

Volume - 10
Issue - 4
October - December 2019

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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.

'For Private Circulation Only'



The NGSMIPS Herald

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



UG course
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NGSM Institute of Pharmaceutical Sciences

(A constituent Institute of Nitte (Deemed to be University))

Placed under Category "A" by MHRD, Govt. of India

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From the Editor's desk

Dear Friends and Colleagues,

This editorial would like to share about the mental health condition of researchers around the globe and the probable factors responsible for clinical anxiety and depression. One of the prominent organizations of the west has surveyed on a large scale and found that researchers are approximately five times more likely to experience clinical anxiety and depression than the general population. The situation is alarming and therefore being an academican and researcher, I am anxious. At this juncture, we should not ignore the findings of the survey, and perhaps we need to think in a more précised way about the lives of researchers because they are working in a highly competitive and unforgiving environment. The primary question arises here what causes them stress in their work environments. Worldwide researchers are under enormous pressure to publish, secure grants and earn positions. Another finding showed that faculties were flooded with academic work leading to poor research followed by rejection in publication and grants. What's working and what isn't about the existing research culture? How can create a more conducive and nurturing

environment for the researchers? What specific steps they would like their institutions to take to ease their pressure and help them flourish. The results of the survey are expected to help universities and research institutions worldwide to work towards addressing the problem of mental health in academia and creating a more positive research culture. However, the study also identify few solutions to the problem, such as leisure activities and past time can boost the researcher's productivity and creativity. Well, every stage of the researcher's career brings some of its challenges.

This editorial summarises the survey findings from the feedback and opinions expressed by the participants in the study. The current editorial aims to throw light on joy and stress triggers and overall mental health condition in academia. The editorial board of NGSMIPS Herald wishing all the researchers, academicians and students to be Healthy and Happy.

Dr. Akhilesh Dubey
Executive Editor



Workshops and Guest lectures conducted at NGSMIPS



Campus Buzz

Yes+ program

Along with quality education, it is essential to cultivate character and positive personality among the students. Emphasising these aspects NGSM Institute of Pharmaceutical Sciences organized Yes + program from 21st to 25th October 2019 for under graduate students. The program was led by Mr. Prashant Pai, Trainer, Art of living, Mangaluru. 23 students enthusiastically participated in the workshop. On the first day Dr. C.S Shastry, Principal cordially welcomed the guest trainer and Mr. Srinivas Hebbar Asst. Professor, Dept. of Pharmaceutics introduced the resource person and stated the importance and purpose of the workshop.

Rashtriya Ekta Diwas

The NSS unit of NGSM Institute of Pharmaceutical Sciences observed Rashtriya Ekta Diwas on 31st October 2019 to commemorate the birth anniversary of Sardar Vallabhbhai Patel. Explaining the significance of the day, Principal Dr. C.S. Shastry said that the Rashtriya Ekta Diwas (National Unity Day) is an opportunity for citizens to re-affirm their spirit of national unity and integrity. He also said that this year the Rashtriya Ekata Diwas has a special significance, as it marks the completion of the task of making Jammu & Kashmir and Ladakh an integral part of India. After this initial briefing, he administered the Rashtriya Ekta pledge to the students and staff. (Fig. 1)



Workshop on Women Empowerment & Self Defence

The Gender Sensitization Cell in association with the Womens Cell, Nitte (Deemed to be University) organized a workshop on "Women Empowerment & Self Defence" on November 7, 2019 at the Seminar Hall (Third Floor), New

Block, NGSM Institute of Pharmaceutical Sciences, Mangaluru. The resource persons were Mr. Karthik S Kateel and his mother, Mrs. Shobhalatha. Mr. Karthik is the General Secretary of JKD Association, Karnataka and the Founder & CEO of Swaraksha for Women, a Trust which is actively involved in conducting self-defense workshops for women. The workshop was coordinated by Dr. Marina Koland, Professor, Dept of Pharmaceutics and Dr. Ishwar Bhat, Head, Dept. of Pharmaceutical Chemistry. There were more than 140 participants who attended the workshop which included explanations, techniques, demonstration and discussions. At the end of the workshop, Dr. C.S. Shastry, Principal, NGSMIPS presented a letter of appreciation to Mr. Karthik S Kateel.

