The Mission

The mission is to impart Quality Pharmacy Education and integrate it with training in the pursuit of excellence to the 'would be' Pharmacy Professionals, to serve the need of Health Care System, Pharmaceutical industries and Research Development in India and abroad, while holding the health, safety and well being of our community above other consideration and also upholding the laws and standards governing the profession.

Vision

• To be at the Forefront of Pharmacy Education and Research by Adopting and Creating
• Scientific Approach
• Career Centric Orientation
• Optimistic Attitude
• Pragmatic Outlook through Knowledge Creation, its Application and Dissemination.

Values

Our students, Faculty and Staff
Teaching and Learning Process
Interdisciplinary research

Short Term Goals

• To improve the academic track record
• To raise the standard of placement
• To provide good infrastructure facilities
• To enhance the quality of teaching-learning methodology
• To inculcate/cultivate the spirit of research

Long Term Goals

• Bioavailability Study Center
• Production of essential drugs
• Facility for Nanotechnology
• Technology Transfer
• Analytical Services Center
• Green Chemistry & Drug Design Laboratory
• Pilot Mfg Plant
### GOVERNING COUNCIL

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<th>Sr. No.</th>
<th>Name</th>
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<td>1.</td>
<td>Prof. M. N. Navale</td>
<td>Founder President, STE Society, Chairman</td>
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<td>Dr. (Mrs.) Sunanda M. Navale</td>
<td>Founder Secretary, STE Society, Member</td>
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<td>3.</td>
<td>Mr. Rohit M. Navale</td>
<td>Vice-President (HR) STE Society, Member</td>
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<td>Ms. Rachana M. Navale</td>
<td>Vice-President (Admin.), STE Society, Member</td>
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<td>Shri. G. K. Shahani</td>
<td>Director (Project), STE Society, Member</td>
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<td>Dr. M. G. Bhat</td>
<td>Director (Engineering) STE Society, Member</td>
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<td>Dr. V. M. Kulkarni</td>
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<td>11.</td>
<td>Director Of Technical Education, Mumbai</td>
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<td>12.</td>
<td>Dr. K. N. Gujar, Principal</td>
<td>Secretary</td>
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**Quality Policy**

- Quest for Knowledge & Skill
- Unending Efforts to build system
- Attitude for Contribution on all fronts
- Leadership by Motivation
- Intuition for Research and Innovation
- Team work for Performance
- Yearning for Excellence and Perfection
Editorial Committee

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Ms. V. M. Shende

Magazine Designed By:
Ms. V. M. Shende
Ajinkya Parlewar

Cover Page Design:
Shirish Gawas
Pooja Gaonkar

Student Editorial Team:
Uddhav Dhotre (M. Pharm)
Ramakant Narke (M. Pharm)
DECLARATION

[FORM 1 (VIDE RULE-31)]

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I, Principal Dr. K. N. Gujar, declare that the particulars given above are true to the best of my knowledge and belief.

Sd/-
Dr. K. N. Gujar
Principal

(For Private Circulation Only)

The editorial board of SPANDAN of Sinhgad College of Pharmacy as an institute accepts no responsibility for opinions expressed and statements made by individual authors.
Hon. Prof. M. N. Navale  
Founder President,  
Sinhgad Institutes, Pune

I am delighted to know that the Sinhgad College of Pharmacy is coming out with the 11th issue of its College magazine, "Spandan – The Vital Beat" which provides a platform to our budding pharmacists to express their thoughts and opinions as well as to showcase their literary talents.

Sinhgad Institutes has always prided itself on having its focus on the holistic development of students. A literary college magazine contributes in multiple ways towards such goal of holistic development as the student has to contribute, edit and collaborate with others to make this into reality.

Pharmacy is a discipline that is ever changing. Research in biology, biochemistry and medicine is constantly creating and recreating paradigms. Pharmacy is a discipline that expects the student to be in a perennial learning mode. As I went through this year’s issue of "Spandan", I realized the level of original thought and innovation that our students have is amongst the very best.

I would like to personally thank the contributors, the full editorial team and the faculty that guided the students in coming out with this year’s issue of “Spandan”. Happy Reading!

Prof. M. N. Navale
The Sinhgad College of Pharmacy has made tremendous progress in academic as well as non-academics, with continuous skill upgradation of staff and students. The College has achieved another milestone in getting approval from National Board of Accreditation in the year 2013.

It is a matter of great pride and satisfaction for Sinhgad College of Pharmacy to bring out the 11th issue of College magazine, "Spandan – The Vital Beat."

A magazine is like a mirror which reflects the clear picture of all sorts of activities undertaken by the institution and develops writing skills among students in particular and teaching faculty in general. I hope the magazine will bring creative talents of the students of the institutes.

I am confident that this issue of College Magazine will send a positive signal to the staff, students and the persons who are interested in the educational and literary activities.

I congratulate the Editorial Board of this magazine who have played wonderful role in accomplishing the task in record time. I convey my good wishes for the successful publication of magazine.

Dr. (Mrs.) Sunanda Navale
Hon. Mr. Rohit M. Navale,
Vice-President (HR),
Sinhgad Technical Education Society,
Pune

I am ecstatic to have seen and read this year’s issue of “Spandan: The Vital Beat”, the annual magazine that comes from Sinhgad College of Pharmacy and its brilliant students.

Sinhgad Institutes has always been socially conscious and has created an atmosphere where the institution as a whole has always focused on giving back to the community. This year’s issue of “Spandan” exemplifies this with its focus on social and cultural relevance.

As I went through this year’s issue of “Spandan”, I was amazed to see the range of ideas that the students have explored, their depth of thinking and clarity of expression. The energy and creativity expressed here makes me believe that our nation can never lag behind when we have such talents.

For the past decade, “Spandan” has taken the lead in being a strong channel through which our students have expressed their original thoughts in the sphere of science, technology, literature and culture.

I wish to thank the principal, the student body and the supporting faculty for the brilliant work that they have come out with.

Mr. Rohit Navale
Hon. Ms. Rachana M. Navale,
Vice-President (Admin),
Sinhgad Technical Education Society,
Pune

Progress of any institute relies greatly on progress of its students which is related with enhancement of their knowledge and overall growth. Literary work is the best way to express the hidden talent of youth and I am glad to know that Sinhgad College of Pharmacy (SCOP) is publishing college magazine “Spandan: the Vital Beat”.

The college magazine is a mirror that reflects its activities and creative ideas of the students. It offers ample opportunity to young writers to express their thoughts as young citizens.

I hope the magazine would not only provide an appropriate platform to the students to exhibit their creative ideas and literary skills, but also highlight the activities of the college.

I wish the organizers, teachers and students of the college all success in their endeavours and best wishes for successful publication of the magazine.

Ms. Rachana Navale
Dr. K. N. Gujar
Principal
Sinhgad College of Pharmacy, Vadgaon (Bk.), Pune

Since the college is completely committed to providing Quality Education in all respects, a college magazine was started in 2003. Now the 11th issue of the College Magazine "Spandan - the Vital Beat." is being published. No doubt the students and faculty will benefit from the magazine and contribute articles to make it a great success.

The wide-spectrum of articles in different sections gives us a sense of pride that our students and teachers possess creative potential and original thinking in ample measures. Each article is entertaining, interesting and absorbing. I applaud the contributors for their stimulated thoughts and varied hues in articles contributed by them. I am hopeful that this small piece of literary work shall not only develop the taste for reading among students but also develop a sense belonging to the institution as well.

I am thankful to the editorial team who has burnt their midnight oil for timely production of this maiden edition.

The ability of students of editorial committee to take any given task as challenge to accomplish it with vigor and enthusiasm helps to make every issue more and more informative and entertaining as well. I am hopeful that 'e- Spandan' will be enjoyed by all.

Sd/-
Dr. K. N. Gujar
A College magazine is a repository of the heart and soul of the college. It reflects the life and times of the college at various periods in its history and is something that students cherish and treasure in their later years. This issue is based on two different themes. The theme for technical section is ‘A Window to New Era for Pharmacist’ and nontechnical section is based on India: From Vision of Youth.

The collection of articles, photographs and technical information was the hectic task. Alone we could do nothing but we were blessed that we had a cabinet of those colleagues and students who were always with us in every hardship. We are grateful to all of them for their contribution and would like to salute team spirit revealed by Spandan editorial committee towards completion of this tough task.

We would also like to acknowledge the efforts taken by Mr. Ramakant Narke, Mr. Ajinkya Parlerwar, Mr. Uddhav Dhotare & Shirish Gawas for their contribution in designing of Spandan. We also appreciate the ability of students to take any given task as challenge to accomplish it with vigour and enthusiasm helps to make every issue more and more informative and entertaining as well.

We are thankful to our Principal Dr. K. N. Gujar for his timely suggestions, appropriate guidance and support throughout this activity.

We will always remember the magnificent and outstanding support of our management especially, our Hon’ble founder President, Prof. M. N. Navale and Hon’ble founder secretary Dr.(Mrs.) Sunanda Navale.

We congratulate the editorial team for making “Spandan” innovative and inspiring.

Enjoy Reading!

Editorial Team, SCOP
Dear reader(s),

It really gives us a pleasure sense of editorial responsibility for the 11th issue of Spandan which also happens to be the second issue of E-Spandan. As the second order of conduct, we would like to express our sincere appreciation especially to Dr. K. N. Gujar and rest of the editorial committee for their efforts and dedication in transforming the eleventh issue of Spandan into a widely accessible version of E-Spandan which will be available on the society’s website for students and general public.

The college magazine is a forum which could aptly be used for recording events, fond memories and creative writing. With a sense of pride and satisfaction we would like to say that with the active support of the management, faculty and students, “Spandan” has come alive.

With all the efforts and contributions put in by the students, we truly hope that this magazine will be informative and resourceful.

Have a good reading!

Yours,

Student Editorial Committee
A Window to New Era for Pharmacist
The Pharmacy Profession is in its transitional state. The health care delivery pattern has been completely transformed and has acquired an altogether different image than what we have been observing traditionally. The present of pharmacy does not lie merely in dispensing of medication, but in the provision of relevant drug information and drug therapy recommendation to the people in the society.

Over a period of time, the pharmacy profession has greatly changed from being focused on managing the production and dispensing of drugs, to being primarily concerned with the safe, effective and appropriate use of medication and enhanced pharmacy services to patients. High technological advancement and information explosion have significantly raised the knowledge and quality level, due to which the pharmacists are now ready to shoulder bigger responsibilities with appreciable sense of sincerity and dedication. The role of pharmacists is now no longer a fixed and rigid one, but has been continuously changing and redefining its meaning and significance in the changing scenario, which is why the bond between a pharmacist and society is becoming stronger day-by-day and acquiring new dimensions.

Sticking to ethical rules has helped a lot to establish the pharmacy profession as a noble one among the society, and pharmacists are advocating the adherence to the pharma code of ethics more strongly and loudly in the present scenario.

Education wise-

As it has been proposed that chemist shops should have a graduate pharmacist, the existing diplomas should give pharmacists an opportunity to upgrade their knowledge and skills to the level of graduate pharmacists. This task can be undertaken by securing seats in degree courses for those who opt for regular programmes or by developing specifically designed long duration, part-time programmes. Going by the experience of several countries, pharmacy technicians or assistants will be required to assist graduate pharmacists. Therefore, the existing diploma courses should be re-oriented for pharmacy assistants with reduced duration of training. The existing institutions conducting diploma courses should be given the option of upgrading to degree courses or to conduct technician/assistant courses in a phased manner.

In order to cater to both industrial and healthcare aspects of pharmacy, graduate level courses should be separated as B Pharm—Industrial and B Pharm—Healthcare. The curriculum should be re-oriented to fulfill practice requirements in both industrial, as well as healthcare settings.

