AL SHIFA COLLEGE OF PHARMACY

DEPARTMENT OF PHARMACEUTICAL CHEMISTRY

ANNUAL REPORT FOR THE ACADEMIC YEAR 2018-19



The academic year 2018-19 was enriched with vivacious achievements executed by the Pharmaceutical Chemistry Department. The constant involvement, dedication, cooperation and professionalism of all the faculty members and supporting staff need great accolades. Alshifa College of Pharmacy secured the 73 rd Rank among the pharmacy Colleges in India as per NIRF ranking Department of Pharmaceutical Chemistry was approved as a Research Centre under KUHS, Trissur for pursuing PhD in Pharmaceutical Chemistry. In 2018-19 the two new Pharmaceutical chemistry laboratories, allotted commenced its regular Practicals. The process to equip the new laboratories were initiated in this academic year

Some of the key initiatives, as well as some of the major accomplishments that have been achieved over the past year are as follows:-

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.

Result Analysis for B.Pharm (Academic Year 2018 - 2019)

S. No.	Subject	No. of Students Registered	No. of Students Appeared	No. of students of Passed	Percentage of Result
1.	Pharmaceutical Inorganic chemistry	102	102	90	88
2.	Pharmaceutical Analysis	102	102	89	87
3.	Pharmaceutical Organic chemistry I	100	100	76	76
5.	Biochemistry	100	100	89	89
6.	Pharmaceutical Organic chemistry II	105	105	99	96
7.	Pharmaceutical chemistry-V	86	86	75	87

Result Analysis for M.Pharm2018-19

 I st SEM
 33%

 II SEM
 88%

 IV SEM
 100%

Result Analysis for Pharm D Academic Year 2018

S. No.	Subject	No. of Students Registered	No. of Students Appeared	No. of Students Passed				Percentage			
				Distinction	First Class	Second Class	Total	of Result			
FIRS	FIRST YEAR Pharm D.										
1.	Pharmaceutical Inorganic chemistry	31	31	06	06	17	27	87%			
2.	Pharmaceutical Organic chemistry	31	31	07	06	17	22	73%			
3.	Medicinal Biochemistry	31	31	07	06	16	27	87 %			
THIF	THIRD YEAR Pharm D.										
4.	Medicinal chemistry	27	27	11	14	00	25	93.1 %			

Research Publications

The faculty of the department published <u>21</u> research articles in peer reviewed National and International Journals during the academic year 2017-18 with a Cumulative impact factor (Thomson Reuters) of 15

- Rasheed Arun, Yalavarthi PR, Cheramparambil H, Peesa JP, Abdul Khareem A. Synthesis and Pharmacological Evaluation of Acrylate-Based Gastrosparing NSAID Prodrugs. *Archiv der Pharmazie*, (Weinheim). 2017, 350(3-4). doi: 10.1002/ardp.201600325. Epub 2017 (Impact factor.2.02)
- Vadlamudi HC, Yalavarthi PR, Rasheed Arun, In vitro characterization studies of self-microemulsified bosentan systems. Drug Dev Ind Pharm. 2017, 43 (6):989-995.doi: 10.1080/03639045.2017.1287720. Epub 2017 Feb 16 (Impact factor.2.241)
- 3. JP Peesa, PR Yalavarthi, **A Rasheed**, VBR Mandava, A perspective review on role of novel NSAID prodrugs in the management of acute inflammation, 2016, *Journal of Acute Disease* 5 (5), 364-381.
- 4. KR Vandana, Prasanna Raju Yalavarthi, Harini Chowdary Vadlamudi, Jagadesh Kumar Yadav Kalluri, **Arun Rasheed**, Process, Physicochemical Characterization

- and In-Vitro Assessment of Albendazole Microcrystals, Adv Pharm Bull, 2017, doi: 10.15171/apb.2016.000
- Peesa JP, Atmakuri LR, Yalavarthi PR, Mandava Venkata BR, Arun Rasheed A, Pachava. Oxaprozin prodrug as safer nonsteroidal anti-inflammatory drug: Synthesis and pharmacological evaluation. Arch Pharm Chem Life Sci. 2017; 18. https://doi.org/10.1002/ardp.201700256
- Vadlamudi, H.C., Yalavarthi, P.R., Nagaswaram, T. Arun Rasheed, Peesa JP. J. Pharm. Investig. (2018). In-vitro and pharmacodynamic characterization of solidified self microemulsified system of quetiapine fumarate. Journal of Pharmaceutical Investigation. https://doi.org/10.1007/s40005-018-0397-1
- Sanal Dev. Synthetic Approaches to Various Class of Topoisomerase II Inhibitors, *Mini-Reviews in Organic Chemistry*" (accepted manuscript May 2017, Ref BSP-MROC-2016-322)
- 8. An environment-friendly synthesis of piperonal chalcones and their cytotoxic and antioxidant evaluation, accepted manuscript letters in drug design & discovery, October 2018.
- 9. Discovery of new class of methoxy carrying isoxazole derivatives as COX-II inhibitors: Investigation of a detailed molecular dynamics study, Journal of Molecular Structure, 2018, 1157, 19-28.
- Virtual Combinatorial Library Design, Synthesis and In vitro Anticancer Assessment of -2-Amino-3-Cyanopyridine Derivatives, Combinatorial Chemistry & High Throughput Screening, 2018, 21, 1-11
- 11. Refining the Structural Features of Chromones as Selective MAO-B Inhibitors: Exploration of Combined Pharmacophore-Based 3D-QSAR and Quantum Chemical.. ChemistrySelect,2018,2,(35),11645-11652.
- 12. Treatment of biowaste to pharmaceutical excipient. **Shebina P.Rasheed^a M.Shivashankar—SanalDev**—A.K.Azeem.,Materialstoday Proceedings,Vol.15,Part 2,2019,316-322.
- 13. **Balan P.**, HPTLC Fingerprinting of Ethyl acetate Extract of *Cynoglossum Zeylanicum* (Boraginaceae), European Journal of Biomedical and Pharmaceutical Sciences (2018) Volume: 5 Issues: 3 Page 901-906.

