

## GURUNANAK COLLEGE OF PHARMACY & GURUNANAK TECHNICAL INSTITUTE Nagpur





Volume: 7

15 June 2013

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### **Technical** Article

### DAWN OF POST ANTIBIOTIC ERA

### Dr. V. A. Kilor

(Associate Professor)

Antibiotics, 'Magic Bullets' or 'Miracle drugs' of modern era, which are very powerful and effective drugs in the fight against infectious diseases. Since last 50 years these drugs have saved millions of lives. But today more and more people are dying from infectious diseases that were curable. World is entering an antibiotic crises. The reason is-certain bacteria are transforming themselves and developing increasing resistance to antibiotics. While some resistant strains remained confined to specific regions, others are spreading rapidly and are creating a situation which is fast becoming a Global public health problem. Situation is so serious that Resistance to antibiotics could bring the end of modern medicine.

General attitude towards antibiotics is very casual. Antibiotics are often prescribed in irrational and inappropriate ways, especially in India and other developing countries. Overprescribing and overuse are seen in public and private hospitals, clinics and pharmacies. They are cheap, easily affordable and can be picked up without prescription.

As a result, every antibiotic ever developed is at risk of becoming useless making once-routine surgical operations impossible. Antibiotic Resistance has taken 100,000 lives in America, 80,000 in China and 25,000 in Europe in a year. More than 80% of some of the most common bacteria are now resistant to Penicillin and Ampicillin. The pharmaceutical industry, large academic institutions or the Government are not investing necessary resources to produce next generation of newer safe and effective antimicrobial drugs due to economic reasons. Drug development pipeline is running dry the world over. In present scenario world is unprepared to cope up with this chief threat to human health. Union Health Minister of India Mr. Ghulam Nabi Azad faced questioning during current budget session

at parliament on the rising tide of Antibiotic Resistance in the country, "What if antibiotics do not work anymore?"

As a result efforts are being taken by the health ministry to encourage rational prescribing of antimicrobials and minimize development of resistance of antibiotics in India. The Government has already drafted the rules for amending Drugs and Cosmetic Rules 1945 for insertion of New Schedule H1 containing 91 antimicrobial drugs to ban their OTC sales. The Government has proposed labeling of such formulations with symbol Rx which shall be in red, conspicuously displayed on the left top corner of the label, and shall also be labeled with a Schedule H1 drug –Box warning.

To combat with the situation –

Monitoring of pharmacies is necessary so that antibiotics cannot be sold without prescription. It is necessary to ensure infection control protocols in hospitals.

Physician should prescribe appropriate antibiotic to the patient after having reports of pathological tests. It is necessary to initiate documenting prescription patterns and establish monitoring system for the same.

It is required to enforce and enhance regulatory provisions for use of human, veterinary and industries.

#### All of us need to wake up since we are at the dawn of Post-antibiotic Era.

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Mr. D. P. Dharkar delivered a speech on Pharmacy profession - an excellent career option in Lokmat Aspire Education fair – 2013 on 10/06/2013





'लोकमत आस्पायर एज्युकेशन फेअर-२०१३'च्या रविवारी झालेल्या 'फार्मसी प्रोफेशन!ॲन एक्सलंट करिअर ऑप्शन' या अंतिम सत्रात गरुनानक कॉलेज ऑफ फार्मसीचे प्राध्यापक देवव्रत धारकर यांनी विद्यार्थ्यांना मोलाचे मार्गदर्शन केले. आजच्या धावपळीच्या युगात औषधांचे महत्त्व फार मोठ्या प्रमाणात वाढले आहे. ही औषधे निर्माण करण्याचे तंत्रशुद्ध प्रशिक्षण देणारा अभ्यासक्रम म्हणजे फार्मसी व त्याच्या माध्यमातून स्वकर्तृत्वाने विद्यार्थी प्रगतीचे शिखर गाठू शकतात, असा मलमंत्र प्रा. देवव्रत धारकर यांनी टिला

