



The NGS MIPS Herald

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



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VISION

To build a humane society through excellence in education and health care.

MISSION

To develop Nitte University as a centre of excellence, imparting quality education, generating competent, skilled manpower to face the scientific and social challenges with a high degree of credibility, integrity, ethical standards and social concern.

'For Private Circulation Only'

From the Editor's desk

Friends,

There has been much talk about research initiatives in academic institutions and centers of learning. Considerable weightage is given to research in educational institutions by UGC and accreditation bodies like NAAC and NBA while assessing the institutions. This has certainly given fillip to research in colleges and universities.

However, substantial amount of the funds allocated to research by the Government is not utilized. The teachers and research scholars should focus in utilizing these grants. Most of the teachers confine themselves to the conventional teaching assignments and not beyond. No doubt, getting funds for research demands a lot of tenacity, research aptitude and fine balancing between teaching and research work. Now many universities promote research culture by giving incentives and rewards for taking up active research.

Another area of concern is the quality of research. Perhaps due to lack of expertise, training and research facilities, the outcome of research projects remain mediocre at the best. This is reflected in publications in journals with low impact factors and minimum patent applications. This can be changed by providing the required infrastructure and support to the staff engaged in active research.

Needless to say that the research need not be confined to academic institutions and research centers. Perhaps the people from agriculture, traditional health care practitioners, veterinary doctors, teachers in pre university colleges, schools etc. can contribute. May be, their approach will be more relevant and application oriented.

The academic year 2013-14 is about to commence. Let us resolve to orient ourselves and students to the need of the time – focused approach to research and development.

With warm regards



C.S. Shastry, Editor in-Chief

Final Year B.Pharm Students who qualified at the GPAT examination during May 2013.



Mr. Shanon Ben Mascarenhas



Ms. Meghana Rao. S



Ms. Patel Bansari Pankajkumar



Mr. Lenson Paul D'Souza

NGSMIPS Students triumph at the Nitte University Inter Collegiate Tournaments



NGSMIPS girls receive their trophy at the Nitte University Inter Collegiate Throw Ball Tournament



NGSMIPS boys receive their trophy at the Nitte University Inter Collegiate Volley Ball Tournament

CAMPUS BUZZ

NGSMIPS students come out trumps at Nitte University Inter Collegiate Tournaments

At the Nitte University Inter Collegiate Throw Ball Tournament held on 3rd April, 2013, NGSMIPS girls won against Nitte Usha Institute of Nursing Sciences. The NGSMIPS boys were not far behind when they won the Inter Collegiate Tournament held on April 12, 2013 against A.B Shetty Memorial Institute of Dental Sciences.

Mr. Zainul Azeem Sheikh of Final Year B.Pharm was selected for the Nitte University Foot Ball Team for the year 2012-2013

Annual Day celebrated

NGSMIPS celebrated its Annual Day on 9th May, 2013 at the K.S. Hegde Auditorium, Derelakatte. The Chief Guest of the



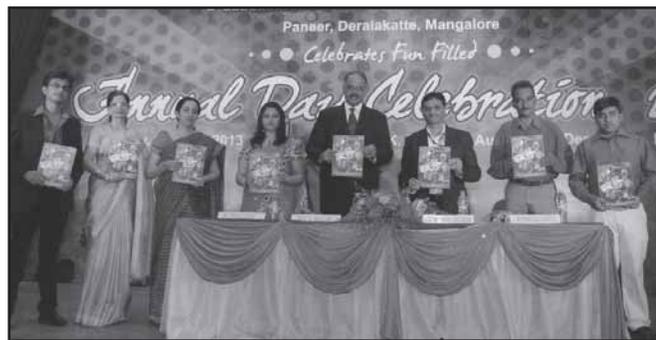
Dr. Niranjana N lights the inaugural lamp while Dr. C.S. Shastry, Dr. R. Narayana Charyulu and Ms. Rehab Tonse, Student President look on.

day was Dr. Niranjana N. Chiplunkar, Principal, NMAM Institute of Technology and the event was presided over by Dr. C.S. Shastry. On this occasion, the college magazine, 'Panacea' was released by Dr. Niranjana Chiplunkar. The Sri. K. Sriharsha Memorial and the Smt. G. Venkatanarasamma Memorial Gold Medals were awarded to Mr. Vivek Ghate, the best outgoing B.Pharm student and Ms. Jasmine Kalsi, the best outgoing



Mr. Vivek Ghate receives his gold medal from Dr. Niranjana N.

M.Pharm student respectively. In addition, prizes were also awarded to toppers in University examinations in B.Pharm and



The release of the college magazine, 'Panacea 2013'.