National Workshop on Outcomes Research Methodologies & Data Analysis using SPSS

A two-day National Workshop on "Outcomes Research Methodologies and Data Analysis Using SPSS" organized by the Department of Pharmacy Practice, NGSMIPS during 6th and 7th December 2019. The workshop was inaugurated by the Chief Guest, Prof. (Dr.) Satheesh Kumar Bhandary, Vice-Chancellor of Nitte (Deemed to be University), Mangaluru. The workshop was completely interactive with sufficient demonstrations of epidemiological study designs and Pharmacoeconomic methods such as Cost of Illness, Cost Minimization, Cost-Benefit, Cost-Effective & Cost-Utility Analysis. Dr. Uday Venkat Mateti, Organizing Secretary gave a brief introduction about the need and purpose of the workshop as an introductory note. Prof. (Dr.) C.S Shastry, Principal, NGSMIPS, welcomed the gathering and introduced the speakers. Dr. Praveen Kulkarni, Assoc. Professor, Community Medicine, JSS Medical College, Mysuru; Dr. Kapil Gudala, Manager Health Economic Modelling Team, Novartis, Hyderabad and Dr. Krishna Undela, Asst. Professor, Dept. of Pharmacy Practice, JSS College of Pharmacy, Mysuru. He also highlighted the importance of the workshop. Presiding over the function, Prof. (Dr.) Satheesh Kumar Bhandary, Vice-Chancellor, Nitte (Deemed to be University), enlightened the importance of SPSS software and its implications in health science research. Dr. Juno J Joel, Head Department of Pharmacy Practice delivered the vote of thanks.

Two-Day Workshop on Fundamentals of Clinical Research

A two-day workshop on "Fundamentals of Clinical Research" organized by the Department of Pharmacy Practice, during 11-12 December, 2019 at NGSMIPS. The workshop was inaugurated by the Chief Guest, Prof. (Dr.) Dhanesh Kumar, Principal, Nitte Institute of Physiotherapy, Mangaluru. The workshop was completely interactive with sufficient demonstration on the concerned topics on IRB reports, Recruitment, Screening, Randomization, Informed consent procedure, Case report forms, ADR reporting and Case studies. This, focused small group workshop was limited to 40 participants. Dr.Uday Venkat Mateti, Organizing Secretary gave a brief introduction about the need and purpose of the workshop as an introductory note. Prof. (Dr.) C.S. Shastry, Principal, NGSMIPS, welcomed the gathering and introduced the speakers: Dr. Girish Thunga P, Asst. Professor-Selection Grade, Dept. of Pharmacy Practice, Manipal College of Pharmaceutical Sciences, MAHE, Manipal and Ms. Vijayalaxmi K, Senior Clinical Trial Coordinator, Manipal Centre for Clinical Research, MAHE, Manipal. He also highlighted the importance of the workshop. Presiding over the function, Prof. (Dr.) Dhanesh Kumar, Principal, Nitte Institute of Physiotherapy enlightened the importance of Clinical Research and its implications on the human health. During the two-day workshop, three sessions were conducted on the theme of "Fundamentals of Clinical Research".

Guest Lectures

- On the occasion of World Food Day 2019, the Department of Pharmacy Practice, NGSM Institute of Pharmaceutical Sciences organized a guest lecture on

Awareness of Healthy Diet by Dr.PreranaHegde, Dietitian, Justice K.S. Hegde Charitable Hospital, Mangaluru on 16th October 2019. The aim of the guest lecture was to create awareness about the importance of healthy diet to students and staff.