विद्यार्थ्यांच्या भरगच्च उपस्थितीत झालेल्या या मार्गदर्शन सत्रामध्ये 'फार्मसी' विद्याशाखेतील डी.फार्म, बी.फार्म, एम.फार्म. यांच्यासारखे पर्याय व भविष्यातील संधी यासंबंधात विद्यार्थ्यांना विविध पैलूंची त्यांनी माहिती दिली. टॉक्सिकोलॉजी, फार्मांस्युटिकल ज्युरिसप्रुडन्स, औषधांची साठवण व व्यापार व्यवस्थापन , इनऑरगॅनिक केमिस्ट्री, फिजिकल केमिस्ट्री, बायोकेमिस्ट्री, टॉक्सिकोलॉजी व औषधनिर्मिती शास्त्रासंबंधी कायदे यांचा अभ्यासन्नंमादरम्यान सखोल अभ्यास होतो.

खासगी औषध उत्पादन कंपन्या. संशोधन आणि विकास, उत्पादन तपासणी, दर्जा नियंत्रण, औषधांचा परवठा, विषणन आणि विक्री अशा अनेक क्षेत्रांत 'फार्मसी' पदविका किंवा पटवीधरांना वाव आहे फार्मसीसोबतच त्यतम्थापनाची आवड असणाऱ्यांसाठी आता 'एमबीए'चा अभ्यासक्रमदेखील उपलब्ध आहे. योग्य प्रशिक्षणासह जेवढी मेहनत तेवढी प्रगती असे हे चोख क्षेत्र आहे, असे त्यांनी सांगितले. फार्मसी करण्यासाठी कठल्या पात्रतेची आवश्यकता आहे व व्यवसाय कसा स्थापन केल्या जाऊ शकतो यावरदेखील प्रकाश टाकण्यात आला. यावेळी विद्यार्थी व पालकांनी त्यांच्या मनातील प्रश्न विचारले व प्रा. धारकरांनी सर्व

### ACHIEVEMENTS

Following students of B. Pharm final year qualified GPAT – 2013 and NIPER – 2013.

Name of student	<b>GPAT Marks</b>	NIPER Rank
Tanvi Siriah	177	1196
Sanket Bhagwat	168	410
Ankit Sharma	158	1296
Supriya Mishra	145	2035
Vikrant Kamble	123	
Mangesh Raut	103	1783

#### **D.** Pharm Result

Year	Academic Topper	
D. Pharm-I	Mr. Atul Dewani (74.72 %)	
D. Pharm-II	Ms. Julee Dongre (72.9%)	

#### **Participation in Dance Competition**

GNCP & GNTI team participated in intercollegiate dance competition KASHTI-2013, organized by G. H. Raisoni School of Business Management, Nagpur on 18/02/2013.



**Republic day celebration:** College celebrated 64th Republic day with zeal and zest. The flag hoisting was carried out by Sardar Parshan Singhji Kalsi. Ex MLC and General Secretary of the Sikh Education Society. The function was followed by cultural programme and refreshment for staff and students.

# औषधनिर्माणशास्त्र : व्यावसायिक शिक्षणातून प्रगतीचा राजमार्ग

च्या काळात अनेक समस्यांनी सलेल्या भारतीयांनी वेळविळी या भेडसावत आहेत. मधुमेह, 194 या व अशा अनेक आरोग्यसमस्या 1 जनतेत दिसणारे सामान्व चित्र आहे. आजांगंवर मात करण्यासाठी घ्यावी नौषधे आज काळाची गरज झाली ननावरयक अशी हीं औषधे निर्माण तंत्रशुद्ध प्रशिक्षण देणारा शास्त्र हा अभ्यासक्रम व्यावसायिक

शास्त्र हा अभ्यासक्रम व्यावसायिक नेत मात्र दुर्लक्षित राहिलेला आहे.

### प्रवेशप्रक्रिया

निर्माणज्ञास्त्र हा व्यावसायिक ऑल इंडिया कौन्सिल ऑफ टेक्निकल (एआयसीटीई)च्या कक्षेत येत असून, र्गीय पदवी अभ्यासक्रम (बी. फार्म.) व रांन वर्षीय पदावुका अध्यासक्रम (डी. फार्स,) या दोन अध्यासक्रमांचा संमावेश आहे. चार वर्षीय पदवी अध्यासक्रमांसाठी १२ वी विज्ञान उत्तीर्ण असणे व एमटीसीईटी ही परीक्षा उत्तीर्ण असणे आवश्यक आहे. एमटीसीईटी परीक्षा दिली नसेल, तरी व्यवस्थापनाच्या अंतर्गत प्रवेश-प्रक्रियेच्या शेवटी प्रवेश मिळू शक्तो.

