

AL SHIFA COLLEGE OF PHARMACY

DEPARTMENT OF PHARMACEUTICAL CHEMISTRY

ANNUAL REPORT FOR THE ACADEMIC YEAR 2019-20



The activities and achievements of Department of Pharmaceutical Chemistry during the academic year 2019-20 are presented. The constant involvement, dedication, co-operation and professionalism of all the faculty members and supporting staff need great accolades. **Alshifa College of Pharmacy secured the 76rd Rank among the pharmacy Colleges in India as per NIRF ranking.**

Two new labs viz., Pharmaceutical Chemistry Lab 6 and Pharmaceutical Chemistry Lab 7 were fully established and commissioned in 2019. In addition, “**Molecular Modelling Laboratory**” has been established. AICTE has sanctioned Rs. 11, 33,334/- (Rupees Eleven Lakh Thirty Three Thousand Three Hundred and Thirty Four only) as grand-in-aid towards **Modernization and Removal of Obsolescence-Rural (MODROB-Rural) Scheme** for establishing **Experimental Drug Development Centre**. Department has published many research articles in peer-reviewed national and international Journals. This year marked 100% placement for M.Pharm Pharmaceutical Chemistry students in various organizations. The major accomplishments of Department are summarized below:

Faculty

The department has eight permanent faculties, of which 4 holds Ph.D Degree and others are pursuing their Doctoral program from reputed National Universities.

Result

It is an immense pleasure to announce that the department has markedly improved the pass percentage in all Pharmaceutical chemistry related subjects for Diploma and Degree courses than the last academic year. The P.G students continue to excel with 100% result in University Examination. Some results are pending due to Covid-19 lockdown.

Results for B.Pharm, M.Pharm Pharm D

Most of the results of Academic Year 2019 – 20 are pending

Research Publications

The faculty of the department published **14** research articles in peer reviewed National and International Journals during the academic year 2019-20 with a Cumulative impact factor (Thomson Reuters) of 15.

1. Shebina P. Rasheed, Smitha Rani, Remya K, Bency Baby T., and Azeem A. K, Formulation and evaluation of antidandruff shampoo based on natural remedies. *World Journal of pharmacy and pharmaceutical sciences* 2019; 8(7):1649-1656.
2. Shebina P. Rasheed, Shivashankar M. Synthesis and comparative evaluation of traditional herbomineral.nanoceuticals for their haemopoietic activity. *International Journal of research in pharmaceutical sciences*, 2020, 11(3), 1-10
3. Ajeesh V, Determination of comprehensive in-silico determinants as a strategy for identification of novel PI3K α inhibitors, *Structural Chemistry*, volume 30, pages, 2019, 1761–1778(2019)
4. Ajeesh V, Design and Synthesis of Some Novel Erlotinib Derivatives As Potential EGFR Kinase Inhibitors, Royal Society of Chemistry special publication No 355, Conference on Drug Design and Discovery Technologies, <https://doi.org/10.1039/9781839160783-00095>
5. Ajeesh V, Design of enamides as new selective monoamine oxidase- β inhibitors, *Journal of Pharmacy and Pharmacology*, Volume 72, Issue 7, 2020, 916-926
6. Nija B, Arun Rasheed, Kottaimuthu A.,(2020) Development, characterization and pharmacological evaluation of amino acid prodrugs of (+)-Ibuprofen, *International of research in pharmaceutical sciences*, 11(3), 1-10 (**Accepted**).
7. Nija B, Arun Rasheed, Kottaimuthu A., (2020), Synthesis, characterization and pharmacological investigation of lysine and glycine conjugated amide prodrugs of (+)-ibuprofen, *International of research in pharmaceutical sciences*, 11(3), 1-9 (**Accepted**).
8. Sanal Dev, Evaluation of the antioxidant activity of various extracts of aerial parts of *Cassia absus*: An in-vitro techniques. *International Journal of Research in Pharmaceutical Sciences* 11 (2), 1545-1550
9. Sanal Dev, Estimation of total phenolic content and evaluation of in vitro antioxidant activity of different extracts of *Cassia absus* (Linn) by Superoxide radical, Iron chelating activity, *International Journal of Research in Pharmaceutical Sciences* 11 (2), 1545-1550
10. Sanal Dev, Design of enamides as new selective monoamine oxidase- β inhibitors, Royal Pharmaceutical Society, *Journal of Pharmacy and Pharmacology*, (2020).
11. Sanal Dev, Cholinesterase Inhibitory Activities of Selected Halogenated Thiophene Chalcones. Central nervous system agents in medicinal chemistry, *Cent Nerv Syst Agents Med Chem*. 2019; 19(1):67-71.
12. Sanal Dev, An Environment-Friendly Synthesis of Piperonal Chalcones and their Cytotoxic and Antioxidant Evaluation. *Letters in Drug Design & Discovery*, Volume 17, Issue 2, 2020.
13. Sanal Dev, Fe₃O₄ nanoparticles mediated synthesis of novel spirooxindole-dihydropyrimidinone molecules as Hsp90 inhibitors. *Archiv Der Pharmazie*, Volume 352, Issue1, January 2019

