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The NGSMIPS Herald

The Official news letter of the Nitte Gulabi Shetty Memorial
Institute of Pharmaceutical Sciences, Mangaluru

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Contents

Editorial	2
Spicmacay Santoor Concert 2018	2
Campus Buzz	3-4
Diabetes drug could be the first to reverse the disease	4-5
Green Chemistry and the Pharmaceutical Industry	5-6
Department Activities	6
Students' Achievements	7
Deepotsav Celebration 2018	7
Best Oral Presentations in the Apticon 2018	8
Annual Sports Meet 2018	8

VISION

To achieve excellence in academics and research in pharmaceutical sciences with high degree of professional and ethical standards.

MISSION

To create an environment conducive for pursuing quality education and research in pharmaceutical sciences enabling the students and teachers attain high degree of competence to play a key role in national health mission

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NGSM Institute of Pharmaceutical Sciences

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From the Editor's desk



Dear friends and Colleagues,

This editorial is focused towards IPR related issues because Universities in India have slowly started shifting the focus from publication towards the patent which looks really ambitious as of now. Therefore I would like to share some important information with my readers of NGSMIPS Herald via this platform. Filing and securing a patent of products or process in our system is not so easy unless and until we provide a proper conducive environment for the research activity. Bare research activity is not sufficient, and therefore proper planning and vision of researchers play a critical role in this segment. Right from the protocol preparation researchers should plan accordingly for the filing of patent and before the protocol preparation comprehensive search of the project work should be conducted in various databases of patent along with the traditional Google search. Search operation takes ample time and therefore to prepare protocol sufficient time should be given to the students. Remember these activities take time and patience both, so kindly have the patience to get patent otherwise it will make you a patient. As per my understanding and of course these

are solely my view, let's see, how to get patent? To get a patent you need not to design a very fancy protocol, what you need design simple realistic protocol which has got the potential to solve the existing problem with the inventive step. Of course, fancy protocols are also required when you are looking for impact factor publication however, for the patent, realistic and simple study is sufficient. The first and foremost mantra is to develop a team of the researcher and find out the quality of the teammates and delegate the work accordingly. The second mantra is to maintain the proper secrecy of the project to avoid any conflict of interest. The third and supreme mantra is to find out a peaceful time to implement your work plan.

Well if you have got the above three mantras then trust me you are not far away from the success. Readers for your kind information I too need these three mantras for the success, and therefore it was just information not experience shared by me.

Dr. Akhilesh Dubey
Executive Editor

SPICMACAY SANTOOR CONCERT 2018



CAMPUS BUZZ

ANNUAL SPORTS MEET 2018

The annual sports meet of NGSM Institute of Pharmaceutical Sciences was held on 22nd November, 2018 at the University ground KSHEMA campus. The chief guest Dr. Murali Krishna V, Sports Advisor, Nitte (Deemed to be University) declared the meet open. The Principal Dr. C.S. Shastry welcomed the gathering and called upon the students not only to give their best but also exhibit sportsmanship spirit and fair play. The Physical Director Mr. Rajaram Shetty honoured the dignitaries with floral bouquets.

NATIONAL UNITY DAY

NSS unit of NGSM Institute of Pharmaceutical Sciences, Paneer has organized a programme on observation of National Unity Day on 31st October 2018 to celebrate the birth anniversary of Late Sardar Vallabhbhai Patel, at the college premises at 3.30 pm. Prof. Dr. C. S. Shastry, Principal, NGSM Institute of Pharmaceutical Sciences explained the contribution of Late Sardar Vallabhbhai Patel to unify India during post-independence of the country and for which Government of India initiated National Unity Day celebration for observing his birth anniversary every year. Then Prof. Dr. C. S. Shastry, Principal, took the Rashtriya Ekta Diwas pledge along with all the teaching and non-teaching staff members and students of the institution.