१२ वी विज्ञान फिजिक्स, केमेस्ट्री, गणित किंवा फिजिक्स, केमेस्ट्री, बायोलॉजी या विषयांत किमान ४७ टक्के गुणांसह आरक्षित प्रवेश किंवा ४५ टक्के गुणांसह सर्वसामान्य जागांसाठी प्रवेश मिळू शकतो.

१२ वी विज्ञानं ३५ टक्के गुणांसह उत्तीर्ण विद्यार्थ्यांना दोन वर्षीय डी. फार्म. या अभ्यासक्रमात प्रवेश मिळ शकतो.

बी. फार्म. व डी. फार्म. या दोन्ही अभ्यासक्रमात केंद्रीय प्रवेशप्रक्रियेद्वारे प्रवेश मिळालेल्या मागासत्वर्गाय विद्यार्थ्यांना १०७ टकके व इतर मागासवर्गीयाना ५० टक्के, शौर्मनाचा , शिष्यवृत्ती सवलत मिळते.

#### अभ्यासक्रमाचे स्वरूप बी. फार्म. हा चार वर्षीय व्यावसायिक पदवी

बा, काम. हा वा रवाय व्यावस अभ्यासक्रम असून, नागपूर विद्यापीठाने या वर्षीपासून सेमिस्टर पद्धतीचा नवा आधुनिक अभ्यासक्रम सुरू केलेला आहे. या विषयात लेखी व प्रात्यक्षिक असे विविध विषय आहेते. फार्मास्यटिक्स हा

विषय औषधनिर्माणाच्या तत्रज्ञानावर आधारित आहे. फार्मास्युटिकल ऑगॅनिक केमेस्ट्री, फार्मास्युटिकल मेडिसिनल केमेस्टी, फार्मास्युटिकल ॲनलिटिकल केमेस्ट्री हे

ावयेथ आवध्य रसायनुसारमच्या संखाल अच्यांसांशी संबधित आहेत. फ्रोमोकोलॉर्जा हा विषय औषधांचा शरीरावर होणारा परिणाम तसेच फार्माकॉन्गांसी हा विषय नैसर्गिक सोतांपासून औषधनिर्माण या विषययोशी संबधित आहे.

> याशिवाय, बायोकेमेस्ट्री, सूक्ष्म जीवशास्त्र, बायोटेक्नॉलॉजी, जेनेटिक्स, औषधनिर्माण न्यायशास्त्र (जर्णायनिक्रन

आववानमाण न्यापरास्त्र (फार्मास्युटिकल ज्युरीसपुडेंस) औषधनिर्माण व्यवस्थापनशास्त्र

(फार्मास्युटिकल मेंनेजमेंट), औषंघ दर्जा तिश्चितीशास्त्र (क्वालिटी ॲशुत्स) अशा विविध विषयांच्या सखोल अभ्यासाने विद्यार्थ्यांना आरोग्य व औषध शास्त्राचे सखोल

विषय औषध-साधनुशास्त्राच्या सखोल जान मिळून त्यांचा सर्वांगीण विकास होतो <sub>पर पर</sub>ाजगाः अर्घ्यासांशी संबंधित आहेत. फ्रोमीकोलॉजी हा अर्थना नगाः अभ्यासाफ्री मनविर्य आहेत. फ्रोमीकोलॉजी हा अभ्यासक्रमानंतराच्या

#### विविध संधी

दोन वर्षीय पदविका अभ्यासक्रम आज औषधी दुकानाच्या परवान्यासाठी आवश्यक आहे.

चार वर्षीय पदवी अभ्यासक्रमानंतर विविध औषधी कंपन्यांमध्ये प्रॉडक्शन, क्वालिटी कंट्रोलमध्ये रोजगार संधी उपलब्ध आहेत. शिवाय बी. फार्म.नंतर दोन वर्षीय डी. फार्म. अभ्यासक्रमालाही शिक्षक म्हणन मान्वता मिळते.