14. Arun Rasheed, Molecular docking analysis of capsaicin with apoptotic proteins, *Bioinformation* 16 (7): 555-560 (2020)

Course Attended

1. Shebina Rasheed One week STTP on recent trends in research Methodology, Restociety for research international. 25th to 29th May 2020.
2. Ajeesh V, NMR spectroscopy for Chemists and Biologists NPTEL, Swayam.
3. Ajeesh V, Biochemistry- NPTEL, Swayam.
4. Ajeesh V, Organic Chemistry, NPTEL Swayam.
5. Jemi Jacob, NPTEL Organic Chemistry in Biology and Drug Development
6. Jemi Jacob, NPTEL Medicinal Chemistry (12 weeks), 15th Jan to 15th April 2020
7. Jemi Jacob, NPTEL Biochemistry (12 weeks), 15th Jan to 15th April 2020
8. Jemi Jacob, NPTEL, Current Regulatory Requirements for conducting clinical trials in India for investigational new drug
9. Nija. B, One Week STTP on Advanced Research Methodology from 11 May, 2020 to 15 May, 2020 organized by REST Society for Research International (RSRI), Krishnagiri, Tamil Nadu, India.
10. Nija. B Participated in the IIC Online Sessions conducted by Institution's Innovation Council (IIC) of MHRD's Innovation Cell, New Delhi to promote Innovation, IPR, Entrepreneurship, and Start-ups among HEIs from 28th April to 22nd May 2020.
11. Nija. B, One week AICTE sponsored short term training programme on “Novel experimental techniques preclinical research for CNS disorders” between 27th July – 01 August, 2020.
12. Sanal Dev Completed SWAYAM,
13. Sanal Dev NPTEL course on “ACADEMIC WRITING”
14. Arun Rasheed NPTEL course on, Regulatory requirements for medical devices including in vitro diagnostics in India (Version_2.0)
15. Arun Rasheed NPTEL course on Medicinal Chemistry
16. Arun Rasheed NPTEL course on Current regulatory requirements for conducting clinical trials in India for investigational new drugs new drug (Version_2.0)
17. Arun Rasheed NPTEL course on Online Refresher Course in Pharmacy for Higher Education, SWAYAM, IIT-BHU.

Participation in STTP, workshop, seminar, symposium, conference

1. Shebina Rasheed Central Committee series of online training offered by Association of Pharmaceutical Teachers of India (APTI) Odisha Branch in association with APTI Central, conducted online between 26 to 29 of May 2020. Theme: Road Ahead, Scope of Online Teaching Advancement
2. Shebina Rasheed IIC Online Sessions conducted by Institution's Innovation Council (IIC) of MHRD's Innovation Cell, New Delhi from 28th April to 22nd May 2020
3. Shebina Rasheed successfully completed the module How to prepare your manuscript on Wednesday 29 April, 2020 Presented by Anthony Newman organized by Researcher Academy.
4. Shebina Rasheed Participated in international webinar impurity profiling of pharmaceuticals held on June 30 2020 organised by JSS College of Pharmacy Ooty.
5. Ajeesh V, International Conference on Drug Discovery. BITS-Pilani, Hyderabad, 2020
6. Ajeesh V, Two Days Workshop on NACC: Orientation for Faculty, Shifa Institute of Medical Sciences, 2020