Future Scenario- With several companies slated to make investments in India, the future scenario of the pharmaceutical industry in looks pretty promising. The country’s pharmaceutical industry has tremendous potential of growth considering all the projects that are in the pipeline.
The pharmaceutical industry in India is among the most highly organized sectors. This industry plays an important role in promoting and sustaining development in the field of global medicine. Due to the presence of low cost manufacturing facilities, educated and skilled manpower and cheap labor force among others, the industry is set to scale new heights in the fields of production, development, manufacturing and research.

During the past few years, the pharmacy profession has expanded significantly in terms of professional services delivery and now has been recognized as an important profession in the multidisciplinary provision of health care. The Pharmacist is a key component of healthcare and manages the human resource to support the growth. In contrast to the situation in developed countries, pharmacists in developing countries are still underutilized and their role as health care professionals is not deemed important by either the community or other health care providers. The aim of this paper is to highlight the role of pharmacists in developing countries, particularly in India, Pakistan and Bangladesh. The paper draws on the literature related to the pharmacy profession in the country in the context of the current directions of health care. The paper highlights the current scenario and portrays the pharmacy profession in India, Bangladesh and Pakistan. It concludes that although the pharmacy profession in developing countries is continuously evolving, the health care system which yet to recognize the pharmacist's role. This lack of recognition is due to the limited interaction of pharmacists with the public. Pharmacists in developing countries are concerned about their present professional role in the health care system. The information presented in this paper may stimulate discussion and critical analysis and planning, and will be of value in further adaptation of the pharmacy education to desired educational outcomes. These are times of enormous change in healthcare and the pharmacy profession and pharmaceutical education must prepare students to enter into the practice of pharmacy.

Pharmaceutical education plays a very prominent role in attaining sustainable and equitable development of a country. The curriculum of the degree in some developed countries (B. Pharm.) usually requires 5 academic years of study. In most of the European countries successful completion of university degree leads to a one-year internship. The formal pharmacy education in India (3 year degree in BHU) dates back 1932, and since then, there has been a continuous growth in number of such institutions. The number of accredited institutions like the National Institute of Pharmacy Education Research (NIPER) is very few. Facultystrength and its quality is a problem. Management is not proactive in providing facilities and necessary educational environment. National pay scales are not fully implemented and hence good academia is missing. There are a few centers of excellence where students get all the facilities and are well placed after their graduation. In the next decade, pharmaceutical industries will scout for pharmacy graduates who are inclined to research. Therefore, pharmacy colleges must appoint the right faculty.

The present counseling system proves to be the first and foremost reason for the degradation of the profession in the country. The system creates a situation in which anyone who has money can get a seat in B. Pharm without the basic qualifications. The system has to be scrutinized and some regulations have to be made which assures that the meritorious students are entering into the profession. A centralized allotment procedure (CAP) is to be introduced to regulate the entry of students into the pharmacy stream, which is purely based on the merit all throughout the country proposing the idea of introducing specializations at graduation level in pharmacy. Like the other technology courses like B.E/B. Tech, we should also have a provision for specialization from graduation level in all the conventional branches of pharmacy.
India has a growing pharmaceutical industry of its own. It is likely to become a competitor of global pharma in some key areas, and a potential partner in others. India has considerable manufacturing expertise; Indian companies are among the world leaders in the production of generics and vaccines. As both of these areas become more important, Indian producers are likely to take a large role on the world stage – and potentially partner with global pharma companies to market their wares outside of India. Indian companies have also started entering into the realm of R&D; some of the leading local producers have now started conducting original research.

India has the world's second biggest pool of English speakers and a strong system of higher education, so it should be well-positioned to serve as a source for research talent. A new patent regime provides better protection of intellectual property rights, although some issues remain. Further, healthcare has become one of the key priorities of the Indian Government and it has launched new policies and programmes to boost local access and affordability to quality healthcare. Global players in the pharma industry cannot afford to ignore India. The country, many predict, will be the most populous in the world by 2050. India will make its mark as a growing market, potential competitor or partner in manufacturing R&D, as a location for clinical trials.

Dr. B. Suresh in his guest lecture on 'Pharmacy Education: Present status and future direction' clearly elucidated the loopholes in the present pharma education with the statistical data showing the number of pharmacy colleges in India. He caught the attention of everyone in the hall by putting up a question, just as in reality game show – KBC. Many people answered as 'D' but very few answered 'Pharmacist in pharmacy' which is a fact and was the right answer. Source: Pharmainfo.net
The beginning of pharmaceutical education in India was initiated at the Banaras Hindu University (BHU) in 1932 by Professor M. L. Schroff. From there it has been a long journey of almost 80 years for this profession in this country. The enactment of the Pharmacy Act 1948 established the statutory regulation of pharmacy institutions in India. The Pharmacy Council of India (PCI) was established in 1949 under “Ministry of Health” and the first education regulations (ER) framed in 1953, which were subsequently amended in 1972, 1981, and 1991. On the other hand, the pharmacy education has never been part of paramedical team and hence, its development has been quite unique and quite different from rest of the world. Pharmacy Council of India and Pharmacy Act were created to establish minimum qualification required to be a pharmacist. The role of pharmacist in the society was never been given its due place and did not grow due to less paying job compared to job in industry. This would have been the reason for transfer of pharmacy education from PCI to All India Council of Technical Education (AICTE) under the “Ministry of Human Resource Development”. Currently, PCI and AICTE regulate pharmacy profession and education respectively in India. Both of these regulatory bodies have been doing a regulatory function without bothering to create a permanent mechanism of updating curriculum along with development in the field. In short, it can be said that evolution of pharmacy education has been quite confusing and developed like a vagabond. Hence, evolution of pharmacy education has been primarily due to evolution of pharmaceutical industries and has lot of impact under curriculum of “Bachelor and Master in Similarly, medical education in India grew with less focus on research and development and hence, India produced medical graduates more with clinical sense acquired through experience and less of a doctors with analytical bent of mind. Due to tight junctions at the entry point, integration of the thoughts of medical sciences, pharmaceutical sciences, nursing, engineering sciences and basic sciences have never taken place. Primarily, this resulted in isolated development of medical education without integration with other sciences including pharmaceutical. It is also true in case of pharmacy education. It may also one of the reason of pharmacy education not to be a part of healthcare system.

Today, the global institutes are moving towards excellence in research and capability building in order to better meet the requirements of 21st century. This forces us to evaluate status of pharmacy education in India. There is a rapid transition in pharmacy profession worldwide and in the era of globalization, we cannot be silent spectators. If we have to compete with the rest of the world and become guiding torch for rest of the world, we will have to become proactive. It means, we have to define the goals of pharmacy education for present and future and re-frame our curriculum according to defined goals to meet the global challenges. In the past decade, the technical education in India has spread its roots at an amazing rate. On the other hand, there is sharp decrease in interest and overall admissions to undergraduate programme (B. Pharmacy) in pharmacy
during the last three academic years. This decline may be attributed due to changed trends in pharmaceutical industry which has become primarily research and marketing oriented from production oriented. Role of knowledge in giving increasing employability of the students has become need of the

Pharmacy is related to health sciences. It is the profession responsible for the preparation, dispensing and appropriate use of medication and which provides services to achieve optimal therapeutic outcomes. A Pharmacist job is to prepare, mix, compound or dispense drugs and medicines, ointments, powder, pills, tablets and injections on the prescription of a medical practitioner, dentist or veterinarian. In detail, they are concerned with production of pharmaceutical products, development of the methods or processes of production and quality control. Those in research concern themselves with synthesis of new drugs (what is commonly referred to as molecules), new processes, clinical testing of the effects of such drugs on animals and humans, and obtaining the required License from the drug control authorities. A pharmacist is required to explain the mode and precautions regarding the use of medicines dispensed in a hospital pharmacy, prepare special formulations normally not available in the market, assist the physician in rendering necessary information about various drugs, their contra-indications, incompatibility etc.

PHARMACY PROFESSION IN INDIA

Currently there are over a million pharmacists in India with around 55% of them in community, 20% in hospital, 10 % in industry & regulatory. And 2 % in academia in India, formal pharmacy education leading to a degree began in 1937, with the introduction of a 3 year industry – oriented Bachelor of Pharmacy course. To meet the varying needs of the profession at different levels the following pharmacy programs are offered in India today: Diploma in Pharmacy (D.Pharm.), Bachelor of Pharmacy (B.Pharm.), Master of Pharmacy (M.Pharm.), practice- based Doctor of Pharmacy (Pharm.D.), and Doctor of Philosophy in Pharmacy (Ph.D.). To practice as a pharmacist in India, one needs at least a diploma in pharmacy, which is awarded after 2 years and 3 months of pharmacy studies & practical training. These diploma-trained pharmacists are currently the mainstay of pharmacy practice in India. Every year nearly 20000 D. Pharm, 30,000 B. Pharm, 6000 M.Pharm and 700 Pharm.D. students graduate in the Country. Pharmacy Council of India (PCI) is the statutory body established in 1949, for regulating pharmacy education and practice of pharmacy profession in India. PCI is actively working towards strengthening and upgrading the curriculum to produce competent workforce that is able to meet the growing demands of the industry & community. In 2003, the Pharma Vision 2020 Charter was released by the then President of India, Dr. A.P.J. Abdul Kalam, at the 55th Indian Pharmaceutical Congress at Chennai. The Vision 2020 is focused on promoting the highest professional ethical standards of pharmacy, focusing the image of pharmacists and competent healthcare professionals, sensitizing the community, government and others on vital professional issues and supporting pharmaceutical education and sciences in all aspects. Indian Pharmaceutical Association once again, with the support of the leaders of the pharmacy profession presented the road map to Pharma Vision 2020 at the 58th Indian Pharmaceutical Congress held in December 2006 at Mumbai. The themes of the subsequent Congresses in the country have been centered on Pharma Vision 2020.

PHARMACEUTICAL INDUSTRY IN INDIA

It is exciting to be part of the Pharmaceutical industry in India today, In 2007, the turnover of the Indian Pharmaceutical Industry was USD 8.4 bn, with additional USD 5.8 bn generated from exports. If we take a look at the top 10 pharmaceutical companies in
India, more than 50% of their annual turnover comes from exports. India exports to over 100 countries & also boasts of having the largest USFDA approved facilities outside USA. The number is rising every year as Indian companies keep on adding facilities to cater to the increasing demand. India is the 3rd largest manufacturer of pharmaceuticals in the global market in terms of volume of sales. In terms of value, India is 14th globally which clearly shows that the prices of the medicines in India are lowest in the world. India has slowly but surely emerged as the global outsourcing hub-be it for manufacturing or R&D, Clinical research or basic drug discovery. The reasons are not hard to fathom. India has a huge pool of qualified & well trained professionals, While maintaining stringent quality standards, it is possible to establish GMP-compliant manufacturing units at around 30% cheaper rates as compared to any of the regulated markets. All these factors make outsourcing various pharmaceutical operations to India a very lucrative option for the big pharma that are trying hard to manage their profit margins. Indian pharmaceutical companies have also been making increasing forays into the global generics market, which is continuously increasing because of many of the blockbuster drugs going off-patent, Identification of molecules going off-patent, well thought out time lines, speed of doing development work and good regulatory understanding are some of the key factors that define success in the generic industry; attributes that are the forte of Indian companies.

**TOTAL QUALITY MANAGEMENT IN PHARMACY EDUCATION**

Applying principles of TQM to pharmacy education in India leads to the development of pharmacy education in India. The concept of Total Quality Management (TQM) although developed by an American was successfully implemented by Japan in their recovery from World War II. The concept of TQM is applicable to academics. Many educators believe that the concept of TQM provides guiding principles for needed educational reform. Education is a fast moving commodity in the market and is mainly business oriented which means it should give some profit to the undertaker. TQM is a philosophy for perfection and continuous improvement in services offered to someone or one's own performance. The TQM principles which are most salient to educational reform are as follows: Synergistic relationship: According to this principle, an organization must focus, first and foremost, on its “suppliers” and “customers”. In other words, teamwork and collaboration are essential. The concept of synergy suggests that performance and production is enhanced by pooling the talent and experience of individuals. In a classroom, teacher-student teams are the equivalent of industry’s front-line workers. The product of their successful work together is the development of the student’s capabilities, interests, and character.