SPICMACAY SANTOOR CONCERT

Santoor concert was jointly organized by SPICMACAY Mangaluru Chapter and NGSM Institute of Pharmaceutical Sciences, Nitte (Deemed to be University), Mangaluru on 2nd November 2018

at KSHEMA Auditorium. One and half hour classical music concert was performed by Dr. Dhananjay Daitankar on santoor accompanied by Pt. Ravikiran Nakod on Tabla. Apart from the eminent people such as Dr. Satheesh Kumar Bhandary, Vice- Chancellor, Nitte (Deemed to be University), Dr. Alka Kulkarni, Registrar, Nitte (Deemed to be University), Dr. Indrani Karunasagar, Research Director, Nitte (Deemed to be University), these musicians have attracted hundreds of enthusiastic fans from all over the University.

Dr. C.S Shastry, Principal, NGSM institute of Pharmaceutical Sciences, thanked all the organizers of the programme for the wonderful arrangement.

DEEPOTSAV- 2018

Deepawali, a festival of light was celebrated at NGSM institute of Pharmaceutical sciences on 23rd November 2018 with great festive fervour and joy by the staffs and students of the college. The college campus looked stunning with attractive lights and rangolis. Dr. C.S Shastry, Principal, Dr. R. Narayana Charyulu, Vice Principal, conveyed best wishes to the students of NGSMIPS.

GUEST LECTURES

- The Department of Pharmaceutics organized a guest lecture on the topic 'Potential Applications of Stem Cells in Neurological Diseases' by Dr. Dinesh Upadhyay, Assoc. Professor at the Centre for Molecular Neurosciences, KMC Manipal on 6th October 2018 at Paneer Campus, Mangaluru.
- The Department of Pharmacy Practice organized a guest lecture on the topic "Prevention of Heart Diseases" by Dr. Subramanyam K, Professor and Head, Department of Cardiology, KSHEMA on 29th September 2018.
- The Department of Pharmaceutical Chemistry organized a guest lecture on the topic "Interpretation of NMR and Mass Spectroscopy" by Dr Balakrishna Kalluraya on 27th November 2018.
- The Department of Pharmaceutics and Pharmaceutical Regulatory Affairs organized a guest lecture on the topic "Drug Regulatory Affairs: Pharmaceutical Industry" by Mr. Manoj Kumar Singh Chauhan, Manager, RA & QA, PharmaLeaf, Bangalore on 8th December 2018.

STAFFS TRAINING

- Dr. Akhilesh Dubey**, Assistant Professor, Department of Pharmaceutics, had undergone two-week advance professional skill development training program on patent filing/ proceedings, searching, the patent specification, claims writing, trademark, Geographical indication, Copyright & Design filing procedures during 26 November -07 December, 2018 conducted by Rajiv Gandhi National Institute of Intellectual Property Management (RGNIPM), Nagpur. The training program was coordinated by Mrs Pooja Maulikar, Assistant Controller under the chairmanship of Mr. Pankaj Borkar, Head, RGNIPM, Nagpur. The training and demonstration were provided by the various eminent professors, retired controllers, current controllers, examiners, advocate and facilitators.
- Mr. Ravi GS**, Research Scholar, Department of

Pharmaceutics, had undergone in-plant training at Mylan Laboratories Limited, Speciality Formulations Facility (SFF), Bengaluru from 15th to 29th Dec 2018 for the observation and hands on training in all sections of quality assurance department of sterile formulations/Injectables plant. He got trained in the areas such as IPQA, Incident handling, Investigation, CAPA, Change control, Line Clearance, Compliances, BMR and Protocol review etc. He was also given an opportunity to visit R&D plant during the training period.

