-covalent interaction of ionic liquids with melittin against bacterial cell, National Conference on Advanced Functional Materials at Department of Chemistry, Jamia Millia Islamia, New Delhi-110025, 2019.
5.	Importance of thermodynamic parameters in the binding of ionic liquids with proteins, National seminar on "Advances in Polymer Sciences and Technology" (POLY-2016), MARCH 29-30, 2016, JNU.
6.	An Insight in to the Binding of Pyrrolidinium Based Ionic Liquid with Human Serum Albumin, in National Symposium on Biophysics & Golden Jubilee Meeting of Indian Biophysical Society Organised by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, India, February 14-17, 2015.

7.	Interaction of N, N-dimethylpyrrolidinium iodide ionic liquid with bovine serum albumin by fluorescence spectroscopy and molecular modeling method: A comparative study, 4 <sup>th</sup> National symposium on Recent Advances in Analytical Sciences and Applications. Department of Chemistry, Jamia Hamdard, New Delhi on 9 <sup>th</sup> to 10 <sup>th</sup> February 2015.
8.	Interaction of Diclofenac with Bovine Serum Albumin in presence of Urea, 4 <sup>th</sup> National symposium on Recent Advances in Analytical Sciences and Applications. Department of Chemistry, Jamia Hamdard, New Delhi on 9 <sup>th</sup> to 10 <sup>th</sup> February 2015.
9.	Interaction between pyrrolidonium iodide ionic liquid and human serum albumin: A spectroscopic and molecular docking approach, Conference on Microscopy in Materials Science and Biomimetic Technology. DMSRDE, Kanpur on 26 <sup>th</sup> -28 <sup>th</sup> February 2015.
10.	Study the Effect of Ionic Liquid on the Channel form of Gramicidin in lipid membrane. National Conference on Interdisciplinary Approach in Chemical Sciences on 16 <sup>th</sup> December 2015.
11.	Ionic liquid: conformation and performance modulator for hen egg white lysozyme. National Conference on Interdisciplinary Approach in Chemical Sciences on 16 <sup>th</sup> December 2015.
12.	Interaction of novel dihydropyrimidines compound with bovine serum albumin: An experimental and computational approach, National Conference on Interdisciplinary Approach in Chemical Sciences on 16 <sup>th</sup> December 2015.
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14.	Investigate the interaction between bovine serum albumin and aceclofenac by spectroscopic and molecular modeling method, National Conference on Interdisciplinary Approach in Chemical Sciences on 16 <sup>th</sup> December 2015.
15.	A comparative study on the physicochemical properties of cationic, anionic, and nonionic surfactant in presence and absence of lysozyme, National Seminar on chemistry in Aligarh Muslim University, Aligarh, Uttar Pradesh. 22-03-2014.
16.	Interaction of pyrrolidinium based ionic liquid with bovine and human serum albumin: A spectroscopic approach, National seminar on metal toxicity and oxidative stress- Sep. 23-24, 2014, Department of Biosciences, Jamia Millia Islamia, New Delhi.

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21.	Thermodynamic and Micellization behavior of Adiphenine hydrochloride with Bovine serum Albumin in aqueous medium, NCRTPSB, December 16-18, 2013 (Jamia Millia Islamia, New Delhi)
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24.	Effect of Different Concentrations of Gemini Surfactant on Protein Conformation, National Symposium on Frontier of Biophysics, Biotechnology & Bioinformatics, January 13-16, 2013 (University of Mumbai, Mumbai)
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	International Interdisciplinary Science Conference (I-ISC, 2012) on Protein Folding and Diseases, Dec 8-10, 2012, (Jamia Millia Islamia, New Delhi).
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28.	Physico-chemical study of glycine in aqueous tetrabutylammonium, bromide at different temperatures. 9th National Symposium in Chemistry, February 1 – 4, 2007 (University of Delhi, New Delhi).
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<b>Conferences Organized</b>	
1.	Interdisciplinary Science Conference 2010-JMI (Interface between Physics and Biology)
2.	Interdisciplinary Science Conference 2011-JMI (Interface between Computer Science and Biology)
3.	Interdisciplinary Science Conference 2012-JMI (Protein Folding and Diseases)
4.	National Conference on Recent Trends in Protein Structural Biology 2013-JMI (Protein Structure-function)
5.	National Conference on Recent Trends in Molecular Virology 2014. 17-19 November, 2014
6.	National Symposium on Biophysics & Golden Jubilee Meeting of Indian Biophysical Society 2015. 14-17 February, 2015
7.	International Conference on Nanobiotechnology (ICN-2018), February 05 – 07, 2018
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10.	<b>Convener</b> , National Seminar on Biophysics (BIOPHYSIKA -2017)
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16.	<b>Convener</b> , National conference on Interdisciplinary Approaches in Chemical Sciences-2023 (NCIACS-2023)
<b>Administrative Job</b>	
1.	Member of Sub-purchase committee, CIRBSc, JMI.
2.	Member of Technical Committee, Special Centre for Nanosciences, Jawaharlal Nehru University, Delhi.
3.	Member of Technical Committee, CIRBSc, JMI.
4.	Member of Departmental Research Committee, CIRBSc, JMI.
5.	Coordinator of M.Sc. Biophysics, CIRBSc, JMI
6.	Coordinator of Extension Lectures, CIRBSc JMI. (2013-2016)
12.	Superintendent of B.Tech. Entrance Examination, Jamia Millia Islamia, in 2014.
13.	Assistant Superintendent of Annual exam of Distance Education 2016 of Delhi University.
14.	Assistant Superintendent of various Entrance Examination, Jamia Millia Islamia.
15.	Coordinator of 5 <sup>th</sup> Refresher course in Interdisciplinary Sciences, UGC-HRDC, JMI (2015).
16.	Hostel Warden, Jamia Millia Islamia.
17.	Coordinator of 7 <sup>th</sup> Refresher course in Interdisciplinary Sciences, UGC-HRDC, JMI (2019).
18.	Member of Flying Squid Entrance Examination 2019.
19.	Assistant Procter, Jamia Millia Islamia.

**(Dr. Rajan Patel)**