- 14. **Neethu Varghese, Jemi Jacob** Evaluation of Cytotoxic activity in the leaves of Nilgiriantus Ciliatus in Dalton Lymphoma asitis cells, International journal of Pharma and Biosciences.vol 9, issue 3, pp 2018-212
- 15. Jemi Jacob, Neethu Varghese, Shebina P Rasheed "Recent Advances in the Synthesis of Isoquinoline and its Derivatives: A Review", World Journal of Pharmacy and Pharmaceutical sciences, Volume 5 issue 7, Page 1821-1827
- 16. Karthika. S, K.Girija, Nisha Mathew entitled on Synthesis, Characterization and Evaluation of Anti-Oxidant and Anthelmintic Activity of Substituted Mannich Base Aryl Imidazole Derivatives, World Journal of Pharmaceutical Research Volume 5, Issue 5, 1018-1025.
- 17. **Shebina Rasheed**, Preparation and Characterization of Calcium Based Indian Traditional Drug: Varatika Bhasma-Herbomineral. Journal of Computational and Theoretical Nanoscience24(8):5931-5935, August 2018.

Awards and Honours

- ➤ Dr. Arun Rasheed published a book on 'Amino acid prodrugs of Nonsteroidal Anti inflammatory Drugs' by LAP LAMBERT Academic Publishing, Mauritius. ISBN No: 978-620-2-06017-2
- > Dr. Arun Rasheed is elected as prestigious Fellow of Institution of Chemist (F.I.C), Kolkatta.
- > Dr.Sanal Dev become the **member of Prestigious American Chemical Society membership**, New York USA.
- ➤ Shebina P Rasheed secured Second prize for the oral presentation on "Comparative evaluation of shankha bhasma—A herbo mineral Formulation under drug discovery process and Phytomedicine" Research day 2017 at Amrita school of Pharmacy, Amrita Vishwa Vidyapeetham, Amrita University, Kochi on March 2017.

Presentations in National and International Conferences

- Dr.Arun Rasheed presented research paper on 'Synthesis and characterization of biodegradable macromolecular prodrug of NSAIDS' on Research day 2017, held at Amrita school of Pharmacy, Amrita Vishwa Vidyapeetham, Amrita University, Kochi on March.
- 2. Dr. Arun Rasheed presented research paper on Brain targeting aminoacid Pro-drug of dexibubrofen as Neuro-protective agents: Synthesis, characterization and pharmacological evaluation at National Symposium on Biomaterial Scaffolds:

- "Recent Advances and Challenges on March 2017 at St James College of Pharmaceutical Sciences, Chalakudy
- 3. Dr.Sanal Dev presented research paper on Exploring the advances and challenges in Green and Protein Chemistry: Industry and Academia perspectives" 9th &10th March 2018 organized by the Department of Pharmaceutical Chemistry, JSS College of Pharmacy, Ooty.
- 4. Shebina P. Rasheed presented poster on Treatment of biowaste to pharmaceutical excipient in the **International conference on Biomaterials Bioengineering and biothernotics** [**BIOMET 2018**] held at VIT Vellore, India during 24-28 July.

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Invited lecture

 Dr.Sanal Dev delivered lecture on 'Development of Screening Protocol for Drug Repositioning Using Insilico Tools', during Research Day 2017 at Amrita School of Pharmacy on 17th & 18th March 2017.

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

Approved PhD guides

- 1. Dr. Arun Rasheed and Dr.Sanal Dev are appointed as approved Guide for Annamalai University, Annamalai Nagar, Chidambaram
- 2. Dr. Arun Rasheed and Dr.Balan approved as PhD guide in Pharamaceutical sciences, KUHS Thrissur.
- 3. Dr. Arun Rasheed approved as PhD guide in JJTU Rajasthan.