STUDENTS PARTICIPATION IN THE NATIONAL LEVEL CONFERENCES

- Ms. T C Aiswarya, Ms. Deepika John, Ms. Grace Sebastian M. Pharm students have attended and presented research paper in the 70th Indian Pharmaceutical Congress held at Amity University Campus, Delhi during 21st Dec to 23rd Dec 2018.
- Ms. Anitta Susan Alex, Ms. Hajar Ali Al-Balushi, Mr. Yadhukrishna P V, Ms. Vijayakrishna Aiswarya, Ms. Rashmeen Naaz, Ms. T C Aiswarya, Ms. Grace Sebastian and Ms. Deepika John, M.Pharm students have attended and participated in the 23rd Annual National Convention of Pharmaceutical Teachers of India (APTICON 2018) held at Swami Keshvanand Institute of Pharmacy, Jaipur during 5th Oct- 6th Oct 2018.

STAFFS PARTICIPATION IN THE NATIONAL LEVEL CONFERENCES

- Mr. Nandakumar U P and Dr. Vinay B C have participated and

presented research paper in the the 23rd Annual National Convention of Pharmaceutical Teachers of India (APTICON 2018) held at Swami Keshvanand Institute of Pharmacy, Jaipur during 5th Oct- 6th Oct 2018.

- Dr. R. Narayana Charyulu, Dr. Rajesh K S, Dr. Divya Jyothi, Mr. Sandeep DS, Mr. Bharath Raj K C have participated and presented their research findings in the form of posters and oral presentations in the 3rd International Conference on Academic and Industrial Innovations: Transitions in Pharmaceutical, Medical and Biosciences organized by Innopharm, held at Kala Academy, Panjim, Goa during 5th Oct- 6th Oct 2018.

ACHIEVEMENTS

Dr. Vinay BC, Research Scholar, Dept. of Pharmacy Practice, NGSM Institute of Pharmaceutical Sciences, Nitte (Deemed to be University), Mangaluru was awarded the Best Oral Presentation entitled "Development And Validation of Patient Information Leaflet For Coronary Heart Disease Patients" and Ms. Hajar Ali Hamed Al-Balushi, M. Pharm Student, Dept. of Pharmacy Practice, NGSM Institute of Pharmaceutical Sciences, Nitte (Deemed to be University), Mangaluru was also awarded the Best Oral Presentation entitled "Awareness of Pharmacovigilance among Pharmacy Students" at the 23rd Annual National Convention of Association of Pharmaceutical Teachers of India (APTICON) held during 5-6 October 2018, Jaipur.

Diabetes drug could be the first to reverse the disease

Dr. Pankaj Kumar

Assistant Professor

Department of Pharmaceutical Chemistry

No insulin injections, no avoiding sugar. A daily drug can reverse diabetes symptoms in mice, opening up the possibility of a much easier way for diabetics to keep their blood sugar level within safe limits.

In 2016, the number of people living with diabetes in the UK surpassed 4 million – an increase of 65 per cent over the course of a decade. Some 3.5 million have been diagnosed, but 550,000 are thought to have undiagnosed type 2 diabetes, which is linked to being overweight, and can develop later in life.

Many people develop type 2 diabetes as they age, as their body's response to insulin – a hormone that controls how much sugar circulates in our blood – gets weaker. Some people can manage their symptoms by sticking to a restrictive diet, or using drugs to remove sugar from their system, although many of these have side effects, such as weight gain or diarrhoea. These drugs can only help manage the disease – they cannot reverse it. "We don't have anything that can overcome insulin resistance," says Emily Burns of the charity Diabetes UK. As a result, many people end up having to inject insulin to make sure excess sugar is removed from their blood. Left untreated, type 2 diabetes can lead to heart and kidney disease, nerve damage, foot ulcers and vision problems.

A daily pill

A daily pill that restores the body's sensitivity to insulin may

make it easier to control the diabetes boom in rich nations where obesity is on the rise. Stephanie Stanford of the University of California, San Diego, and her team have found that giving mice with diabetes a drug that affects insulin signalling restores their ability to control their blood sugar levels. The drug was given daily, by mouth, and did not seem to have any side effects in the mice. The animals had developed the condition after a high-fat diet had made them obese. "This could lead to a new therapeutic strategy for treating type 2 diabetes," says Stanford, whose team believes that the drug could lead to fewer people with adult-onset diabetes becoming dependent on insulin injections. "If this new drug works as described, it could be used to reverse insulin resistance, but we need to know first if it does that safely in people," says Burns. The drug works by inhibiting an enzyme called low molecular weight protein tyrosine phosphatase (LMPTP), which seems to contribute to cells losing their sensitivity to insulin. By hindering LMPTP, the drug reawakens insulin receptors on the surface of cells – especially in the liver – which normally absorb excess sugar from the blood when they detect insulin.