M.Pharm level for the academic year 2011-2012. The cultural and literary competitions held in the previous months also produced several winners with the all round trophy being bagged by the students of Final Year B. Pharm. Dr. K. Ishwar Bhat, Professor, Dept. of Pharmaceutical Chemistry was awarded the 'Best Researcher Award'. The formal function was followed by entertainment programmes of dances, songs, skits and other performances by students.

BRNS Grant for Dr. Prashanth Shetty

Dr. D. Prashanth Shetty, Professor, Department of Pharmacology was awarded a research grant of Rs. 12, 79,000.00 from the Board of Research in Nuclear Sciences (BRNS), Dept. of Atomic Energy (DAE), Govt. of India for the project titled "Radio Protective Effect of *Tanacetum parthenium* (Fever few) plant Extract with the Synthetic Parthenolide on the Organs of Swiss albino mice"

Guest lectures

A guest lecture was organized by the Women Empowerment Cell of NGSMIPS on May 17, 2013. Mrs. Matha Rani Mathias, Former Principal & Director, Sarosh Institute of Hotel



Mrs. Matha Rani Mathias

Management was invited to speak on, 'Power and Empowerment for Women' at this occasion. Her lecture stressed the need for women to empower themselves and thereby positively influence family and society in general. This lecture was well attended by students as well as faculty members.

Dr. Himanshu Joshi, Assistant Professor, Dept. of Pharmacology, NGSMIPS delivered a guest lecture on Intellectual Property Rights (I.P.R) at the Goa College of Pharmacy on 9-11 June 2013.



Final Year B.Pharm Students in front of Cipla

Final Year B.Pharm students visit pharma industries in Goa

Every year, the students of Final Year B.Pharm make a tour of some pharmaceutical industries as part of their curricular activities to see firsthand how pharmaceuticals are manufactured. This year, the students had the opportunity to visit Cipla, Verna, Goa and Goa Antibiotics Pvt. Ltd, Mapusa, Goa where they were given a bird's eye view of some of the technological processes involved in the manufacture of tablets, liquid orals etc. including those of antibiotics.

Appointment

Dr. Dayanand S. Puranik has been appointed as Associate Professor, Department of Pharmacy Practice with effect from May 2013.

DEPARTMENT ACTIVITIES

DEPARTMENT OF PHARMACEUTICAL CHEMISTRY

Research Publications

DR. K.ISHWAR BHAT, Professor

Synthesis, antitubercular, antibacterial and antifungal evaluation of novel Pyrazoline derivatives. *Ind J Het Chem* 2013; 22: 267-72.

DR. REVANA SIDDAPPA B.C, Assist Professor

1. Synthesis, antibacterial, anthelmintic, antifungal evaluation of novel Schiff bases carrying imidazole moiety. *Universal Journal of Pharmacy* 2013; 2: 145-48.
2. Synthesis, Antibacterial, Antifungal, Antitubercular Evaluation of Novel Amino Pyrimidines and Substituted 2-Oxo-4,6-Diphenyl-2,5-Dihydropyridine-3-Carbonitriles. *Ind J Het Chem* 2013; 22: 221-24
3. Synthesis and Biological Evaluation of Some Novel Imidazolinone Derivatives. *Ind J Het Chem* 2013; 22: 225-28.
4. Synthesis and biological evaluation of some novel

pyrazolines. *Annalen der chemischen Forschung* 2013; 1: 4-8.

MS. JAINEY P. JAMES, Lecturer

Antitumor and Antitubercular Activities, Microwave Assisted Synthesis of some Chalcones, *Asian Journal of Biochemical and Pharmaceutical Research* 2013; 2(3): 8-14.

PAPERS PRESENTED AT CONFERENCES

Dr. Revana Siddappa B.C presented a Poster entitled, "Antitubercular, antibacterial, antifungal evaluation of some novel pyrazolone derivatives" at the National seminar on 'Advanced Chromatographic Techniques' held at JSS College of Pharmacy, Mysore on 1st-2nd February 2013

NON TEACHING FACULTY

Mr. Chandrasekhar D, Librarian presented a paper entitled, "Role of Librarians in the Evidence based Medicine" at the 5th Annual Conference of Karnataka Health Sciences Library Association, on 24th and 25th January 2013 held at Father Muller's Medical College, Mangalore.