चार वर्षीय बी. फार्म. हा अभ्यासक्रम अभियांत्रिकी समकक्ष असून, दोन वर्षीय पदव्युत्तर एम. फार्म. ही पदवी घेतल्यास विविध औषध कंपन्यांमध्ये रीसर्च व डेव्हलपर्मेट वैज्ञानिक म्हणून उत्तम संधी मिळते. दोन वर्षीय पदव्युतर एमबीए व फार्मास्युटिकल एमबीए या पदवीने मेनेवर्मेंट क्षेत्रात उत्तम् संधी मिळतात. एम. फार्म. अभ्यासक्रम पूर्ण केल्यानंतर विविध पदवी (बी. फार्म.) अभ्यासक्रम असलेल्या महाविद्यालयात प्राध्यापक म्हणून काम करता येते. तंत्रशिक्षण अभ्यासक्रम असल्यामुळे त्यासाठी नेटसेट परीक्षा उत्तीर्ण करण्याची गएज नसते.

बी. फार्म नंतर जीपीएटी ही परीक्षा उत्तीर्ण झाल्यास एम. फार्म. अभ्यासक्रमासाठी केंद्र सरकारची शिष्यवृत्तीही मिळते.

असे हे औषधनिर्माणशास्त्र अभ्यासक्रम आजच्या काळात व्यावसायिक शिक्षणातून प्रगतीचा राजमार्ग साधणारे आहेत. हे सर्वांना कळावे म्हणून हा लेखप्रपंच.

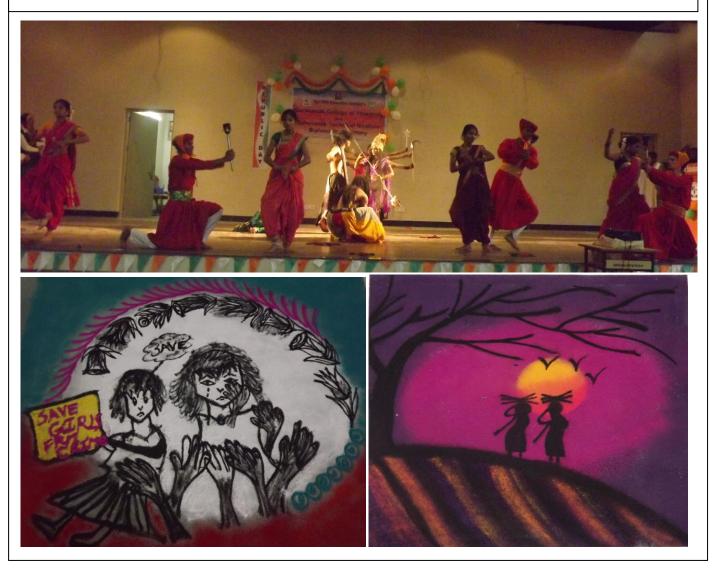
> प्रा. देवव्रत प्रमोद धारकर ९८२३६३९८२८

### EVENTS

### Zenith & Zest 2012-13



The Annual social gathering "Zenith" and Sports Events "Zest" was held from 26/ 01/2013 to 31/01/2013. The event was inaugurated by Sardar Parshan Singhji Kalsi, Ex MLC and General Secretary of the Sikh Education Society and Dr. A. M. Ittadwar, Principal, GNCP, Nagpur. During gathering, students participated in competitions like debate, quiz, singing, fashion show, treasure hunt, solo dance, group dance, skit, antakshari in large number. Different group and individual sports like chess, table tennis, throwball, badminton, cricket, voleyball, treasure hunt, carrom etc were conducted. Students were awarded with Winner, Runner and Consolation prizes. The gathering ended with enthusiastic note and students danced to the beat of live music.



### **Think Create -Tech Pharmacist**



Department of Pharmaceutics organized the event Think Create -Tech Pharmacist (Love 4 Pharmaceutics), under which Working model competition was conducted.

Working Model Competition for D.Pharm, B. Pharm and M. Pharm students was held on 09/02/2013 in the College Auditorium. Total 33 students comprising 13 teams participated in the event. Dr. A. M. Ittadwar was Chief Patron while Mr. Sulabh Khandelwal, Innova Labs, Nagpur was Jury for the competition.