Reversing diabetes

The gene that makes LMPTP has previously been linked with diabetes-like problems in people, prompting the team to investigate further. When the group stopped the gene working in mice, the animals no longer developed diabetes if fed a high-fat

diet. Just stopping this gene in the liver was enough to produce the same effect. “We found that LMPTP is a critical promoter of insulin resistance that develops during obesity,” says Stanford. So the team developed a drug to block the LMPTP enzyme’s actions in the liver. “Our inhibitor increased activation of the insulin receptor in the liver, and reversed diabetes without any apparent negative side effects,” says Stanford. “The elegant studies here provide proof of concept that targeting LMPTP in the liver improves glucose control and liver insulin signalling in animals,” says Daniel Drucker of the Lunenfeld-Tanenbaum Research Institute in Toronto, Canada, who says that targeting enzymes like LMPTP has long been a goal for researchers tackling diabetes.

Targeted treatment

So far, most of these efforts have focused on another tyrosine

phosphatase enzyme, but it has proven difficult to block this without also causing side effects, says Drucker. “Our compound is very specific for the target, and we do not see any side effects after treatment in mice for a month, but the next step is to rigorously establish if it’s safe for use in clinical trials,” says Stanford. “Finding a way to make cells respond to insulin again is an important and exciting strategy,” says Burns. “So far, the drug has only been tested in mice, and while some research in human genetics suggests this approach could work in people too, we need more research before we know how relevant this could be for people with type 2 diabetes.” Stanford’s team is now embarking on safety testing in animals. “The next step towards the clinic is to understand whether the treatment will be safe for people,” she says.

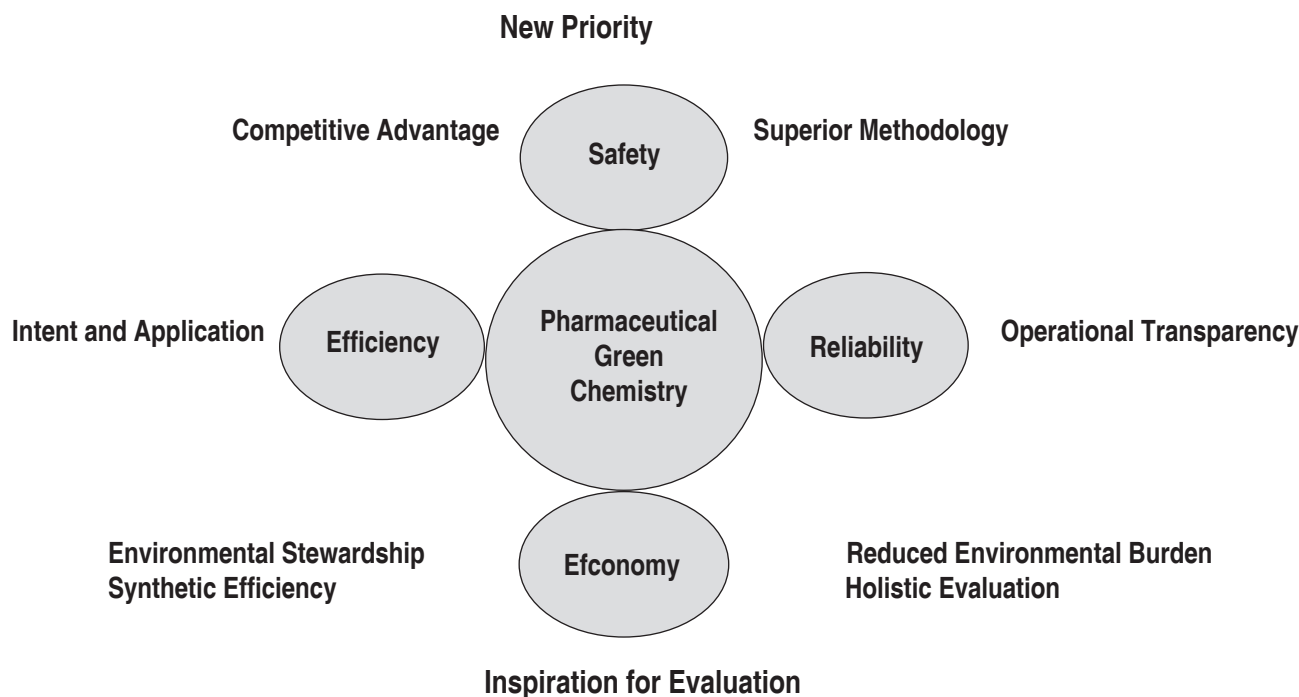
Green Chemistry and the Pharmaceutical Industry