GOVERNMENT BANS THREE DRUGS

The government has suspended the manufacture, sale and distribution of three medicines — anti-diabetic drug pioglitazone and its combinations, painkiller analgin and anti-depressant Deanxit (a combination of Flupenthixol and Melitracen) — for human use. These drugs have already been prohibited in leading markets like the US, UK, European Union and Australia due to health risks associated with their use. The health ministry has suspended the drugs under Section 26A of the Drugs and Cosmetics Act, 1940.

While Pioglitazone is banned in France as it is believed to cause urinary bladder cancer and heart failure, it is sold in the US and Europe with a boxed warning.

Analgin is sold under various trade names, including Metamizole, Algozone, Algocalmin, Analgin, Dipirona, Novalgin, Neo-Melubrina and Optalgin. It was withdrawn from the market in various countries after it was found that it can

cause a potentially fatal condition called agranulocytosis. The third drug, a combination of Flupenthixol and Melitracen sold as Deanxit (Lundbeck), Placida (Mankind), Franxit (Intas) and Restfull (Lupin) is facing a ban because deanxit is prohibited for sale in Denmark, its country of origin. Under the Drugs and Cosmetic Rule 30-B, a drug cannot be marketed in India unless it is approved in its country of origin. The drug is banned in other countries as well as its users experienced cardiovascular effects, dizziness, fatigue, insomnia and vomiting.

The ban of pioglitazone has been received with a great deal of protest from doctors and the pharma industry in India since this would force lakhs of patients to move to more expensive alternatives and insulin. Pioglitazone, however continues to be sold in most other major markets, including the US, the UK, Japan, Canada. Besides, according to some, there is no evidence to show that the drug has caused any adverse drug

reactions in India, despite being marketed in the country since 2001. According to the Times of India, the decision to ban pioglitazone and its combinations will hit the Rs 700-crore market for such drugs and adversely impact a clutch of companies including Abbott, Sun Pharma, USV, Lupin, Ranbaxy and Wockhardt. Pioglitazone combination is a bigger market than plain pioglitazone itself which has posted a strong double-digit growth, with over 30 companies marketing the drug. Popular pain-reliever analgin is a relatively small market with brands like Baralgin and Novalgin (Sanofi Aventis), as most companies fearing a ban have already pulled

out from the market, industry experts said.

During 2010-2011, the Drug Controller General banned several drugs such as anti-diabetes medicine Rosiglitazone, anti-obesity drug Sibutramine, pain-killer Nimesulide for pediatric use, antibiotic Gatifloxacin, as well as Cisapride and Tegaserod, which are used for treating gastro-intestinal motility and irritable bowel syndrome, respectively.

Some of these government imposed bans, however, have been subsequently challenged in courts.

Courtesy: The Times of India, The Economic Times

MEDICINAL MUSHROOM : *Polyporus umbellatus*

Compiled by: **Mrs. Divya Jyothi**
Lecturer, Dept. of Pharmacognosy

Polyporus umbellatus is a rare, edible species of mushroom, found growing on roots of old beeches or oak. It is also called Lumpy Bracket and Umbrella Polypore. The common name Zhuling refers to the sclerotium of the mushroom, while Chorea is the fruiting body. Its sclerotium, called Zhuling, is a crude drug commonly used for urological disorders in Chinese medicine because of its diuretic effect (i.e. promoting urination). The fruiting body is composed of numerous (sometimes several hundred) caps. They are 1-4 cm in diameter, deeply umbilicate, light brown, and form the extremities of a strong, many branched stock. The compound fungus can be up to 40 cm in diameter. The pores are narrow and white. The stock is whitish grey, and originates from a strong, tuber like nodule that is underground. The flesh is white, rather soft when young, although hardens with age.

Polyporus umbellatus contains bioactive compounds with immunostimulating, anticancer, anti-inflammatory, and hepatoprotective properties.

MEDICINAL PROPERTIES OF POLYPORUS UMBELLATUS

Anti-tumor effects:

Polysaccharides extracted from the mycelial culture of *Polyporus umbellatus* inhibited the growth of Sarcoma 180 and Ehrlich solid cancers by 70% and 80%, respectively. From the crude drug Chorea, seven components named polyporusterone A, B, C, D, E, F and G, have been isolated which were cytotoxic to leukemia cells. Zhuling was also shown to be useful in reducing the postoperative recurrence rate of bladder cancer. Ergone (ergosta-4,6,8(14),22-tetraen-3-one), an ergosterol derivative isolated from *P. umbellatus*, was shown to be effective in killing various human cancer cell lines.