- The Department of Pharmaceutics, NGSM Institute of Pharmaceutical Sciences organized a guest lecture on Nutraceuticals and Herbal Formulations, by Dr. B K Prashanth, Principal, Prasanna College of Ayurveda, Belthangady, Karnataka on 19th October 2019. The aim of the guest lecture was to showcase the potential of nutraceutical and herbal formulations.
- The Department of Pharmacology, NGSM Institute of Pharmaceutical Sciences organized a Guest Lecture on "Effective Grant Writing" by Dr.Tanuj Kanchan on 04th October 2019. The aim of the guest lecture was to provide information about requirements for the effective grant writing.
- The Department of Pharmaceutical Chemistry, NGSM Institute of Pharmaceutical Sciences organized a guest lecture on "Nanotechnology", by Dr. Harish Kumar Madhyastha, Associate Professor, Dept. of Applied Physiology, Faculty of Medicine, University of Miyazaki, Japan on 6th December 2019.
- The Department of Pharmaceutical Chemistry, NGSM Institute of Pharmaceutical Sciences organized a guest lecture on Making of an effective research proposal by Dr. M.S. Santosh, Associate Professor, Centre for Incubation, Innovation, Research and Consultancy (CIIRC) Jyothy Institute of Technology, Bangalore, on 13th December 2019.

List of Invited speakers

Sl. No.	Name of the faculty	Program	Title of Lecture	Date
1.	Dr. Uday Venkat Mateti	Resource Person in the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) student chapter one day workshop at Manipal College of Pharmaceutical Sciences, Manipal.	Patient Reported Outcomes	19.11.2019
2.	Dr. M Vijay Kumar	Resource person in the One Day National Conference on Basic Concepts of Biosafety and Ethics in Animal Experiments: Essential for Healthy Research held at SCS College of Pharmacy, Harapanahalli	Biosafety and Ethics in Animal Experiments	23.11.2019

Conferences/ Seminars/ Workshops attended and Poster/Oral Presentations by the staff

1.	Dr. Anoop Narayanan	International Conference on Advances in Polymeric Materials & Human Healthcare at International Centre, Goa	Curcumin loaded silver nanoparticles incorporated chitosan scaffolds: Fabrication and in vivo wound healing studies	16.10.2019 to 18.10.2019	Poster
2.	Dr. Vinay B C	AICTE Sponsored National Conference on Pharma-coepidemiology & Pharma-coeconomics held at JSS College of Pharmacy, Mysuru	Assessment of Health Related Quality of life among Coronary Heart Disease Patients	26.09.2019 to 28.09.2019	Poster
3.	Dr. B C Revana siddappa	National Conference on Trends in Materials and Chemical Sciences held at Manipal Institute of Technology, Manipal	Synthesis, molecular docking and anticonvulsant activity of 1,3,4 oxadiazole	04.11.2019 to 05.11.2019	Oral
4.	Ms. Chaithra R Shetty	National Conference on Trends in Materials and Chemical Sciences held at Manipal Institute of Technology, Manipal	In-silico Evaluation of Benzothiazole substituted 4 thiazolidinones	04.11.2019 to 05.11.2019	Oral
5.	Dr. M Vijay Kumar	Golden Global Health & Education International Conference and Awards to be held at Hotel Flora Creek, Dubai	Role of animal experiment and alternatives to animal	16.11.2019	Oral
6.	Dr. Murali Badanthadka	5 th IUPHAR World Conference on the Pharmacology of Natural Products & 51 st Annual Conference of Indian Pharmacology Society held at ICMR National Institute of Nutrition Hyderabad	Effect of animal strain on imiquimod-induced psoriasis disease.	05.12.2019 to 07.12.2019	Poster