Students displayed their working models with detailed explanation of mechanism of working and pharmaceutical utility of their models. Team of Mr. Amit Khandagade and Mr. Chetan Tapre of M.Pharm 2<sup>nd</sup> year won first prize while second prize was bagged by team of Ashutosh Singh, Nishant Jain and Swapnil Samrutwar from M.Pharm 2' year. Parikshit Tiwari, Rahul Pandey and Himanshu Purohit of B.Pharm 3<sup>rd</sup> year won consolation prize. The programme concluded with vote of thanks.



### **Content Updating Training Program**

Gurunanak Technical Institute conducted "Content Updating Training Program" sponsored by MSBTE, Mumbai under title 'Designing of Modules beyond Curriculum to Enhance Employability' for the faculty of D. Pharm institutes on 18/02/2013 to 22/02/2013. The function was inaugurated by Shri Gulabrao Thakre, Joint Director, Technical Education Regional Office, Nagpur and Sardar Parshan Singhji Kalsi, Ex-MLC and Gen. Secretary, Sikh Education Society, Nagpur. Mr. Ashwinkumar Pathak presided over as a coordinator and Mr. S. A. Khandalkar as a co-coordinator for the program. Total 20 delegates from various colleges of Maharashtra participated and 11 experts contributed their thoughts in the form of lecture in programme.

Mr. B. S. Sarda, CEO, MediGrace, Healthcare Advertising & Training, Nagpur, Dr. K. Deoghare, Institute of DMLT, Nagpur and Dr. A. M. Ittadwar were dignitaries in valedictory function.

### **Educational Tour**

### KANYAKUMARI-KERALA

An educational tour for B. Pharm students was organized between 18<sup>th</sup> to 27<sup>th</sup> December 2012 to Kanyakumari - Kerala. 10 staff members with 52 students visited Kanyakumari, Tamilnadu and various natural and historical sites in Kerala. The places visited includes Padmanabham temple and Kovalam beach at Thiruvanantapuram, Backwaters at Aleppy (Aalpuzza), Echo point, rose garden, drug garden and waterfall at Munnar, and Ernakulum.



### RAMTEK-NAGARDHAN

One day pic-nic for B. Pharm II and III year students was organized to various places nearby Ramtek in Nagpur district, on 28<sup>th</sup> Dec. 2012. The places visited were 7<sup>th</sup> century Nagardhan Fort of Vakataka's, situated 7 km away from Ramtek, Gad-Mandir of lord Rama at Ramtek, Raj-Kamal Resort at Khindasi Lake and Ram-dham Park at Mansar. Four staff members with 58 students enjoyed the pic-nic.



### ALIBAUG-JANJIRA

A personality development tour to various places in Konkan region was organized for M. Pharm students. Places visited were Gate way of India in Mumbai and Alibaug fort, Nagaon beach, Kashid beach, Janjira fort, Kihim beach, Sasawane beach at Raigarh district. Around 23 students with 6 staff members were part of this tour and students did rock climbing, sea surfing in the fort and beaches of Nagaon and Khashid.



### RESEARCH & DEVELOPMENT ACTIVITIES

#### Students

• All M. Pharm-I (Pharmaceutics) students attended One Day Workshop on Research Methodology, held at Dadasaheb Balpande College of Pharmacy, Besa, Nagpur on 16/02/2013.

#### Faculty



• Sameer Asole, Atul Padole, Mitali Bodhankar. Emerging Trends in Bilayer Tablet Technology: Review, Int. J. Pharm. Sci. Rev. Res., 20(1), May – Jun 2013; 07, 34-39.

### Presentation

- Mr. S. R. Yende, Mr. V. B. Pande and Mrs. M. K. Bhurchandi presented article entitled 'Antidepressant like effect of ethanolic and chloroform extract of *Sargassum ilicifolium*, A brown algae in mice' in 45<sup>th</sup> Annual Conference of Indian Pharmacological Society -IPSCON 2012, held at Vanamati, Nagpur on 06/01/2013.
- Mrs. P. S. Adhaoo presented paper on 'Neuroprotective effect of suramin against aluminium Chloride induced cognitive dysfunction in rats' in 45<sup>th</sup> Annual Conference of Indian Pharmacological Society -IPSCON 2012, held at Vanamati, Nagpur on 05/01/2013- 07/01/2013.