Continuous improvement and self evaluation: TQM emphasizes self-evaluation as part of a continuous improvement process. In addition, this principle also laminates to the focusing on students’ strengths, individual learning styles, and different types of intelligences. A system of ongoing process: The recognition of the organization as a system and the work done within the organization must be seen as an ongoing process. Quality speaks to working on the system, which must be examined to identify and eliminate the flawed processes that allow its participants to fail.

Leadership: The upper level provides proposes basic way of functioning, provides quality staff, while the lower level are directly linked to the students as lecturers who perform the most important functions of the whole system. The school teachers must establish the context in which students can best achieve their potential.

**REGULATION BODIES OF PHARMACY EDUCATION**

There is no doubt that currently there is enormous gap existing between education and practice of pharmacy. Most of the academic institutions
providing education in pharmacy are away from practice environment. The overall basis of pharmacy education is still extra biological synthesis, physicochemical studies, analysis, and manufacturing aspects of drug. It is a common feeling that the medical practitioner is better placed for pharmacists’ job than the pharmacists themselves. The dispensing services are poor. The syllabus and duration of the two-year diploma course in pharmacy education in India is completely outdated and irrelevant in the present industry context. It is a heterogeneous mixture of clinical and industrial subjects. Since clinical subjects are there PCI comes into the picture and AICTE came in because of industrial orientation of pharmacy syllabus. Pharmacy as a nascent science developed like this in the last century. During 1940s and 50s, hospitals and industries were established in large numbers in India.

Consequently, pharmacists and pharmaceutical chemists were required in huge numbers. Hence pharmacy education was developed in such away to satisfy the requirement of industry and hospital. Short-term compounders and or D. Pharm. course to satisfy the needs of hospital and medical shops and B. Pharm. course for the industry were started. This is proved by the fact that in the last few decades D. Pharm. holders are not employed by the industry and B. Pharm. holders are not in many numbers in hospitals or medical shops. In the West, pharmacy education is patient-oriented and is responsible for Healthcare Management, while in India pharmacy education is industry-oriented. Nearly 55 per cent of the jobs are available in the industry sector while 30 per cent in education.
Post independence, the pharmacy profession and education have undergone a sea change as a provider of healthcare services in India. In 1932, Prof. M. L. Scroff, upon invitation by Pandit Madan Mohan Malaviyaji, the vice Chancellor of the Banaras Hindu University, started a 3-year regular bachelor of pharmacy course. Presently, the education in India consists of a variety of courses, namely Diploma in pharmacy, Bachelor of pharmacy, Master of pharmacy, Master of science in pharmacy, Doctor of pharmacy, and Doctor of philosophy in pharmacy. Recently, newer specialized subjects such as pharmacy practice quality assurance, industrial pharmacy, pharmaceutical biotechnology, clinical pharmacy, drug regulatory affairs, bioinformatics etc. have been introduced in the postgraduation level. Although there is a growing strength of pharmacy workforce in our country.

The demand of pharmacists is further growing with the growth of the industry within the country and outsourcing from abroad. Among the biggest factors fuelling the growth are contract research for pharma R&D and contract manufacturing for global pharma companies. The retail sector is witnessing growth due to entry of major retail chains. The growth of national healthcare spending to more than 12 per cent per annum will impact the availability, accessibility and the demand for drugs, which in turn will have a direct impact on the requirement of pharmacist. This will also have an impact on the requirement of hospital pharmacists and those getting into the insurance sector. The shortfall in supply of pharmacists in developed countries such as the US, Canada, Europe etc. and lucrative opportunities for employment will give rise to migration of Indian pharmacist to these countries. This will get further boost with pharmacy institutions getting accredited by foreign bodies.

Besides the demand and supply issues, there are several other areas affecting the pharmacy profession in the country. Pharmacists in India do not have any laid down norms on competencies and quality of service. Unlike many developed countries there is no system of evaluating a pharmacist's competency. Hence, the level of competencies and the quality of services provided are likely to vary among Indian pharmacists. Pharmacists have the potential to fill the gap created due shortage/unavailability of doctors and nursing personnel in health facilities. It is obvious that our current health care system cannot be sustained. Change is needed. That change will focus on increasing access and quality, while containing or reducing costs. That is exactly what pharmacists do. Numerous studies and demonstration projects have shown that when pharmacists get involved, costs go down while quality and patient satisfaction go up. These are the very things needed to improve our current health care system. The fact that pharmacists are the most accessible and underutilized health care professionals is becoming well recognized. New programs to utilize the pharmacist are being proposed.
Your pharmacy school curriculum is preparing you for these new roles. You are comfortable working as part of an interdisciplinary team. You will graduate with a strong knowledge base on the appropriate use of drugs. Since drugs, when used correctly, are one of the most cost-effective treatment modalities, you are well positioned to make immediate contributions. Patients need to focus more attention on prevention and wellness. The health care system is recognizing this and is paying for preventive services. Immunizations are one area of preventive services where pharmacists will be playing a much larger role in the future—and you will be, too. The community pharmacy is becoming positioned as the neighborhood health center, in part because of immunization administration in pharmacies. Your role will become more consultative as the patient’s coach as well as the health educator for the community. Most of us went into pharmacy to give back to our communities, and now you will be able to do that in new ways. Chronic disease is growing as people live longer. Pharmacists have demonstrated through the Asheville Project and the Ten City Challenge that we have an important role to play in helping to manage these conditions. Again, you are well prepared to undertake this role.

It is for all of these reasons that I see exciting opportunities for our profession ahead. Of course, these new opportunities are still limited, so not everyone will find an ideal job immediately. That means you will need to find a way to differentiate yourself. Some of you will do this by pursuing a residency. Others will use volunteer activity to gain new skills or improve your experiences. It really is who you know that is key to creating opportunities for yourself. Make yourself known to those who are doing the job you would like to have. Find out what they did to achieve their position. Ask them to mentor you. Yes, I believe your future is bright, but you will have to create that future. You must realize that graduation does not mean that a great job is waiting for you. Instead, graduation means that you can now start to create that ideal job. Look at any position in terms of “How can I use this experience to help me advance in my career?” Thinking of pharmacy as a career—and not just a job—is the place to begin. Careers evolve as we grow personally and professionally. Sometimes we have to take risks to achieve what we want. We learn from our successes but we really learn more from our failures, so don’t be afraid to fail. For those willing to work hard, continue to grow, and take risks, the future is bright.
The Indian pharmaceutical industry's emergence on the global landscape as a strong generics player was due, in no small measure, to the Indian Patents Act, 1970, which allowed only process patents in pharmaceutical products. This was aimed at keeping the cost of medicines at affordable levels by enabling domestic pharma players to build technical expertise in reverse engineering of existing medicines by modifying the manufacturing process and thus, become efficient producers of generic drugs.

Although India shifted to the product patent regime in 2005, the capabilities developed during the past two decades became a competitive advantage for the Indian pharma industry in the 1990s, when the rising healthcare costs in many developed countries forced them to seek the cheaper generic drug option. Thus, the Indian pharma industry was able to exploit the enormous generic opportunity that was spawned.

The share of Indian pharma companies in the total pie of approvals for generic drugs (called abbreviated new drug applications (ANDA) approvals in the U.S.) has risen steadily. In 2011 itself, more than one third of the ANDA approvals were by Indian firms. As a consequence, formulation exports from India, essentially generic drugs, have grown at 21 per cent compounded annual growth rate (CAGR) between 2005-06 and 2010-11. With about $150 billion worth of drugs set to lose patent exclusivity between 2010 and 2015. Crisil Research expects the growth momentum in exports to continue over the next five years, with exports growing at 14-16 percent CAGR.

In the near-term, the generic opportunity will continue to lure more companies. And with competition intensifying, generic drugs will see greater price erosion.

Along with higher competition, the global generic market is set to face another hurdle in the longer term. Already R&D productivity of large global pharmaceutical players (innovators) has slowed considerably over the past few years. R&D productivity, a function of cost of new drug development and returns from those new drugs, is of critical importance as global players invest heavily in R&D (about 20 per cent of revenues). First, the average cost of developing a new drug has more than doubled in the past five years to $1.5 billion. Second, R&D activities by global players have resulted in only a handful of new molecules. Further, returns from these few novel drugs have not reached the scale seen in the previous decade. Unlike highly successful launches in the past, such as Lipitor, most patented drugs launched over the five years have not been able to garner sales in excess of $1 billion.

The slowing down of new drug launches will mean that the generic opportunity set to open up in the next decade (post 2020) is likely to be significantly lower. For sustaining growth, Indian drug-makers will, therefore, be forced to look at newer avenues such as entering niche segments, building relationships with global pharma for joint research and development and widening distribution networks through marketing alliances. Other potential thrust areas include biopharmaceuticals, contract research and manufacturing, and new drug research.
The Indian bio-pharmaceutical industry is in its emerging stage and is sized at about $1.4 billion as of 2010-11. However, Indian bio-pharmaceutical players largely market vaccines and are yet to make inroads into U.S. and Europe. With the looming patent expiry of many bio-pharmaceutical products globally, Indian firms will look to build capabilities to capitalise on the opportunity that will arise.

The low cost of manufacturing renders India as an attractive destination for contract research, and the availability of a large patient pool makes it appealing for clinical trials, which contributes the most, in terms of revenue, to the contract research segment. An increased presence in contract research will also help them build expertise to move up the value chain and engage in new drug development.

Indian industry's R&D capabilities currently lie in reverse engineering drugs and in process chemistry. With limited experience and high costs associated with bringing a drug to the market, Indian players have traditionally shied away from drug discovery, or in a few cases, out-licensed molecules to multinational companies at early stage of development. At present, only a handful of Indian companies (leading the pack are: Piramal Life Sciences, Glenmark and Sun Pharma) are engaged in new drug research; consequently, there are only 70-80 molecules in the pipeline from Indian players, of which more than two-thirds are still in early clinical phases. Amid slower growth in the generics space, large Indian players will look to enhance their focus in this area. The high-risk high-return field of new drug research holds tremendous potential for Indian players.
The Pharmaceutical industry in India is the world's third-largest in terms of volume. According to Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, the total turnover of India’s pharmaceuticals industry between 2008 and September 2009 was US$21.04 billion. While the domestic market was worth of US$12.26 billion. According to Brand India Equity Foundation, the Indian pharmaceutical market is likely to grow at a compound annual growth rate (CAGR) of 14-17 per cent in between 2012-16. India is now among the top five pharmaceutical emerging markets of the world. Exports of pharmaceuticals products from India increased from US$6.23 billion in 2006-07 to US$8.7 billion in 2008-09 a combined annual growth rate of 21.25%. According to PricewaterhouseCoopers (PWC) in 2010, India joined among the league of top 10 global pharmaceuticals markets in terms of sales by 2020 with value reaching US$50 billion.

The government started to encourage the growth of drug manufacturing by Indian companies in the early 1960s, and with the Patents Act in 1970. However, economic liberalization in 90s by the former Prime Minister P.V. Narasimha Rao and the then Finance Minister, Dr. Manmohan Singh enabled the industry to become what it is today. This patent act removed composition patents from food and drugs and though it kept process patents, these were shortened to a period of five to seven years.

The lack of patent protection made the Indian market undesirable to the multinational companies that had dominated the market, and while they streamed out. Indian companies carved a niche in both the Indian and world markets with their expertise in reverse-engineering new processes for manufacturing drugs at low costs. Although some of the larger companies have taken baby steps towards drug innovation, the industry as a whole has been following this business model until the present.