List of Training programs attended by teaching staff members

Sl. No.	Seminar / Workshop / Training program on	Date	Participants
1.	MHRD's Global Initiative of Academic Network (GIAN) on Inventing New Chemical Entities from Traditional Medicines held at University of Mumbai, Mumbai	09.10.2019 to 18.10.2019	Mrs. Natasha Naval Aggarwal Ms. Banylla Felicity
2.	Train the Educator course for educators / trainers on Developing and sustaining India's capacity for pre-clinical drug discovery under MSDE-UKIERII Skills Thematic Institutional Partnership Program held at ICMR-NIN, Hyderabad	08.07.2019 to 12.07.2019	Dr. M Vijay Kumar
3.	Full time training course in HPLC – Mass Technology	15.05.2019 to 18.05.2019	Dr. Jainey P James

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

Department of Pharmaceutical Chemistry

1. Prerana Shetty, Nimmy Chacko, Abhishiktha Alva, Vijay Kumar. Wound Healing Potential of Psidiumguajava var. Pyrifer. Research Journal of Pharm. and Tech., Vol. 12, Issue 12, Dec. 2019, pp. 6067-6070.
2. K Aparna, Balakrishna Kalluraya, B C Revanasiddappa, Srinivas Hebbar. Antioxidant and Antimicrobial Activities of New Triazole-Linked Pyrazoline Hybrid Compounds. Journal of Applicable Chemistry, Vol. 8, Issue 6, 2019, pp. 2440-2448.
3. K Ishwar Bhat, Apoorva A, Abhishek Kumar, Pankaj Kumar. Synthesis and Antidiabetic Evaluation of Some New Coumarin Coupled 4-Thiazolidinone Derivatives. Research Journal of Pharm. and Tech., Vol. 12, Issue 11, Nov. 2019, pp. 5215-5218.
4. Sowmya Padejjar Vasanth, Boja Poojary, Revanasiddappa Bistuvalli Chandrashekarappa. Novel Arylpyridine-based 1,3,4-Oxadiazoles: Synthesis, antibacterial and anti-inflammatory evaluation. Journal of the Chinese Chemical Society, Vol. 66, 2019, pp. 638-650.

Department of Pharmaceutics

1. Rajesh Kumar, Seetha Harilal, Sheeba Varghese Gupta, Jobin Jose, Della Grace Thomas Parambi, MdSahab Uddin, Mohammed Ajmal Shah, Bijo Mathew. Exploring the new horizons of drug repurposing: A vital tool for turning hard work into smart work. European Journal of Medicinal Chemistry, Vol. 182, 2019, pp. 1-13.
2. Akhilesh Dubey, Bhashini Kotian, Ravi Gundadka Shriram. New Drugs and Clinical Trials Rules, 2019: Towards Fast-track Accessibility of New Drugs to the Indian Population. Indian Journal of Pharmaceutical Education and Research, Vol. 53, Issue 4 (Suppl), Oct. Dec. 2019, pp. 5451-5459.
3. A Muralidhara and Marina Koland. Development and Investigation of Thermo-Sensitive Organogel of Diclofenac Sodium for In-situ Implantation. International Journal of Pharmaceutical Sciences and Research, Vol. 10, Issue 10, Oct. 2019, pp. 4738-4747.