### **Lecture Delivered**

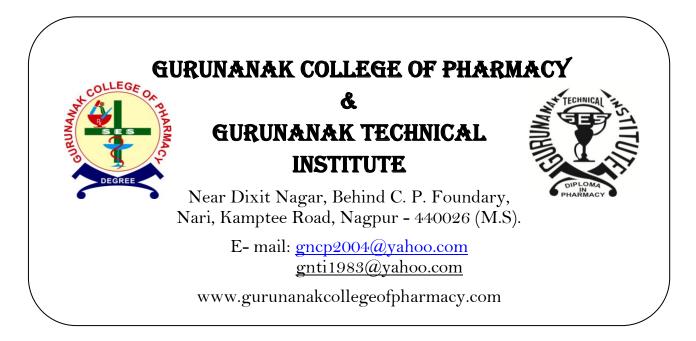
- Dr. N. P. Sapkal and Dr. V. A. Kilor participated in 5th International Conference on Drug Discovery & Therapy held at Dubai as speaker on 18/02/2013 to 21/02/2013.
- Dr. V.V. Kale delivered lecture in One Day Workshop on Research Methodology, held at Dadasaheb Balpande College of Pharmacy, Besa, Nagpur on 16/02/2013.
- Dr. V. V. Kale delivered lecture in MSBTE sponsored Content Updating Program on Designing of Modules Beyond Curriculum to Enhance Employability on topic 'Content Updating of D. Pharm Syllabus' held at GNTI, Nagpur on 21/02/2013.
- Mrs. M. M. Bodhankar, Mr. D. P. Dharkar and Ms. S. S. Yadav delivered lecture in MSBTE sponsored Content Updating Program on Designing of Modules Beyond Curriculum to Enhance Employability held at GNTI, Nagpur from 18/02/2013 to 22/02/2013.

### QIP/ SDP attended

- Mr. G. A. Gurunani and Mr. K. B. Bhelkar attended Quality Improvement Program on Research Methodology held at S.G.G.S. Institute of Engineering and Technology, Nanded from 11/03/2013 to 15/03/2013.
- Ms. S. S. Yadav attended AICTE sponsored QIP on Traditional Knowledge and Newer Approaches in Herbal Formulations organized by KLE's College of Pharmacy Belgaum, Karnataka from 25/03/2013 to 30/03/2013.
- Mr. G. A. Gurunani, Mr. K. B. Bhelkar and Mr. A. H. Deshpande attended Quality Improvement Program on Total Quality Management held at G. H. Raisoni College of Engineering, Nagpur from 22/04/2013 to 26/04/2013.
- Mr. G. A. Gurunani and Mr. K. B. Bhelkar attended Faculty Development Program on Drug Delivery System: Preformulation to Industrial Development, held at Bansal College of Pharmacy, Bhopal from 03/06/2013 to 15/06/2013.

### Seminar/Conference/Workshop/ attended

- Mr. S. R. Yende participated in one day pre-conference workshop on Techniques in Surgical and Behavioral Pharmacology at 45<sup>th</sup> Annual Conference of Indian Pharmacological Society IPSCON 2012, organized by SKB college of Pharmacy, Nagpur on 04/01/2013.
- Mr. S. R. Yende, Mr. V. B. Pande, Mrs. M. K. Bhurchandi and Mrs. S. R. Walde attended 45<sup>th</sup> Annual Conference of Indian Pharmacological Society -IPSCON 2012, held at Vanamati, Nagpur from 05/01/2013 to 07/01/2013.
- Mrs. S. V. Naidu, Mrs. P.S. Adhaoo, Mr. V.S. Patil and Mr. A.M. Ubgade participated in Content Updating Training Program on "Designing of Modules Beyond the curriculum to Enhance the Employability" from 18<sup>th</sup> - 22<sup>nd</sup> Feb 2013 held at Gurunanak Technical Institute Nagpur.
- Mrs. P.S. Adhaoo attended soft skill training program organized by Govt. Polytechnic, Nagpur on 25<sup>th</sup> to 28<sup>th</sup> Feb 2013.



Designed By-Vinita Kale, Subhash Yende