Diuretic effects:

Clinical studies showed that *Polyporus umbellatus* is an effective diuretic, without side effects, for the treatment of pyelonephritis, nephritis and urologic calculi. *Polyporus umbellatus* has been

cited a number of times as a herbal drug used to prevent kidney stones (urolithiasis). Aldosterone is a steroid hormone produced by the adrenal gland, and it regulates sodium and potassium balance in the blood. Ergone has also been shown to have an anti-aldosteronic diuretic effect.

Antioxidant and free-radical scavenging activity:

Zhuling in vitro protects red blood cells from 2,2-azo-bis(2-amidinopropane)dihydrochloride (AAPH)-induced hemolysis. The main free-radical scavengers involved, the triterpene carboxylic acids isolated from the methanol extract, polyporusterone A and polyporusterone B. It was shown that the polysaccharide extract from *P. umbellatus* had superoxide and hydroxyl radical scavenging activities.

Immune system enhancement:

A Chinese study found that *P. umbellatus* polysaccharides can offset the immunosuppression of the supernatant from S180 cell culture, possibly by down-regulating the synthesis and/or secretion of immunosuppressive substance by S180 cells.

Urogenital Chlamydia trachomatis:

Chlamydia trachomatis is the most common bacterial sexually transmitted disease. *P. umbellatus*, was found to possess inhibitory activity for urogenital chlamydia trachomatis.

Anti-protozoal activity:

P. umbellatus showed inhibitory activity against the protozoa *Plasmodium falciparum*, one of the main causative agents of malaria.

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- Ohsawa T, Yukawa M, Takao C, Murayama M, Bando H. Studies on constituents of fruit body of *Polyporus umbellatus* and their cytotoxic activity. *Chem Pharm Bull (Tokyo)*. 1992 40(1):143-7.
- Lee WY, Park Y, Ahn JK, Park SY, Lee HJ. Cytotoxic activity of ergosta-4,6,8(14),22-tetraen-3-one from the sclerotia of *Polyporus umbellatus*. *Bull Kor Chem Soc*. 2005 26(9):1464-6.



TEN MEDICINAL FOODS TO BOOST AND RESTORE YOUR HEALTH: HEALING FOODS

Compiled by: Mr. Amit Patil
Senior Lecturer

Department of Pharmaceutics

With many of us turning to antibiotics and flu remedies at the merest hint of a sneeze, we could be exposing our bodies to all sorts of side-effects as well as building immunity to their beneficial effects. Luckily, there are many ways to heal your body without hitting the medicine cupboard. While many conditions do require traditional medicine, to help treat minor conditions or supplement ongoing treatment, check out our top 10 medicinal foods.

1. The antibiotic: garlic:

Garlic has long had a reputation as a natural **antibiotic**. In fact, one study by researchers from the University of East London found that the **allicin** present in garlic was effective against the most antibiotic-resistant strains of “superbug” MRSA. While it is inadvisable to ditch the antibiotics without seeking professional advice, for minor conditions such as acne where long-term antibiotic use is required, it may be worth considering garlic as a natural alternative.

2. The flu remedy: manuka honey:

Manuka honey is packed with **antioxidants** and is also renowned for its **antibacterial** and **antiviral** properties. This powerful honey can be used to help treat many conditions including ulcers, acne and digestive problems, and it is also a good treatment for the flu and common cold. The honey is not only a great **immune-booster**, but its antiviral properties help protect against cold and flu symptoms while its antibacterial properties can tackle the bacteria that can lead to a sore throat.

3. The digestive aid: peppermint tea:

If you're suffering from nausea, flatulence or IBS, a cup of peppermint tea may help sort you out. Peppermint has a mildly **anaesthetic effect on the stomach lining**, which can help reduce nausea. In addition to this, it is also an **antispasmodic**, meaning that it can help **relieve muscle spasms** along the digestive tract, helping with the painful symptoms of **IBS**.

4. The antacid: bananas:

If you regularly suffer from **heartburn** or **indigestion**, it may be worth adding more bananas to your diet. Bananas are renowned for their **antacid** properties, which can soothe painful heartburn as well as **protecting against stomach ulcers**. As an added bonus, bananas can also decrease risk of stroke and lower blood pressure, making them an extremely healthy alternative to antacid medication.

5. The anti-depressant: chocolate

Chocolate is known to be high in **mood-boosting chemicals**, and findings published in the scientific journal *Nutritional Neuroscience* have suggested that the food can help reduce the symptoms of depression. The popular treat is not only high in **magnesium**, which can aid relaxation, but it contains **anandamide**, a neurotransmitter which can help regulate mood, and **phenylethylamine**, which raises **endorphin levels**.

However, the mood-boosting food should still be eaten in moderation!