India's biopharmaceutical industry clocked a 17 percent growth with revenues of Rs. 137 billion ($3 billion) in the 2009–10 financial year over the previous fiscal. Bio-pharma was the biggest contributor generating 60 percent of the industry’s growth at Rs. 88.29 billion, followed by bio-services at Rs. 26.39 billion and bio-agri at Rs. 19.36 billion.

In 2013, there were 4,655 pharmaceutical manufacturing plants in all of India, employing over 345 thousand workers.

**Pharmaceutical Industry Today**

The number of purely Indian pharma companies is fairly low. Indian pharma industry is mainly operated as well as controlled by dominant foreign companies having subsidiaries in India due to availability of cheap labor in India at lowest cost. In 2002, over 20,000 registered drug manufacturers in India sold $9 billion worth of formulations and bulk drugs. 85% of these formulations were sold in India while over 60% of the bulk drugs were exported, mostly to the United States and Russia.
Most of the players in the market are small-to-medium enterprises; 250 of the largest companies control 70% of the Indian market. Thanks to the 1970 Patent Act, multinationals represent only 35% of the market down from 70% thirty years ago. Most pharma companies operating in India, even the multinationals, employ Indians almost exclusively from the lowest ranks to high level management. Homegrown pharmaceuticals, like many other businesses in India, are often a mix of public and private enterprise.

In terms of the global market, India currently holds a modest 1–2% share, but it has been growing at approximately 10% per year. India gained its foothold on the global scene with its innovatively engineered generic drugs and active pharmaceutical ingredients (API), and it is now seeking to become a major player in outsourced clinical research as well as contract manufacturing and research. There are 74 US FDA-approved manufacturing facilities in India, more than in any other country outside the U.S, and in 2005 almost 20% of all Abbreviated New Drug Applications (ANDA) to the FDA are expected to be filed by Indian companies. Growth in other fields notwithstanding, generics is still a large part of the picture. London research company Global Insight estimates that India’s share of the global generics market will have risen from 4% to 33% by 2007. The Indian pharmaceutical industry has become the third largest producer in the world.

Patent

As it expands its core business, the industry is being forced to adapt its business model to recent changes in the operating environment. The first and most significant change was the 1 January 2005 enactment of an amendment to India’s patent law that reinstated product patents for the first time since 1972. The legislation took effect on the deadline set by the WTO’s Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement, which mandated patent protection on both products and processes for a period of 20 years.

Under this new law, India will be forced to recognize not only new patents but also any patents filed after 1 January 1995. Indian companies achieved their status in the domestic market by breaking these product patents, and it is estimated that within the next few years, they will lose $650 million of the local generics market to patent-holders. In the domestic market, this new patent legislation has resulted in fairly clear segmentation. The multinationals narrowed their focus onto high-end patients who make up only 12% of the market, taking advantage of their newly bestowed patent protection. Meanwhile, Indian firms have chosen to take their existing product portfolios and target semi-urban and rural populations.

Product development

Indian companies are also starting to adapt their product development processes to the new environment. For years, firms have made their ways into the global market by researching generic competitors to patented drugs and following up with litigation to challenge the patent. This approach remains untouched by the new patent regime and looks to increase in the future. However, those that can afford it have set their sights on an even higher goal: new molecule discovery. Although the initial investment is huge, companies are lured by the promise of hefty profit margins and have a legitimate competitor in the global industry. Local firms have slowly been investing more money into their R&D programs or have formed alliances to tap into these opportunities.

Small and medium enterprises

As promising as the future is for a whole, the outlook for small and medium enterprises (SME) is not as bright. The excise structure changed so that companies now have to pay a 16% tax on the maximum retail price (MRP) of their products, as opposed to on the ex-factory price. Consequently larger companies are cutting back on outsourcing and what business is left is shifting to companies with facilities in the four tax-free states – Himachal Pradesh, Jammu & Kashmir, Uttarakhand and Jharkhand. Consequently a large number of pharmaceutical
manufacturers shifted their plant to these states, as it became almost impossible to continue operating in non-tax free zones.

But in a matter of a couple of years the excise duty was revised on two occasions, first it was reduced to 8% and then to 4%. As a result the benefits of shifting to a tax free zone were negated. This resulted in, factories in the tax free zones, to start up third party manufacturing. Under this these factories produced goods under the brand names of other parties on job work basis.

As SMEs wrestled with the tax structure, they were also scrambling to meet the 1 July deadline for compliance with the revised Schedule M Good Manufacturing Practices (GMP). While this should be beneficial to consumers and the industry at large, SMEs have been finding it difficult to find the funds to upgrade their manufacturing plants, resulting in the closure of many facilities. Others invested the money to bring their facilities to compliance, but these operations were located in non-tax free states, making it difficult to compete in the wake of the new excise tax.

Challenges

Even after the increased investment, market leaders such as Ranbaxy and Dr. Reddy's Laboratories spent only 5–10% of their revenues on R&D, lagging behind Western pharmaceuticals like Pfizer, whose research budget last year was greater than the combined revenues of the entire Indian pharmaceutical industry. This disparity is too great to be explained by cost differentials, and it comes when advances in genomics have made research equipment more expensive than ever. The drug discovery process is further hindered by a dearth of qualified molecular biologists. Due to disconnect between curriculum and industry, pharma in India also lack the academic collaboration that is crucial to drug development in the West and so far.

Relationship between pharmaceuticals and biotechnology unlike in other countries, the difference between biotechnology and pharmaceuticals remains fairly defined in India. Bio-tech there still plays the role of pharma's little sister, but many outsiders have high expectations for the future. India accounted for 2% of the $41 billion global biotech market and in 2003 was ranked 3rd in the Asia-Pacific region and 11th in the world in number of biotech. In 2004-5, the Indian biotech industry saw its revenues grow 37% to $1.1 billion. The Indian biotech market is dominated by bio pharmaceuticals; 75% of 2004-5 revenues came from bio-pharmaceuticals, which saw 30% growth last year. Of the revenues from bio-pharmaceuticals, vaccines led the way, comprising 47% of sales. Biologics and large-molecule drugs tend to be more expensive than small-molecule drugs, and India hopes to sweep the market in bio-generics and contract manufacturing as drugs go off patent and Indian companies upgrade their manufacturing capabilities. Most companies in the biotech sector are extremely small, with only two firms breaking 100 million dollars in revenues. At last count there were 265 firms registered in India, over 75% of which were incorporated in the last five years. The newness of the companies explains the industry's high consolidation in both physical and financial terms. Almost 50% of all biotech are in or around Bangalore, and the top ten companies capture 47% of the market. The top five companies were homegrown; Indian firms account for 62% of the bio-pharma sector and 52% of the industry as a whole.[4,46] The Association of Biotechnology-Led Enterprises (ABLE) is aiming to grow the industry to $5 billion in revenues generated by 1 million employees by 2009, and data from the Confederation of Indian Industry (CII) seem to suggest that it is possible. is poised to grow into an industry of $20 billion in 2015 from the current turnover of $12 billion.

Comparison with the US

The Indian biotech sector parallels that of the US in many ways. Both are filled with small start-ups while the majority of the market is controlled by a few powerful companies. Both are dependent upon government grants and venture capitalists for funding because neither will be commercially viable for years.
Pharmaceutical companies in both countries have recognized the potential effect that biotechnology could have on their pipelines and have responded by either investing in existing start-ups or venturing into the field themselves. In both India and the US, as well as in much of the globe, biotech is seen as a hot field with a lot of growth potential.

**Relationship with IT**

Many analysts have observed that the hype around the biotech sector mirrors that of the IT sector. Biotech colleges have been popping up around the country eager to service the pools of students that want to take advantage of a growing industry. The International Finance Corporation, the private investment arm of the World Bank, called India the “centerpiece of IFC’s global biotech strategy.” Of the $110 million invested in 14 biotech projects investment globally, the IFC has given $43 million to 4 projects in India. According to Dr. Manju Sharma, former director of the Department of Biotechnology, the biotech industry could become the “single largest sector for employment of skilled human resource in the years to come”. British Prime Minister Tony Blair was similarly impressed, citing the success of India’s biotech industry as the reason for his own country’s own biotech opportunities. Malaysia is also looking to India as an example for growing its own biotech industry.

**Support Indian Government**

The Indian government has been very supportive. It established the Department of Biotechnology in 1986 under the Ministry of Science and Technology. Since then, there have been a number of dispensations offered by both the central government and various states to encourage the growth of the industry. India’s science minister launched a program that provides tax incentives and grants for biotech start-ups and firms seeking to expand and establishes the Biotechnology Parks Society of India to support ten biotech parks by 2010. Previously limited to rodents, animal testing was expanded to include large animals as part of the minister’s initiative. States have started to vie with one another for biotech business, and they are offering such goodies as exemption from VAT and other fees, financial assistance with patents and subsidies on everything ranging from investment to land to utilities.

**Foreign Investment**

The government has also taken steps to encourage foreign investment in its biotech sector. An initiative passed earlier this year allowed 100% foreign direct investment without compulsory licensing from the government. In April, a delegation headed by the Mr. Kapil Sibal, the minister of science and technology and ocean development, visited five cities in the US to encourage investment in India, with special emphasis on biotech. Just two months later, Mr. Sibal returned to the US to unveil India’s biotech growth strategy at the BIO2005 conference in Philadelphia.

**Challenges**

The biotech sector faces some major challenges in its quest for growth. Chief among them is a lack of funding, particularly for firms that are just starting out. The most likely sources of funds are government grants and venture capital, which is a relatively young industry in India. Government grants are difficult to secure, and due to the expensive and uncertain nature of biotech research, venture capitalists are reluctant to invest in firms that have not yet developed a commercially viable product. The government has addressed the problem of educated but unqualified candidates in its Draft National Biotech Development Strategy. This plan included a proposal to create a National Task Force that will work with the biotech industry to revise the curriculum for undergraduate and graduate study in life sciences and biotechnology. The government’s strategy also stated intentions to increase the number of PhD Fellowships awarded by the Department of Biotechnology to 200 per year. These human resources will be further leveraged with a "Bio-Edu-Grid" that will knit together the resources of the academic and scientific industrial communities, much as they are in the US.
Responsibilities of Pharmacy Institutions in Development of Profession

Ms. Dhwani Hariharan
S.Y. B. Pharm

The profession of a pharmacist shoulders great responsibilities. It ranges from drug discovery to drug delivery. Pharmacists are important contributors to health care and strive regularly for the betterment of the society. The education provided by pharmacy institutions is what lays the foundation of an efficient and innovative pharmacist.

The professional development starts from the coursework itself. The pharmacists in today’s world are masters of not only the core subjects but also the basic sciences. The syllabus and the professional teaching has given a practically centered approach to the education. The industries today look for employees competent enough to handle real life situations and problems. The application based approach followed by the institutions has given birth to a problem solving temperament in students. The exposure to the industry and its activities during the course via the concept called ‘industry institute interaction’ has helped in honing the skills of the budding pharmacist.

The most important approach nowadays is the emphasis on research in institutions. Companies such as Biocon, Cipla, etc have innovated and revolutionized modern medicine due to their firm grounding in research. The research centric teaching has helped students put their ideas onto paper. To promote research, at the institutional level, we see ties between the institutes and the government, making it easier to get grants to assist suggested research. Institutions approved by the UGC, AICTE are given grants. This has helped in inducing a research based environment at the grass root level.

The most important aspect in the professional development has been catered to by the institutions – the overall development of the individual. The pharmacists trained are not only innovative but also are good at managing and marketing. This has led to overseas trade and a boost to the economy. India’s one of the largest manufacturers of pharmaceuticals in the world. It is one of the largest exporters. Due to the education, and our scientific temper, we have come up with newer technologies and generic medication. Apart from this, the managerial skills of today’s pharmacists which come along with solid knowledge about the products, we have a huge stake at the world commerce. The pharmaceutical industry has put India on the map.