7. Ajeesh V, Conference on Drug Design and Discovery Technologies (CDDT-2019), Ramaiah University of Applied Sciences, Bengaluru
8. Ajeesh V, AICTE Sponsored Quality Improvement Programme (Nov 11-16, 2019), Drug Discovery and analytical techniques: An Update in Education and Research, Manipal College of Pharmaceutical Sciences.
9. Ajeesh V, International Conference on Recent Trends in Nano Biogovernance, 2019, Al Shifa College of Pharmacy
10. Jemi Jacob, International conference on recent trends in Nano Biogovernance, organized by Al Shifa College of Pharmacy on 27th and 28th September 2019.
11. Neethu Varghese, International conference on recent trends in Nano Biogovernance organized by Al Shifa College of Pharmacy on 27th and 28th September 2019.
12. Neethu Varghese, One-day national seminar on Green chemistry in pharmaceutical sector- Current scenario and applications organized by K.T.N college of Pharmacy on 25th January 2020.

Presentations in National and International Conferences

1. Ajeesh V, Design and Synthesis of Some Novel Erlotinib Derivatives As Potential EGFR Kinase Inhibitors, Conference on Drug Design and Discovery Technologies, Ramaiah University of Applied Sciences, Bengaluru, 2019
2. Nija. B., presented an e-poster in National seminar on Green chemistry in pharmaceutical sector – Current scenario and applications held at KTN College of Pharmacy on 25th January 2020.
3. Sanal Dev, Conference On Drug Design and Discovery Technologies, 21st and 22nd November 2019, organized jointly by Ramaiah University Bangalore, Schrodinger LLC and Royal Society of Chemistry.
4. Sanal Dev, International conference on drug discovery (ICDD-2020) organized jointly by, BITS-Pilani, Hyderabad and Schrodinger LLC in BITS-Pilani, Hyderabad from 29th Feb. 2020 to 2nd March 2020.

Invited lecture

1. Sanal Dev, One Day National Seminar, “Recent Advances in Medicinal Chemistry for Drug Design and Drug Development” 31st January, 2020. Vivekanandha Pharmacy College For Women, Salem, Tamilnadu.

Webinars

1. Ajeesh V, RUSA-sponsored, International Webinar and Panel Discussion on: "PATENT & PATENTING PROCESS" Organized by the Department of Chemistry of "Chikitsak Samuha's Sir Sitaram and Lady Shantabai Patkar College of Arts and Science and V.P. Varde College of Commerce and Economics, Goregaon. 18th July 2020.
2. Ajeesh V, A quick glance on antibiotics, Al Shifa College of Pharmacy, 29th-2nd July. 2020
3. Ajeesh V, Institution's Innovation Council (IIC) of MHRD's Innovation Cell, New Delhi, 28th April to 22nd May 2020.
4. Ajeesh V, 4 day e-Faculty Advancement Initiative (e-FAI APTI Odisha) on the theme, Road Ahead: Scope of Online Teaching and Advancement from 26th to 29th May 2020.

5. Ajeesh V, Patentable inventions and Patent filing procedures,organised by Vels Institute of Science Technology and Advanced Studies on June 09th, 2020
6. Ajeesh V, 'National Webinar on Intellectual Property Rights' organized by Society of Pharmaceutical Sciences and Research, 21st June, 2020
7. Jemi Jacob, More than 70 national and international webinars attended,
8. Jemi Jacob Attended online FDP -3
9. Neethu Varghese, Webinar attended: 11
10. Nija. B., Academic ethics and plagiarism conducted by APTI on 19th May 2020.
11. Nija. B., Indian initiatives towards covid-19 medicine research conducted by APTI on 03 July 2020.
12. Nija. B., Full bright fellowship offered by UNICEF conducted by APTI on May 2020.
13. Nija. B., Understanding the practice school and its concept in UG pharmacy education conducted by Pharmacy council of India on 23rd May 2020.
14. Nija. B., Recent advances in drug design conducted by JSS, Mysuru and Schrodinger on 23rd June 2020.
15. Nija. B., Prepping tomorrows teachers conducted by APTI on 06 June 2020.
16. Nija. B., SIP international webinar series -3 conducted by Science institute of pharmacy on 15th July 2020.

Faculty Continuing Ph.D

The following faculty members of our department have registered for **Ph.D** at Annamalai University, Chidambaram.

1. Mrs. Nija. B
2. Mrs. Shebina P. Rasheed

Awards and Honours

1. Dr. Arun Rasheed become the **member of Prestigious American Chemical Society membership**, New York USA.