6. The sleep aid: oats

If you're struggling to get a good night's sleep, try eating a small bowl of **porridge** before bedtime to help you drift off. Oats are a good natural source of **melatonin**, which is often taken as a sleep aid due to its ability to help **regulate the body's internal clock**. On top of this, they are also a rich source of **tryptophan**, which helps the brain to produce more melatonin as well as the relaxing chemical serotonin.

7. The painkiller: oily fish

As well as being good for your brain and eyesight, the fats in oily fish can act as natural painkillers for many conditions due to their **anti-inflammatory** properties. Studies have suggested that regularly eating oily fish can help reduce the pain of inflammatory conditions such as **arthritis**, while separate research has indicated that fish oil can help treat **lower back and neck pain**. Also - good news for the girls - researchers have found that fish oil can help reduce **menstrual pain** and cramps.

8. The antihistamine: capers

Capers may not be a typical store cupboard essential; however they could prove very beneficial to those suffering from allergies. Capers are rich in the **bioflavonoids rutin and quercetin** (also found in apples, red onion and tea), both of which have **antihistamine** and **anti-inflammatory** properties. Quercetin is particularly effective as an anti-allergy remedy when taken with bromelain; an enzyme found naturally in pineapple.

9. The stop smoking aid: milk

While quitting smoking is never easy and requires a huge amount of dedication, there are certain foods you can add to your diet to make it a bit easier to quit. Researchers at Duke University Medical Center conducted research into foods that may help smokers break the habit and discovered that smokers found **drinking milk before lighting up worsened the taste of their cigarette**. Although this approach won't work by itself, next time you crave a cigarette try drinking a glass of milk before to make the experience a little less pleasurable.

10. The travel sickness remedy: ginger

Ginger is an all round good health food, being high in **antioxidants** and **anti-inflammatory** compounds. However, ginger's most reputed benefit is its effectiveness at treating all types of **nausea**, making it a great alternative to motion sickness tablets when travelling. To help ease the nausea associated with travel sickness, try eating crystallised ginger or ginger biscuits, or drink some ginger tea or ginger ale.

Reference:

<http://www.realbuzz.com/articles/top-10-healing-foods-gb-en/#pagination-top>

STUDENT FORUM

As our final year students depart from this institution and on the threshold of either forming a career in the pharma field or go for PG studies, a couple of questions were put to them:

I. Which are three important qualities you would like to see in a pharmacist and why?

- Sincerity to his profession.
- Sharing his experience and knowledge with others.
- Giving importance to health rather than money.

- Cenoy Varghese, IV B.Pharm

- Dedication.
- Determination.
- Discipline.

Because it will help you build the character needed for a pharmacist.

- Avril, IV B.Pharm

- Good knowledge.
- Should be patient enough.
- Should clarify the doubts of people.

- Meghana, IV B.Pharm

- Communication skills.
- A good memory.
- Scientific aptitude.

- Deeksha, IV B.Pharm

II. Which is the best branch of M. Pharm to qualify in and why??

- Clinical Pharmacy
Because we are in direct touch with patients we will get good practical experience regarding desired and adverse effects of drug on patients.

- Cenoy Varghese, IV B.Pharm

- Pharmaceutics
Because the job opportunities in this field are more, and most of the industries prefer the candidates with degree in Pharmaceutics.

- Avril, IV B.Pharm

- Pharmaceutical Analysis
Because we will be learning in detail about different titration methods and how to analyse quality of drug.

- Deeksha, IV B.Pharm



Vivek Ghate

K. Sriharsha Memorial Gold Medal for the best out going B.Pharm student

Gold Medal Winners 2011-2012



Jasmine Kalsi

Sri. G. Venkatanarasamma Memorial gold medal for the best outgoing M.Pharm student

TOPPERS IN THE UNIVERSITY EXAMINATIONS 2011-12



Deeksha Suvarna
I B.Pharm



Vineetha K
II B.Pharm



Sharol Rodrigues
I M.Pharm
(Pharmaceutics)



Sonia Sunny
I M.Pharm
(Pharmacology)



Sahadiya Moosa Abdulla
I M.Pharm
(Pharmacy Practice)



Bhatt Bhavik Kumar R
II M.Pharm
(Pharmaceutics)



Meghana Rao S
III B.Pharm



Vivek Ghate M
IV B.Pharm



Jisha M. S
II M.Pharm
(Pharmaceutical Chemistry)



Gajera Nirav Vitthal Bhai
II M.Pharm
(Pharmacology)



Ansa Sarah Koruthu
II M.Pharm
(Pharmacy Practice)

Annual Day Celebrations May 9, 2013



Book Post