Department of Pharmacy Practice

1. B C Vinay, C S Shastry, Subrahmanyam Kodangala, Uday Venkat Mateti, Krishna Bhat. Development and Validation of Patient Information Leaflet for Coronary Heart Disease Patients. Perspectives in Clinical Research. Dec. 2019.
2. Varghese T P, Kumar A V. Predisposing Risk Factors of Acute Coronary Syndrome (ACS): A Mini Review. Journal of Pharmaceutical Sciences and Research, Vol. 11, Issue 5, 2019, pp. 1999-2000
3. Merlit James, Treesa P Varghese, Anjaly Vijayan, Pooleriveetil Padikkal Anagha, Muhas C, Mohsina Hyder. Link between Metabolic Syndrome and Diabetes Mellitus: A Pathophysiological Implication. International Journal of Scientific & Technology Research, Vol. 8, Issue 11, Nov. 2019, pp. 1935-1939.
4. Christina Pothan, Bibin Baby, AnusreeAshokan, Chinju Chacko, Pradeep Shenoy, Nandakumar UP. Drug usage pattern in Chronic Kidney Disease Patients undergoing maintenance Hemodialysis. Research Journal of Pharm. and Tech., Vol. 12, Issue 10, Oct. 2019, pp. 5024-5028.
5. Vishwanath Gouda, C S Shastry, Uday Venkat Mateti, Chetan Subrahmanya, Sharad Chand. Study on Steroid Utilisation Patterns in General Medicine Department. Research Journal of Pharm. and Tech., Vol. 12, Issue 10, Oct. 2019, pp. 1-6.

Department of Pharmacology

1. Divya, Prasanna Shama Khandige, Ullas Prakash D'Souza, Himanshu Joshi. Anto – epileptic Activity of Carica papaya seed extract in Experimental Animals. Research Journal of Pharm. and Tech., Vol. 12, Issue 12, Dec. 2019, pp. 1-6.
2. Jibin Jose, Adithi K, Rajesh K S, Bharath Raj K C, Gururaj M P, PrasannaShama K. Utilization and Price Variability of Cephalosporins in General Medicine Department of a Tertiary Care Hospital. Research Journal of Pharm. and Tech., Vol. 12 Issue 12, December 2019, pp. 5789-5793.

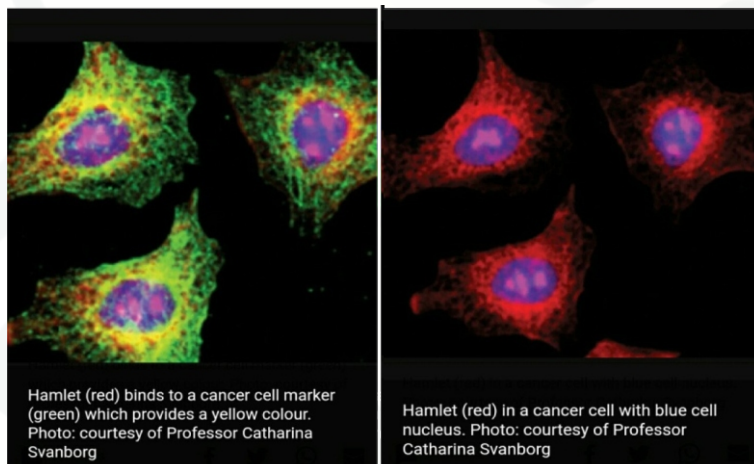
PORTENT OF CANCER:-CACNA1H

By: **Mr. Prashant Nayak**, Assistant Professor, Department of Pharmaceutics

Ms. Anisha Roshal Rodrigues, III Semester B. Pharm

“Our body is a magical phenomenon whose cure is withheld in itself”