The best part is the humanitarian touch. This profession in the country has been developed in such a manner that it serves the people directly. In today’s scenario, especially with the growing demand of clinical pharmacy, we see a direct contact between the pharmacists and the population. This concept has been inculcated into the minds of the students from the very first day of their professional development. We are taught to serve the people.
The current working of the institutions in the country is providing various opportunities to the students, making them competent professionals. Budding pharmacists are being trained effectively everyday by taking a practical approach.

Encouragement from the government, laboratories has led to a growing demand of this field. Companies have begun to provide huge platforms for the potential of these professionals to be recognized. After all, it all starts from the education, which is being wonderfully taken care of.

Position of Indian Pharmacist in Indian Society

Priya Wadgaonkar
S.Y B. Pharm

Do more than belong: participate. Do more than care: help. Do more than believe: practice. Do more than dream: work", that is what healthcare professionals around the globe believe while shouldering responsibilities as a healthcare professional. Pharmacist – an integral member of the health care system is expected to fulfill all these responsibilities.

The role of the pharmacist has shifted from the classical "lick, stick, and pour" dispensary role to being an integrated member of the health care team directly involved in patient care. Pharmacists interpret and communicate this specialized knowledge to patients, physicians, and other health care providers. However in India, Pharmacists are neither in the spotlight nor much within hearing distance.

This is quite evident by various facts and incidences. The word "Pharmacist" is missing from the National Health Policy of the country (2002), in spite of voices of protests raised by the fraternity; the HLEG (High Level Expert Group) and the advisory members, a total of 130 odd in all, which formulated the health plan for the XII th Five Year Plan has no Pharmacist. There have been attempts to prove and thus eliminate the need for presence of a Pharmacist in a pharmacy, and even though legally it has not been successful, the Pharmacist is still “missing” from plenty of pharmacies in the country.

Pharmacy education in India is more product and industry oriented, in contrast to the situation in developed nations where pharmacists are included in mainstream of health care systems. Compared with foreign countries of the world like the United States of America, United Kingdom, Canada ,Russia, European countries etc. where Pharmacists work in every aspect of the healthcare system including community , hospital pharmacy, in industry , research and training other healthcare persons. They shoulder responsibilities like processing of prescriptions, monitoring of drug utilization, extemporaneous preparation and small scale manufacture of medicines, health promotion, serves as a member of policy-making committees including those concerned with drug selection etc.
Pharmacists form an important component of the health workforce in most countries. However, if one sees the structure and hierarchy of the public health services (under MOHFW and the public sector undertakings including the defence services, railways, etc.) in India, Pharmacists have low priority. In many centres, the post of Pharmacist is not created, but dispensing of medicines goes on (obviously by unqualified persons including by attendants/helpers / etc). The Pharmacist, where existent, is restricted to the role of inventory control (and at times of furniture, equipments also), record keeping and handing out medicines against prescriptions, with limited scope of work expansions even if given promotions; and the vast areas of public health activities are handled by every other worker, even with no formal qualifications.

For the profession to develop, major initiatives should be established by setting practice standards, qualification and registration of pharmacists at all levels and quality assurance standards for practice of pharmacy in the National Health Programs. There is thus a need for serious contemplation by the PCI, professional pharmacy associations, pharmacy educational institutions and pharmacy professionals to work towards proving the worth of the pharmacists in the public health sector!


The pharmaceutical industry is in the midst of a fundamental transformation. Institutional regulations that have been in place for decades are being removed and competitive pressures force pharmaceutical companies to adopt customer-oriented strategies. Information technology which has traditionally been applied to many processes in this industry is an important enabler for the interaction with key customer segments such as physicians and patients. However, developing and transforming customer relationships is merely a technological undertaking. Changes are required regarding strategy, processes as well as the systems architecture. To develop an integrated customer relationship management strategy this research draws on elements from established business redesign. The emphasis is on portals that bundle services for the patient’s and physician’s customer processes. This architecture framework has been elaborated in cooperation with nine companies and applied at a major pharmaceutical company.
The pharmaceutical industry is currently undergoing a period of fundamental change. Structural changes, such as the direct sale of prescription drugs, increasingly well-informed patients, the growing number of cost reductions of governments and health insurance providers as well as new Internet-based initiatives have significant impact on a pharma company’s relationships with its customers.

In this competitive market environment developing and selling high volume products ('blockbusters') to physicians, hospitals, and wholesalers is simply no longer sufficient. Like in other industries increasing customer retention by expanding and personalizing the services offered to customers becomes a strategic imperative. Compared to the banking or high tech sector, pharma companies still have a strong focus on their products and are only at the beginning of systematically managing relationships to customers. Currently, a variety of changes is taking place which influence a pharma company’s downstream (or customer facing) relationships. Innovations in R&D and CRM are seen as the main areas of action for pharma companies [8]. While the former are an established research topic addressing product innovation, the latter is a young field in the pharma industry.

Leaders in the profession of pharmacy have articulated a vision of pharmacists as providers of patient centered care (PCC) services and the Doctor of Pharmacy was established as the required practice degree to achieve this vision. Pharmacist-provided PCC services have been shown to reduce medication costs and improve patient compliance with therapies. While community pharmacists are capable of, and are ideally placed for, providing PCC services, in fact they devote most of their time to prescription dispensing rather than direct patient care. As professionals, community pharmacists are charged with protecting society by providing expert services to help consumers manage risks associated with drug therapies. Historically pharmacists fulfilled this responsibility by accurately dispensing prescription medications, verifying doses, and allergy checking. This limited view of pharmacy practice is insufficient in light of the modern view of pharmacists as providers of PCC. The consumers’ view of community pharmacy as a profession represents a barrier to transforming the basis of community pharmacy from product distribution to providing PCC services.

Community pharmacists are conferred with social authority to dictate the manner in which their professional services are provided. Pharmacists can therefore facilitate the transition to PCC as the primary function of community pharmacy by exercising their social authority to engage consumers in their roles in the new patient-pharmacist relationship.
INDIA: FROM VISION OF YOUTH
India is a diverse nation, stretching from Kashmir to Kanyakumari from Gujarat to Gangtok with a varied heritage and culture and a land of knowledge. Our country produces some of the brightest minds of the world. In ancient India there was Gurukul system of education and all learning was closely linked to nature and to life, and not confined to memorizing some information. But as we entered the threshold of the new millennium with the changing facets of the world; our country has witnessed a lot of transformations. The days are gone when Guru-Shishya parampara was at the apogee, where learning was boundless and now are the days when education has just become a business. Teaching is confined to classrooms and the link with nature is broken, as also the close relationship between the teacher and the student.

Right from the time the toddler starts learning the A,B,C,D's of life he experiences the heat of competition which further fades away the fun of learning. Coming to think of it, healthy competition is the driving force for some to study better but when it gets bitter the same driving force can be destructive. Fetching marks has become more of a priority than acquiring knowledge. The rule of promoting students till the eighth grade however bad he performs is another matter of grave concern as this leaves certain learning problems unidentified. The extracurricular subjects like arts, needlework, singing are dumped on the child against his wish. All this is the direct outcome of our ossified education system. While the education system earlier believed in imparting knowledge; today it is stagnant.

With the reservation of seats some of the meritorious and deserving candidates are devoid of the best of institutions and education. This is sheer injustice on their parts as they are more deserving than their contemporaries. Also underpayment of teachers adds to the disorganised system. The system compels students to waste their time in completion of written assignments which has never seeped into their minds. The youth today spend exorbitantly on their education and hence expect a better job and handsome pay. They are willing to go to any lengths for that. Is that the kind of doctors and lawyers we want to churn out?

On the other side of the globe the students have the liberty to choose their area of interest be it music, sports or any other field he is always encouraged. On the contrary students here are precluded from opting for their interests as arts and other fields are still not welcome by people who ridicule it. Research is still frowned upon and not much monetary help provided by the government. Because of all this we see many Indians fleeing abroad which provides them with excellent opportunities.

With the numerous amendments we also witness some betterments. The adoption of e-learning and utilization of OHD and powerpoints creates a visual impact, also the shifting towards a more practical way of learning is of great benefits. The chalk and talk
days have gone and technology based learning has replaced it. Envision India 2050 - The Edutech Hubb with the rapid advancements in education. I see a better system and a higher number of learned people in the near future.

The time is not far when India will be known as a developed nation rather than a developing country as education builds the man and the man builds the nation. And it is up to us, the youth of this nation to build it into the nation it deserves to be.

CHALLENGES FOR YOUTH IN INDIA

SHWETA S. NENE, SMITA JAGTAP
PRIYANKA S. KAWATHE
T. Y. B. Pharm

Young people empowered to act and inspire others to act in order to make a positive change. We feel proud that we have born in India. In western country, at the age of 18-20 they have to work & generation is hardly self-dependent till the age 25-30. So today’s generation gets lot of energy and free time. There are many things that can be done if they utilize their time and energy well. What is needed is will and interest to do.

To make our country a superpower nation as per the vision of Dr. Abdul Kalam by 2020 is much more requisite. There are many challenges which are lying ahead of our country. The lack of basic infrastructure in rural areas, state of education system, lack of good leaders on national front, lack of trust and faith in the system, scams and frauds other than this terrorism, naxalite, corruption, poverty, communal disharmony...... List cannot be stopped but this things can be stopped and one of the solutions is ‘politics free from corruption’. Better political atmosphere can change wrong things. But whom to trust and on whom to keep put faith is a matter of concern for today’s youth. As soon as we open the newspaper we read that most of Indian leaders are get stuck in the scams like 2G, Aadarsh, rape cases. New generation have an ability to change this situation. Current lot wants new ideas and innovation but doesn’t want the change to take place. The resistance to change has to be overcome. Else there are many daunting challenges.

India has been changed for last twenty years, young population has changed fast and surprisingly, this is because of globalization and economic improvement. Secondly, computer and mobile revolution.

It is very harsh to have less number of toilets than number of mobiles. Before pre-independence Mahatma Gandhi’s ‘charkha’ was the sign of self-development and now computer, mobile phones are the symbol of self-development. Another reason is 24 hrs news and entertainment channel.

No nation can ever be strong without national character. If small nations like Japan and South Korea have become world leaders in technology, it is by virtue of the sincerity & integrity. But most of the Indians are indulged into materialistic values like opportunism, bribery & corruption. It is the most dangerous virus entered in our system, & has seeped into all walks of like & ethical values.

Gandhiji has already taught us how to reconcile truth with political leaders. If our political leaders cultivate noble virtues, they will be able to lead the country to unparalleled heights of glory & greatness. India is dominated by caste-system, poverty, & backwardness. Agriculture is still carried on with old techniques, it is because of the farmers’ ignorance to modern or sophisticated techniques available in other countries. In most of the parts in India a large number of scheduled castes & tribes are forced to lead a horrible life, it is, because of lack of education among them. We visualize all my country men to be well educated, to be enlightened & liberated human beings.

We are not a pessimist & have firm conviction that we will be grown into a developed nation. We have many problems & are hardly any solutions but we, youths won’t give up till the death. We will dedicate ourselves to national reconstruction & will act in a team-spirit. Our plans may not be successful in the beginning but it would be successful if we pursue them with purpose, sincerity & devotion. Well begun is half done.
Leaders in the profession of pharmacy have articulated a vision of pharmacists as providers of patient-centered care (PCC) services and the Doctor of Pharmacy was established as the required practice degree to achieve this vision. Pharmacist-provided PCC services have been shown to reduce medication costs and improve patient compliance with therapies. While community pharmacists are capable of, and are ideally placed for, providing PCC services, in fact they devote most of their time to prescription dispensing rather than direct patient care. As professionals, community pharmacists are charged with protecting society by providing expert services to help consumers manage risks associated with drug therapies. Historically pharmacists fulfilled this responsibility by accurately dispensing prescription medications, verifying doses, and allergy checking. This limited view of pharmacy practice is insufficient in light of the modern view of pharmacists as providers of PCC.