Dr. Abhishek Kumar

Assistant Professor,

Department of Pharmaceutical Chemistry

Green Chemistry and Green Engineering have influenced in recent years the most important chemical industries and inevitably the Pharmaceutical industry is in the forefront for big changes towards “greener” feedstocks, safer solvents, alternative processes and innovative ideas. All these changes will increase the environmental credentials of the pharmaceutical and at the same time the cost of the operations. The pharmaceutical industry is embracing more and more “green” processes and technology operations. The research departments of many big drug manufacturers in the developed countries are advancing new methodologies, better biocatalysis reactions, less solvents and cuts in waste production. At the same time the pharmaceutical industry introduce safety and health regulations to protect the workers and environmental criteria for their products. Safety, Efficiency, Reliability and Economy are the four pillars of change and their promotion is considered as a competitive advantage, better environmental credentials and economic benefits.



The pharmaceutical industry is well known for its intensive uses of many petrochemical starting materials, conventional synthetic routes with conventional techniques, high energy requirements for industrial processes, high use of organic solvents for separation and purification and purification of high volume waste. The Pharmaceutical industry is the most profitable of the chemical industries and its growth increases

by 5-6% every year. On the global scale the Pharmaceutical industry produced drugs (2008) with the value of ~ 740 billion \$. Half of these drugs (market sales) are produced in USA (53.5%), EU countries 20% and Asia-Pacific (Japan, Australia) 18.5% of drugs value. The five countries with most pharmaceutical industries are USA, Germany, UK, Japan and France (global pharmaceutical, www.pharma-mag.com).

It is known that the Pharmaceutical industry produces more waste per Kg of product than other chemical industries (petrochemical, bulk & fine chemicals, polymer, etc). The pharmaceutical industry produces, for 6-8 steps organic synthetic routes, 25-100 kg of waste for every one Kg of product. The pharmaceutical industry depends on organic synthetic processes for its manufacturing of drugs and uses a variety of organic solvents for separation and purification of their products. Organic solvents are known for their toxic properties and the cost of their waste. It has been estimated that the big pharmaceutical company GlaxoSmithKline (GSK, USA) uses in its manufacturing large amounts of solvents and its non-water liquid waste contain 85-90% organic solvents. In the last decade pharmaceutical manufacturers embraced green chemistry ideas to promote their environmental credentials and increase the efficiency of the manufacturing processes. The Research and Development (R&D) departments of most pharmaceutical companies use a large

percentage of their capital for investment in research for new drugs and innovative "green" synthetic routes. It is estimated that the discovery, research, clinical trials and distribution of a new drug is valued 70 million \$. It is inevitable that pharmaceutical companies would like to invest also in better efficiency, less toxic reagents and solvents and environmental protection.