With the advent of cancer and its growing numbers that have affected about 9.6 million deaths globally in the past year, the research and the scope for treatment of cancer has also increased worldwide. This been said, a recent study showed that a replica of a protein found in breast milk is being flagged as a potential cure for some cancers by a Swedish researcher. Its potential was discovered accidentally in 1995 by a research group at Lund University, Sweden, led by professor Catharina Svanborg. The experimental drug, HAMLET (Human Alpha- lactalbumin Made lethal to tumor cells), kills tumor cells without harming healthy cells. Here is a quick description about it. Gene:-CACNA1H Synonym:-Cav. 3.2 Protein :-Voltage dependent T-type Calcium channel submit alpha1H Organism:-Homo sapiens (Human being) Antibodies:-HPA039125 Protein Expression:-Cytoplasmic and nuclear expression in several tissues. Most abundant in leydig cells of testis, stomal cells in ovary and glandular cells. Predicted localization:-Membrane Number of transcripts:-7 RNA tissue category:-HPA (Cell line enhanced):- A549,AN3-CA, MCF-7,T-47D. GTEX:-Expressed in all FANTOM:-Mixed Data reliability description:-Antibody staining mainly not consistent with RNA expression dates. Preserved off-target binding observed and disregarded. Reliability score:-Approved HAMLET (Human Alpha lactalbumin made lethal to tumor cells) is a complex between alpha- lactalbumin and oleic acid that induces cell death in tumor cells. Endogenous alpha-lactalbumin is complexed with a calcium ion and serves as a cofactor in lactose synthesis, but has no tumoricidal properties. The alpha-lactalbumin must be partially unfolded to allow for release of calcium ion and replacement with an oleic acid molecule. The partially folded conformation is essential to the cytotoxicity of HAMLET, as mutagenesis studies have shown that completely unfolded alpha- lactalbumin does not retain the functional properties of HAMLET. The oleic acid is necessary for stabilizing this molecule in this partially unfolded state.



Mechanism of Action of Hamlet

- One of the most prominent targets of HAMLET once inside the cell is mitochondrion. Electron microscopy has revealed physical damage to the mitochondrial membranes and assay have found cytochrome c release and activation of the caspase cascade, the most notable ones being cascades 2,3 and 9. Cell death is not prevented by caspase inhibitors or by BCL-2 or p53 mutagenesis indicating that the traditional apoptotic caspase cascade is not the ultimate cause of cell death.
- Another target of Hamlet is the proteasome. The 26s proteasomes are activated in response to large quantities of unfolded HAMLET protein in the cytoplasm, but degradation of HAMLET by the proteasome is unusually slow.

Furthermore, in vitro studies have shown that HAMLET is capable of binding the catalytic 20s subunit of the proteasome and disabling its enzymatic activity, an effect that has never been demonstrated for any protein. However, proteasome inhibition alone does not seem to be responsible for HAMLET induced cell death as proteasome inhibitors have been shown to reduce the cytotoxicity of HAMLET.

- HAMLET also targets the nucleus, where it interacts with histones to interfere with transcriptional process. HAMLET has shown great affinity towards H2a, H2b, H3, H4 as well as entire nucleosomal units. This interaction irreversibly blocks transcription and leads to activation of p53. This process has been demonstrated to be similar to histone hyper acetylation and it was found that histone deacetylase inhibitions potentiated the effects of HAMLET.

References:-www.sciencedirect.com www.proteinatlas.com www.scmp.com

Staff and Students Achievements

Book Release: Sri N Vinaya Hedge, Honourable Chancellor, Nitte (Deemed to be University) released a textbook on “Pharmaceutical Jurisprudence” on 4th October 2019 authored by Mr. Sandeep D S, Asst. Professor, Department of Pharmaceutics, Dr. R. Narayana Charyulu Vice-Principal, NGSM Institute of Pharmaceutical Sciences and Ms. Shabana S, Asst. Professor, East-West College of Pharmacy, Bengaluru. The



textbook on “Pharmaceutical Jurisprudence” lucidly covers the current syllabus of 5th semester B. Pharm course and includes study objectives and revision exercises for each topic aiding the students in methodical and competitive preparation for exams.

NanoJatha: The M. Pharm II year students of the Department of Pharmaceutics, NGSM Institute of Pharmaceutical Sciences, Nitte (Deemed to be University), Paneer bagged all the three best poster presentation prizes in the NANO JATHA 2019 organized by Nitte (Deemed to be University) in association with Karnataka Science & Technology Promotion Society (KSTePS) on 5th December, 2019 at New Auditorium, ABSMIDS. The winners are as follow:



1st Prize:
Ms. Prathika Bhandary



2nd Prize:
Ms. Deeksha S



3rd Prize:
Ms. Ashwitha Naik

Book Post