For more than fifty years, a debate whether the fields of pharmacy constitute a profession has appeared in the pharmacy literature. This debate is currently sustained by continuing efforts to transform the basis of community pharmacy practice from product distribution to patient-centered care (PCC) services. Pharmacy leaders have articulated a vision of pharmacists as providers of PCC services and established a Doctor of Pharmacy as the required practice degree to implement this vision.

PCC is defined “an approach that adopts the perspective of patients—what matters to them, what affects them either positively or negatively, and their experience of illness,” and more specifically as “providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.” Pharmaceutical care, defined as “the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient’s quality

CURRENT AND FUTURE SCENARIO

The current era of globalization has witnessed evolution in the professions of the health sector, especially in pharmacy. Whereas previously the pharmacist worldwide was seen as responsible primarily for manufacturing and supplying medicines, today the pharmacist’s role has evolved towards a clinical orientation. The profession is still under continuous transition. With change in the health demands, pharmacists have a further role to play in patient care. The precise role of a pharmacist in the health setting is altering and varies significantly from country to country. In contrast to the developed world, pharmacists in developing countries are not fully executing their potential role. They are still struggling for the recognition of their role that can help to improve the health care system.

Career in Pharmacy:

The Career options after completing B Pharm or M Pharm are as follows.

Pharmacist – Being in the health-related field, the B Pharm graduate can be Hospital Pharmacist or Community Pharmacist.

Teaching - B Pharm - First Class students are eligible to teach as lecturers in the D Pharm programme, where as M Pharm, First Class students can get a lecturer’s job in pharmacy degree colleges. It takes about 5 years to reach the grade of Sr. lecturer and about 10 years to become Assistant Professor and about 12 years to become Professor or a Principal of a college. While in teaching profession they can do research in pharmaceutical field and strive to become a well-known Research Scientist.
Clinical Research - B Pharm/ M Pharm degree holders can take up career in clinical research. The human testing phase is called the clinical trial.

Pharmaceutical industry - The pharmaceutical industry is a complex, multi-factorial environment, but with the overall aim of discovering, developing. 

Quality Assurance Health Manager – The Pharmacy graduate can play an important role. He can play a key role in spreading awareness amongst the people about AIDS and the preventive measures to be taken.

Medical Transcription - The B Pharm graduate can work with medical practitioners to maintain the patient treatment history.

Data Manager - A pharmacist can seek employment as “Data Manager” to store the data in the computer and process it using software developed for the purpose.

Regulatory Manager - A pharmacy graduate can work as “Regulatory Manager” (RM) in companies and contract research organization. As an RM he has to oversee regulatory documentation such as Clinical trial approval permission, marketing approval permission etc.

Career in Regulatory bodies - A Pharmacist can be absorbed in the Regulatory bodies like Food and Drug Administration. Pharmacist having experience in clinical trial centres can also work as an inspector to inspect the clinical trial process. For these government jobs the student needs to appear and pass the MPSC examination.

Biotechnology is a fast growing branch and the B Pharm graduates can opt for post graduate diploma programme in Bioinformatics. They can handle the job of monitoring the conduct of clinical trials that are conducted on human volunteers.

The pharmacy profession in the international context

WHO has contributed effectively towards encouraging and defending the role of pharmacists worldwide. Although all health care providers and the public are rationally involved in using drugs, WHO has recommended a special role for pharmacists, particularly in quality assurance and the safe and effective administration of drugs. The International Pharmaceutical Federation (FIP) and WHO developed the concept of “The seven star pharmacist”, which stated that a well-rounded pharmacist should be a compassionate care giver, decision maker, active communicator, lifelong learner and good manager; and should possess good leadership qualities and the ability to be a teacher and researcher. According to WHO, future pharmacists must possess specific knowledge, attitudes, skills and behaviors in support of their roles. Besides their pivotal role in public health, pharmacists can also act as advisors to physicians and nurses and contribute to policy decisions.

Pharmacy practice in developing countries

Pharmacy practice models in developing countries vary significantly from one country to another. Some of the major issues identified as barriers to effective pharmacy practice models in these countries include an acute shortage of qualified pharmacists and no implementation of dispensing separation practices especially in countries where the pharmacist is not the sole dispenser and medical practitioners are allowed to dispense as well and a lack of standard practice guidelines.

For example, in a country such as Malaysia, which is one of the leading countries in terms of economic growth in the south-east Asia region, there is an acute shortage of pharmacists practicing in community settings. Data for 2006 showed that the ratio of pharmacists to population in Malaysia was 1:6207. Doctors in Malaysia still dispense medications as a part of their professional practice. There is still no separation of functions related to drug dispensing and prescribing between doctors’ clinics and pharmacies. Registered pharmacists are not the only professionals with the legal right and responsibility of dispensing medications. Although the call for separation has been made for the last 20 years, the government still...
believes that due to the shortage of pharmacists the separation cannot be implemented. Another reason for delaying the separation is the objection of medical practitioners. Looking at the perspective of African nations such as Ghana, the shortage of pharmacists is even worse: it has been reported that only 619 pharmacists are serving 2.9 million people in Greater Accra, which is far behind the WHO recommendation. In developing countries, the urban population is more affluent. As a result, health professionals such as pharmacists prefer to work in cities rather than rural areas. The lack of human resources creates a significant difference between the health services available in the urban and rural areas. In many cases this is due to the shortage of pharmacists. Other countries, such as India, have a comparatively high number of trained pharmacists, but their pharmacy training is focused more towards the industrial sector. This is due mainly to the demand from the industrial side and the focus of the national pharmacy curriculum in most universities, which covers mainly subjects pertaining to the production aspects of pharmaceuticals.

Pharmaceutical services in developing countries face some specific challenges unlike those faced by pharmacists in the developed world.

**Transformation of Pharmacy**

These are times of enormous change in healthcare and the pharmacy profession and pharmaceutical education must prepare students to enter into the practice of pharmacy, in whatever areas are appropriate to the environment. Pharmacy education in India, Pakistan and Bangladesh both at the B.Pharm and M.Pharm levels, is taught as an industry and product oriented profession with a focus on the basic sciences. The pharmacists generally seek avenues other than pharmacy practice. These pharmacists prefer placements in production, regulatory affairs, management and quality assurance, and marketing with the pharmaceutical industry. In order to demonstrate the requirements for pharmacists it is necessary to undertake a pharmacy workforce study, to review pharmacy education programs, and to compare them with the roles that have been accepted internationally. Then, to design and develop pharmacy degree programs perhaps one program exclusively for industry and another for practice.

- Pankaj Deore  
M. Pharmacy 1st sem (QAT)
We are presently living in an age where a portion of our lives have become a part of the various social networking sites available on the vast world wide web. With the increasing penetration of these networking sites, a new term has also entered our vocabulary – Social Media. Social media is a phrase being tossed around a lot these days, but it can sometimes be difficult to answer the question of what is social media.

“Social media refers to the means of interactions among people in which they create, share, and exchange information and ideas in virtual communities and networks.”

Social media differentiates from traditional/industrial media in many aspects such as quality, reach, frequency, usability, immediacy and permanence. There are many effects that stem from internet usage. There are countless of social networking sites that have created broad connections among teens. If one were to look back over the last decades and try to find some element that affected society as a whole from a technical standpoint, there would be a couple of possible contenders. The advancement of smart phone technology in such a short time is certainly impressive. However, the impact of social media, while intertwined with the smart phone is something that made even more of an impression.

According to one of the last year’s report on online activity, it’s estimated that there are 51 million active internet users across the country and surprisingly 11 million or 21% of the users are from rural India. This speaks volume of the penetration of internet in our daily lives.

Social media has actually made youth highly updated and advanced in the fields either it is engineering or agriculture, environment or mathematics, physics or fiction. Social media helps strengthen relationships among youth. Many people have friends who they have not seen since school, or who have moved away, and they want to stay connected with. They don’t have to worry about losing touch, because social media has it covered. Through social media teens can stay connected with friends no matter the distance or time. Social networks have provided people with the opportunity to connect with others and build better relationships with friends with whom we are unable to meet personally, and letting them know about our life and take input about their lives and events happening with them.

As youth, it’s also very important to understand what’s going on around us rather than just knowing what’s going with friends. Nowadays teens receive digital news from social media sites rather than turning on news channel or reading newspaper. 70% of youth in India receive most of the news stories they read or watch via Facebook or Twitter. It’s amazing how fast news spread on social networking sites. According to leading Indian daily, “Facebook news users get more news from friends and family and see it as news they might well have gotten someplace else if Facebook did not exist. For Twitter users, though, the news links come from a more even mix of family and friends and news organizations. Most of these users also feel that without Twitter, they would have missed this kind of news”. Thus, social media results in teens
being more well-informed about national and global news than they would be otherwise.

Social media has become part of the modern youth's lifestyle. It makes our life so much easier and much more efficient. It has become an essential part of our communication culture that cannot be taken away easily, because we are so dependent on it.

“Without social media we wouldn’t be able to connect with people the way we do now” day.

**Conducting business:**
Social media has come as a boon for markets and salespeople. It is easy to find focused groups, potential partners and even employees on social media networks. More importantly, it gives businesses with time to spare but not the money, the chance to engage people and promote their offerings. In the past, business was conducted in neighbourhoods, but social media has opened up worldwide opportunities and new possibilities.

People still meet in social gatherings, in pubs and discotheques, but it has become easier to find people who share your interests and likes on social media sites. People are also expanding these online interactions to meetings. First introduction are made through social media platforms, then they develop them through phone calls and meetings. In other words the role of social media has become bigger and more complex. Before social media, people would reveal little of their doubts and fears.

But now the onus is on being more transparent. More and more people are shedding their inhibitions and opening up. They are expression thoughts and ideas more openly and becoming more social!

**What can be influenced?**
With social media being used by by millions the world over, the dynamics of power are changing. Mainstream media like television, newspaper and magazines are no longer influencing people the way they used to. Take for example , on Twitter some celebrities have more than a million followers. Some Facebook pages have multitudes of followers. Videos uploaded on YouTube can go viral in minutes. Viral videos may not attract millions of views just for their entertainment value; they may create awareness about an important political or social event in a bid to encourage opinion, voice anger or support. In other words, social media can act as an instrument of positive change.

In every age, culture undergoes many changes. In recent years, no other medium on the internet has influenced us more than social media. Social media has provided us with more options and the means to engage people more effectively. All these factors have made social media indispensable in our daily lives. Social media can be a way out for many people who struggle in life, have no friends, or ain't as social as everyone else. It gives them a chance to meet new people and find friends which they could not have done due to being shy and or nervous. Parents and teachers think all this bad stuff about social media, but behind closed doors its really changing peoples lives. We as a society have become so engulfed in social media that we are failing to realize the level of dependency we now have for it.

Drug and drug addict would be a great analogy. We are addicted, and just like an addict we have built up a tolerance that requires more of the drug to keep us satisfied. Even worse, just like an addict we cannot function normally without being on the drug. Communication between the human race is being negatively affected by a technology invention that was invented to accomplish the absolute opposite of what it has. Social media was supposed to make it easier for us to communicate with each other, but has it done that? We now feel more comfortable speaking to each other behind the cloak of a computer screen, and less comfortable speaking to each other in person. We've opened, but we don't know how to use its contents.
properly. Some of the older generations are psychologically equipped to differentiate between the social media world and the real world, but that really doesn’t matter. It’s the youth we should be concerned with. They will develop into adults that have a misleading perception of what real human communication is. In their minds there will not be a difference between the social media world and the real world. The children are indeed our future, and if our future is under the influence of an addictive mind altering drug we are destined disasters. Social networking sites are disasters.