An additional problem with the pharmaceutical companies are the new regulations for environmental pollution of water sources, not only from industrial waste but also from traces of the drugs and medicinal products produced. It has been found that low concentration of drugs and their metabolites were found in rivers, lakes and in coastal regions, affecting aquatic organisms (fish, benthic organisms). There is great need for pharmaceutical manufacturers to change into "greener" methods, less toxic reagents and solvents and to minimize their effluents and solid waste.

Research/Review Publications / Paper Reviewed / Patent Applied/ Granted/Book/Chapter Published

Department of Pharmaceutical Chemistry

1. Abhishek Kumar, Pankaj Kumar, Jean Sandra Pinto, Bhashini, Akshata. Synthesis and Antimicrobial Evaluation of Some New Coumarinyl Schiff Base Derivatives. Research Journal of Pharmacy and Technology, Vol 11, Issue 11, November 2018, pp. 4946-4948.
2. Aminath Rajeeva C H*, Suresh P Nayak, Ganesh G, Vimutha Kamat, B C Revanasiddappa and Hemanth Kumar. Synthesis and Evaluation of Chalcones Carrying 1,2,3 Triazole Moiety for Antibacterial and Antioxidant Activity. Heterocyclic Letters, vol. 8, No. 1, Nov.-Jan 2018, pp. 49-59.

Department of Pharmaceutics

1. Vishnu T S, Akhilesh Dubey, Ravi G S and Hebbar S. Design of Proniosomal Gel Containing Eugenol as an Antifungal Agent for the Treatment of Oral Candidiasis. Indian Drugs, Vol. 55, Issue 9, September 2018, pp.55-57.
2. Naziya Rafi, Sandeep D S, Anoop Narayanan V. Regulatory Requirements and Registration Procedure for Generic Drugs in USA. Indian Journal of Pharmaceutical Education and Research, Vol. 52, Issue 4, Oct-Dec 2018, pp. 544-549.
3. Jobin Jose, Naziya Rafi. Pharmacovigilance in India in Comparison with the USA and European Union: Challenges and Perspectives. Therapeutic Innovation & Regulatory Science, Vol. 29, Issue 2, Dec 2018 pp. 216847901881277.
4. Akhilesh Dubey, Ravi Gunkadka Shriram, Srinivas Hebbar, Chakrakodi Shashidhara Shastry, Rompicherla Narayana Charyulu. Role of Communication skill and Good Documentation Practice in the Overall Development of the Pharmacy Graduates in India: An Observational study with Classroom Record – Daily Laboratory Record – Human Resource Record (CR-DR-HR) Model. Indian Journal of Pharmaceutical Education and Research, Vol. 52, Issue 4 (Sppl2), Oct-Dec 2018, pp. 158-
5. G S Ravi, R Narayana Charyulu, Akhilesh Dubey, Prabhakara

Prabhu, Srinivas Hebbar and Avril Candida Mathias. Nano-lipid Complex of Rutin: Development, Characterisation and In Vivo Investigation of Hepatoprotective, Antioxidant Activity and Bioavailability Study in Rats. AAPS PharmSciTech, Vol. 19, issue 8, Nov 2018, 3631-3649.

6. P Chaithanya, R Narayana Charyulu* and D S Sandeep. Design and Evaluation of Ebastine Fast Dissolving Oral Films. International Journal of Pharmaceutical Sciences and Research, Vol. 9, Issue 10, Oct 2018, pp. 4303-4308
7. G S Ravi, C Sathwik Krishna, R Narayana Charyulu, Akhilesh Dubey, Srinivas Hebbar. Matrix Tablet – containing solid dispersion is not suitable for sustained release delivery of Beclomethasone Dipropionate. Journal of Pharmaceutical Negative Results, Vol. 9, Issue 1, Jan-Dec. 2018, pp. 8-13.