Social networking sites are nothing more than tools for narcissists. Social networking sites are increasing in popularity but are really destroying natural and healthy interpersonal relationships and foster ignorance of the human condition. Take this example, recently two girls fell into a sewer and though they had their cells phones with them, didn’t have the common sense to call for help, instead they just updated their Facebook pages until someone figured out they were in trouble and called help for them.

Serves as an lazy attempt too see and talk to friends and family.

Another aspect of social media is quite disturbing. Misuse of the social media has resulted serious and dangerous incidents like facebook fraud, misuse of personal information etc. It is equally important to use social media with precaution and use all the protective measures to be away from crime. It should be well understood that misuse of social media is a crime. Let us not do it and let us also discourage the misusers. Let us imagine a world without internet and social media! Can we? Personally I can’t because social media is as real to me as my friends whom I can see. I have searched and created the opportunities, friendship and many more through social media. A decade ago, it was hard to imagine life without other media like letters, telephones, telegrams and now, social media has taken all the place. Contributing to make youths linked to the external world of unending changes, and facilitating the luxury of home with the knowledge of everywhere, the social media plays an indispensable role in youth capacity building.
Education has been a problem in our country and lack of it has been blamed for all sorts of evil for hundreds of years. Even Rabindranath Tagore wrote lengthy articles about how Indian education system needs to change. Funny thing is that from the colonial times, few things have changed. We have established IITs, IIMs, law schools and other institutions of excellence; students now routinely score 90% marks so that even students with 90+ percentage find it difficult to get into the colleges of their choice; but we do more of the same old stuff.

Rote learning still plagues our system, students study only to score marks in exams, and sometimes to crack exams like IIT JEE, AIIMS or CLAT. The colonial masters introduced education systems in India to create clerks and civil servants, and we have not deviated much from that pattern till today. If once the youngsters prepared en masse for civil services and bank officers exams, they now prepare to become engineers. If there are a few centres of educational excellence, for each of those there are thousands of mediocre and terrible schools, colleges and now even universities that do not meet even minimum standards. If things have changed a little bit somewhere, elsewhere things have sunk into further inertia, corruption and lack of ambition.

Creating a few more schools or allowing hundreds of colleges and private universities to mushroom is not going to solve the crisis of education in India. And a crisis it is – we are in a country where people are spending their parent’s life savings and borrowed money on education and even then not getting standard education, and struggling to find employment of their choice. In this country, millions of students are victim of an unrealistic, pointless, mindless rat race. The mind numbing competition and rote learning do not only crush the creativity and originality of millions of Indian students every year, it also drives brilliant students to commit suicide.

We also live in a country where the people see education as the means of climbing the social and economic ladder. If the education system is failing then it is certainly not due to lack of demand for good education, or because a market for education does not exist.

Education system in India is failing because of more intrinsic reasons. There are systemic faults that do not let our demand for good education translate into a great marketplace with excellent education services. I discussed the reasons previously in this article: Will Education make a comeback in India?

Let’s explore something else in this one: what should change in India education system? What needs to be fixed at the earliest? Here is my wish list:

**Reward creativity, original thinking, research and innovation**

Our education system rarely rewards what deserves highest academic accolades. Deviance is discouraged. Risk taking is mocked. Our testing and marking systems need to be built to recognize original contributions, in form of creativity, problem solving,
valuable original research and innovation. If we could do this successfully Indian education system would have changed overnight.

Memorising is no learning; the biggest flaw in our education system is perhaps that it incentivizes memorizing above originality.

Get smarter people to teach

For way too long teaching became the sanctuary of the incompetent. Teaching jobs are until today widely regarded as safe, well-paying, risk-free and low-pressure jobs. Once a teacher told me in high school “Well, if you guys don’t study it is entirely your loss I will get my salary at the end of the month anyway.” He could not put across the lack of incentive for being good at teaching any better. Thousands of terrible teachers all over India are wasting valuable time of young children every day all over India.

Education for all

It is high time to encourage a breed of superstar teachers. The internet has created this possibility – the performance of a teacher now need not be restricted to a small classroom. Now the performance of a teacher can be opened up for the world to see. The better teacher will be more popular, and acquire more students. We need leaders, entrepreneurs in teaching positions, not salaried people trying to hold on to their mantle.

Implement massive technology infrastructure for education

India needs to embrace internet and technology if it has to teach all of its huge population, the majority of which is located in remote villages. Now that we have computers and internet, it makes sense to invest in technological infrastructure that will make access to knowledge easier than ever. Instead of focussing on outdated models of brick and mortar colleges and universities, we need to create educational delivery mechanisms that can actually take the wealth of human knowledge to the masses. The tools for this dissemination will be cheap smartphones, tablets and computers with high speed internet connection. While all these are becoming more possible than ever before, there is lot of innovation yet to take place in this space.

Redefine the purpose of the education system

Our education system is still a colonial education system geared towards generating babus and pen-pushers under the newly acquired skin of modernity. We may have the most number of engineering graduates in the world, but that certainly has not translated into much technological innovation here. Rather, we are busy running the call centres of the rest of the world – that is where our engineering skills end.

The goal of our new education system should be to create entrepreneurs, innovators, artists, scientists, thinkers and writers who can establish the foundation of a knowledge based economy rather than the low quality service provider nation that we are turning into.

Effective deregulation

Until today, an institute of higher education in India must be operating on a not for profit basis. This is discouraging for entrepreneurs and innovators who could have worked in these spaces. On the other hand, many people are using education institutions to hide their black money, and often earning a hefty income from education business through clever structuring and therefore by passing the rule with respect to not earning profit from recognized educational institutions. As a matter of fact, private equity companies have been investing in some education service provider companies which in turn provide services to not for profit educational institutions and earn enviable profits. Sometimes these institutes are so costly that they are outside the rich of most Indian students. There is an urgent need for effective de regulation of Indian
education sector so that there is infusion of sufficient capital and those who provide or create extraordinary educational products or services are adequately rewarded.

**Take mediocrity out of the system**

Our education system today encourages mediocrity in students, in teachers, throughout the system. It is easy to survive as a mediocre student, or a mediocre teacher in an educational institution. No one shuts down a mediocre college or mediocre school. Hard work is always tough, the path to excellence is fraught with difficulties. Mediocrity is comfortable. Our education system will remain subpar or mediocre until we make it clear that it is not ok to be mediocre. If we want excellence, mediocrity cannot be tolerated. Mediocrity has to be discarded as an option. Life of those who are mediocre must be made difficult so that excellence.

**Make reservation irrelevant**

We have reservation in education today because education is not available universally. Education has to be rationed. This is not a long term solution. If we want to emerge as a country build on a knowledge economy, driven by highly educated people we need to make good education so universally available that reservation will lose its meaning.

**Education reservation India**

There is no reservation in online education because it scales. Today top universities worldwide are taking various courses online, and today you can easily attend a live class taught by a top professor of Harvard University online if you want, no matter which country is belong to. This is the future, this is the easy way to beat reservation and make it
Role of youth in nation’s development

Ketan A. Dhole
T.Y.B.Pharm

Vision 2020 can be better described as vision 20/20. That is the perfect vision in American style and this 20/20 vision can be achieved only by young generation of India. It is well known that India is home to a significant proportion of the youth of the world today. All the imperialists of the world are eyeing India as a source of technical manpower. They are looking at our boys and girls as a source of talents at low costs for their future super profits. If the Indian youth make up their mind and work in close unity with working class people, they can foil the plans of Imperialism and Bourgeoisie. The plunder of India can be ended with political power in their hands. The workers, peasants, women and youth will ensure that there is work for all. They will ensure that what is produces is geared towards providing adequacy for all members of society. Unfortunately no one is bothered to dream any such vision. Martin Luther has said “I have a Dream” and the dream has come largely true. If he had not thought of that dream he would have accomplished nothing in his life. To climb high one has to think of climbing the Everest. One may not go higher than 10,000 feet but even that will not be attained if you have no better dreams of going up to the top floor of your office in a life.

In recent years the world has come to look at India with renewed respect, recognizing a strong and prosperous global power in the world. It is also a future when the fabled richness of India’s art, culture, and intellectual explorations and spirituals pursuits will begin to show its full radiance bringing much success to the troubled spirit of Modern India.

Is it a dream? Yes. Is it an impossible dream? No, it’s not. This can be done by the youth of Indians. The youth is the spring of Life. It is the age of discovery and dreams. When they dream they dream not only for the good future of themselves but also for the good future for nation and entire humanity. Their dreams take them to stars and galaxies to the far corners of the unknown and some of them like our own Kalpana Chawla pursue their dream, till they realize it and die for it in process.

If any section of the society in any country is most important for change, again it is the young people. Patriotism comes naturally to youngpeople.

But they also respond early to the call of Internationalism. The hopes of the youth are:
1. A world free of poverty, unemployment, inequality and exploitation of man by man.
2. A world free of discrimination on the grounds of race, color, language and gender.
3. A world full of creative challenges and opportunities to conquer them.

But these are not just the empty hopes. Modern science and technology and increasing vistas of socio economic cooperation among nations have brought these hopes out in the reach of realization. In recent times terrorism has emerged as one of the greatest threat to peace and democratic policy. The youth are drawn between acts of terrorism. In some cases it is
not the terrorism, but a freedom struggle. This is how our neighbors are trying to justify its policy of cross-border terrorism in Jammu and Kashmir. The youth organizations should carry out an awareness campaign to expose justification or condoning of terrorism anywhere and under whatever pretext.

Role of Youth:
A. The youth can play a vital role in the implementation of elimination of terrorism. If the energy, intelligence and resources of youth are fully and properly utilized the country will prosper.
B. The youth will have to compete with sporting spirit. Just look at the spirit of internationalism that today prevails in the cricketing world. With the start of any cricket tournament, no matters which team wins, Cricket wins, youthfulness will win. The spirit of oneness will win.
C. The youth would need to Aspire for entrepreneurship rather than conventional employment.
D. The hopes of young people can be fulfilled only in conditions of peace, only in a civilized and cooperative world order.
E. Young people are full of vibrant ideas. When properly motivated and sufficiently guided, they want in their life.
F. Young people have energy to try out things and the patience to learn from mistakes. Giving them opportunities to plan, to decide and to work prepares them to face harsher realities in life.
G. Young participation is important because the youth are the country’s power. The youth recognize problems and can solve them. The youth are strong forces in social movements. They educate children about their rights. They help other young people attain a higher level of Intellectual ability and to become qualified adults.

What should be the vision of the young generation for India 2020? Vision 2020 says that:
1. Instead of brain drain, we can be the magnets for bright minds world over.
2. Our judicial system could be a model for fairness, promptness and incorruptibility.
3. Our legislatures could be an acme of integrity, farsightedness and purposefulness.
4. Our habitats could be clean with abundant municipal services.
5. Our youth can be the Olympic champions.
6. We can have 100 percent literacy.
7. The per capita income can go up in geometric proportions.
8. We can have full employment.
9. We can earn the reputation of being the most transparent and honest nation.
10. We could be the most competitive nation.

India can become a developed nation only if everyone contributes to the best of his or her capacity and ability. The youth are wholly experimental and with the full utilization of the talents of the youth, India will become a complete nation. Let us hope for the same.

"Youth is like a fire
It crept forward.
A Spark at first
Growing into a flame
The brightening into a Blaze."
संस्कृती

PANKAJ DEORE
M.Pharm Ist SEM

Modern डाळून ना आहे
‘चेतन भगत’ शिक्षण वाचत नाही
शिराडरकर पहरीत कसे?
प्रेमाधावी काही सुचत नाही

आणेचा पेंचता प्रेमाधावी
पोरणा आहार भागूक असतो?
आई-बाबना बिचरता-यात्रा
प्रेमाधावीचा अपडाउक असतो?