Department of Pharmacy Practice

1. Ramya Kuzhikattu, Vayalil, K Jayarama Shetty, Uday Venkat Mateti. Assessment of Potential Drug-Drug Interactions in an Oncology Unit of a Tertiary Care Teaching Hospital. Indian Journal of Medical and Paediatric Oncology, Vol. 39, Issue 4, Oct.-Dec. 2018
2. Uday Venkat Mateti, Anantha Naik Nagappa, Ravindra Prabhu Attur, Shankar Prasad Nagaraju, Darshan Rangaswamy. Impact of Pharmaceutical Care on Clinical Outcomes among Hemodialysis Patients: A Multicenter Randomized Controlled Study. Saudi Journal of Kidney Diseases and Transplantation, Vol. 29, issue 4, 2018, pp. 801-808.

Department of Pharmacology

1. Dipam R Dadhaniya, Prasanna Shama Khandige, Ullas Prakash D'Souza, M P Gururaj and Nimmy Chacko. Toxicological Studies of Monosodium Glutamate – A Food Additive International Journal of Pharmaceutical, Chemical and Biological Sciences, Vol. 8, Issue 4, Oct-Dec. 2018, pp. 305-318.

CONGRATULATIONS DEAR STUDENTS

B.PHARM SEMESTER TOPPERS – DECEMBER 2018



Mr. Krishna Kishor H G
I Place (B.Pharm I Sem)
SGPA: 9.42 (536/600)



Ms. Pooja
II Place (B.Pharm I Sem)
SGPA: 9.42 (534/600)



Ms. Dhanya L Bolar
III Place (B.Pharm I Sem)
SGPA: 9.25 (525/600)



Mr. Puneeth Deepak Ail
I Place (B.Pharm III Sem)
SGPA: 9.42 (535/600)



Mr. S. Pramatha
II Place (B.Pharm III Sem)
SGPA: 9.33 (515/600)



Ms. Chandana
III Place (B.Pharm III Sem)
SGPA: 9.25 (521/600)



Ms. Apoorva
I Place (B.Pharm V Sem)
SGPA: 8.85 (546/650)



Ms. Neha Benedicta Fernandes
II Place (B.Pharm V Sem)
SGPA: 8.77 (534/650)



Ms. Reshal D'Souza
III Place (B.Pharm V Sem)
SGPA: 8.62 (529/650)

M.PHARM I SEMESTER TOPPERS – DECEMBER 2018



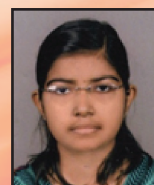
Ms. Anjali Krishna M
M.Pharm I Semester
(Pharmacology)
SGPA: 8.85 (540/650)



Mr. Sandeep A
M.Pharm I Semester
(Pharmacy Practice)
SGPA: 9 (552/650)



Ms. Deeksha S
M.Pharm I Semester
(Pharmaceutics)
SGPA: 9.23 (546/650)



Ms. Chinchumol Cyriac
M.Pharm I Semester
(Pharmaceutical Chemistry)
SGPA: 8.62 (539/650)

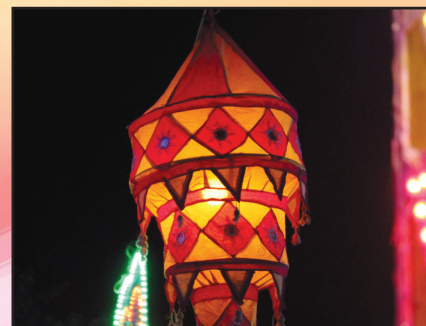


Ms. Jean Sandra Pinto
M.Pharm I Semester (Pharmaceutical Regulatory Affairs)
SGPA: 9.38 (570/650)
Overall Topper



Ms. Anupriya N R
M.Pharm I Semester (Pharmaceutical Quality Assurance)
SGPA: 8.23 (522/650)

DEEPOTSAV CELEBRATION 2018



BEST ORAL PRESENTATIONS IN THE APTICON 2018



Dr. Vinay BC



Ms. Hajar Ali Hamed Al-Balushi

ANNUAL SPORTS MEET 2018



Book Post