माघल्या आतव्वळांना break up हात
चल मिळा नजर search करत ना जाणू
लोक facebook वा status बदलत
'shame on you girls, i am single now'
खूं-खूंकीचा पोपांणा देताना
शास्त्री आई मेकर बातते
पोरणा मासी Disco व जाणर
‘जुट’ आणि ‘रूख’ सुखाच बोझावते

पार्श्वावर्त्या आशुलिंगावर्त्या
पोरणा आमलाच नाही सतते
'खूंत' लवकर भूल जाण नसते

रिंड' life नं 'real' life बदलती
शक्ती-पुर्ती मागविन धारण असते
'जस्तीचा क्षमोनाती' कदानिंत
बदलतेची आमाची "पुर्ती" असते

१५ ऑक्टॉबर, २६ जानेवारी पुर्ता
आमचा भारतीय आंबेच असतो?
ते देवत द्वारवेश फक्त
भारत मासा देश असतो?

तू नेमी संगाव्यौरी
मी मुळीच Romanic नाही महणून
मी हो मग धडपडत राहावो?
मी कसा आहे महणून?

तू explain कराव्यूरी
फिल्म कसा असावा महणून
मी हो तूला follow कराव्यो?
मी तसा दिसावा महणून?

तू impress वाहवी महणून
net वरच्या काहीता जबाब्यो?
त्यात्लुक एखाडू छानशी
तूमाच्या नूसती वाचाव्यो?

आज काहीता आहे माईयांकडे
pण एकनारं मन घडू नाही चतुरे
‘लहो मजऱ्याऱ्यं एखांदो’ महणानारा
tो वेळा हड़ नाही

tूला माझी काहीता
कधीच कठलो नसावी
त्यामुख्येच कदाचाती
tू हो मला मिळाला नसावी

भावना

PANKAJ DEORE
M.Pharm Ist SEM

आज माईया काहीतें
मी तूला शोधत बसतो?
तू सापडत नाही त्या
उगाच लिहात असतो?

काय मला म्हणावेच ते
वक्षत अलंग असेल एवाना
काहीता समजाव्यो नसतेच मुळी
समजाव्यो असतात त्या फक्त
भावना
As a young citizen of India,

Armed with technology, knowledge and love for my nation, I realize, small aim is a crime.

I will work and sweat for a great vision, the vision of transforming India into a developed nation powered by economic strength with value system.

I am one of the citizens of a billion, only the vision will ignite the billion souls.

It has entered into me, the ignited soul compared to any resource, is the most powerful resource on the earth, above the earth and under the earth.

I will keep the lamp of knowledge burning to achieve the vision - Developed India.

-Former President, Dr. A. P. J. Abdul Kalam.

East or west, North or South, youth everywhere under the Sun, is in a state of restlessness and revolt. It was so in the past and it shall be so in future as well, howsoever glamorous and glittering the social fabric might become and howsoever secure and stable they might feel under the new dispensation.

Youth is the spring of Life. It is the age of discovery and dreams. With the largest youth population in the world today, world is eyeing India as a source of technical manpower. They are looking at our youth as a source of talents at low costs for their future super profits.

If Indian youth makes up their mind and work in close unity with working class people, they can hold the political power in their hands. Indian youth has the power to make our country from developing nation to a developed nation.

Is it a dream?
No, their dreams take them to stars and galaxies like our own Kalpana Chawla pursued her dream, till they realize it and die for it in process.

HOPES OF YOUTH
The youth hopes for a world free of poverty, unemployment, inequality and exploitation of man by man. A world free of discrimination on the grounds of race, colour, language and gender. A world full of creative challenges and opportunities to conquer them.

But let us convert these hopes in reality. For that unity will give us the strength.

The role of youth is of most importance in today’s time.

UNFORTUNATE EVENTS
Unfortunately no one is bothered to dream any vision.
Another problem is its indifferent attitude towards things, situation and politics. The new cool formula of “let the things are” is proving fatal to India’s development.

Lack of unity and spirit is the major setback.

It’s time the youth, the students have to realize their power, their role, their duties and their responsibility and stand up for their rights.

Now it’s time that instead of brain drain we should act like magnets and attract world to India.
HOW CAN YOUTH MAKE INDIA A DEVELOPED NATION

India can become a developed nation only if everyone contributes to the best of his or her capacity and ability. Youth is wholly experimental and with the full utilization of the talents of the Youth, India will become a complete Nation. Let us hope for the same. The chords of their impulses, instincts and institutions are always vocal and vibrant and they all are fired up with motive to do something.

No doubt the problems of youth in different parts of the world under different socio-political systems differ in contexts & contents. But one thing is almost certain that the modern youth is up against problems, the like of which did not exist in the past. Indian youth is going through turbulent times. The youth of the country has been going adrift. They feel frustrated. Many reasons for this sense of frustration and. Life has changed so fast in few decades that the entire social structure has undergone a big change.

PROBLEMS –
Overpopulation has made life very competitive right from the time they enter secondary school. Healthy competition does not exist. Besides overpopulation, political upheavals, unemployment, erosion in Indian values, influence of western civilization and too much commercialization has made life very complicated for the new generation. Ever since the country went in for massive industrialization, the old joint family system broke down and became obsolete. It has been replaced by nuclear family system especially in urban areas. The rising cost of living has compelled many women to step out of the house and share financial burden with the man. As a consequence, the young are left alone to fend for themselves at a time when they need guidance, reassurance and encouragement. They begin to depend more on their peer groups and sometimes are led astray. They take drugs, alcohol to while away their time and nurse their hurt feelings. Boys do not hesitate to demand cash and other items at the time of marriage, under pressure from their parents or to satisfy their own greed. The youth have to learn to take independent decisions. They are too bewildered to distinguish right from wrong. The absence of an adult to guide them makes it difficult for them to make the right choice and weigh the pros and cons of any act.

INFLUENCE OF RELIGION
Religion had played a very crucial role in the life of the people of our country. It is sad that of late we have started denigrating our own religious beliefs and age-old values and have started aping the west. This slow erosion in the values of life has added to the confusion. The young no longer understand the significance of certain beliefs and practices. Hence they reject them. Religion formed the basis of sound moral development. Religion decides the DO’S AND DONT’S more than right and wrong. Blind beliefs still prevail in the country leading to superstitious behaviour hence hurdling the progress.

HOW CAN YOUTH CHANGE THIS SENARIO?
Education should prepare them for life. It should help them to identify their interests and aptitude and give them a sense of direction.
They become victims of political parties and end up ruining their lives. It adds to their disillusionment with the elders and politicians. In the absence of any real models to emulate they feel lost and confused.

The youth, by and large, is more anxious and concerned about its future than how the present treats them they need motivation in a country like India where the problem of educated unemployment is already nerve-breaking, the nightmares unleashed by the report completely shook the youth and in no time they were up in arms against the establishment.
The leadership failure to inspire the youth with their ideal thinking and action has made the Indian youth either cynics or snobs, unable to cope with the day-to-day problems and predicaments.
It cannot be denied that, it is the young who are going to be the builders of tomorrow. Otherwise the boundless energy of the youth will be dissipated in the wrong direction and lead to chaos in the country.
India has completed a journey of 60 successful years. During this period we have witnessed the worst and the best. The changes our country went through have helped it to evolve as a stronger and progressive nation in the world. It's no secret that for our generation politics as a career comes way down the career option list. Politics is losing its appeal amongst the youth of India.

Reasons are many like rampant corruption, criminalisation of politics, apathy towards people’s needs; lack of accountability and the list goes on. When we have so many options to explore, why should we dirty our hands in politics?

We put the blame on the government and our elected members whenever we see or feel that our representatives are not doing their job efficiently. But more than 50 per cent of population does not take part in political process of our country. Thus we have no right to blame anyone except ourselves.

We all feel that the system needs to be changed but we don’t want to take the responsibility on our shoulders. We have potential human resources who can change the scenario.

The perception of our generation about politics has generally been negative. Though we have few young politicians, they have not been allowed to stretch their wings. The politicians need to open up and promote the young generation in the mainstream politics. It is stereotype to think that only people with gray hair can become successful politicians.

If we truly believe that the future of any country lies in the hands of the youth than we need to take a step forward. Only youth can change the pace and width of the course of our nation’s progress and make India a global giant. If we want to see a better India it’s time to take charge. We have to build a foundation now for a prosperous future. Unless youth feel concerned and gets involved in politics at all stages, we cannot expect a nation to grow.

India is one of the leading nations in the world in terms of science and technology. India has the second largest pool of scientists and engineers in the world. In terms of technological advancements and scientific achievements India is second. India belongs to the select group of countries who have developed indigenous nuclear technology. India is among the few countries which have developed ballistic missiles. In the field of space, science India is among the few countries which have the capability to launch GSLV satellite. India's achievements in the field of IT and software are acknowledged all over the world. Here are some interesting facts about science and technology in India.

Let's together hold the possibilities
Let's together identify responsibilities
We are not the one who will run
without completing the task, we cannot have fun.

We are the youth of today
we are determined that we will achieve our goals
one day
with the power of truth and believe
we will provide everyone a sense of relief

Don't dare to stop us
don't dare to mock at us
although we are peace lovers
but don’t think we will hide under covers

One day our dream will come true
negatives will remain few
the day we will prove ourselves
this world will be a happy place.

-Agony.
शिक्षण

Sushil Londhe
S. Y. B.Pharm

‘शिक्षण’ आपण लहानपणपासून एकत्र आलेला अशे. गुप्त वेळा आंकलेला आपण तेंदुवाच्या अशे. तरीही सारखे माणणार शिक्षणात त्याप्रमाणे लहानपणा या अध्यायात विवरण वाटपणे राहे. तत्परत्व सोबत आणेला आपण लहानपणात त्याप्रमाणे आपण वाटपणे आणेला अध्यायात विवरण वाटपणे आपण लहानपणात त्याप्रमाणे आपण वाटपणे आणेला अध्यायात विवरण वाटपणे आपण लहानपणात त्याप्रमाणे आपण वाटपणे आणेला अध्यायात विवरण वाटपणे आपण लहानपणात त्याप्रमाणे आपण वाटपणे आणेला अध्यायात विवरण वाटपणे आपण लहानपणात त्याप्रमाणे आपण वाटपणे

शिक्षणाचा गवतान महत्त्वाचा अर्थ आपण उपलब्धता माणणे जमीनाची आर्थिक/वाणी क्षेत्रात निर्माण करणे. शिक्षण ही जमीनाचा ते अपणी मुख्यपणे अध्येयार्थी मिळाला क्रिया आहे. प्रथम साइंस आपण प्रथम साइंस आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया आपण क्रिया

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“आमची कोण आहेत ??? ”

UDDHAV DHOTRE
M.PHARM IV SEM

“ मोडलेला कणा ”

UDDHAV DHOTRE
M.PHARM IV SEM

डॉक्टर आहेत निर्देशक
तर आमची आहेत निर्देशक
डॉक्टर देव आहेत
तर आमची कोण आहेत ..... 
डॉक्टरला आहे मान सहान
त्यात त्याची वेगळीच शान
आमी करती गुनतज जीवन रांन
tेरीयुक्त सहन करता लागतो अपघात ..... 
एवढे शिक्षण धेरूनधेरून
tेरीसाठी दयाऱ्या लागतो विज्ञना
मन आमलाच वातां खऱ्यां या
शिक्षणव्यवस्थेने आपल्या फलमिळा ..... 
सांथ आणंदाच दुकान टकायचे आहे
tेरी डॉक्टरला दयाऱ्या लागते म्हणून गोड रक्कम
मन गुलाबी संगं आपल्या भवसाय
कधी होणार भक्तम ..... 
या भवसायला कंटदुळ
कधी कधी होळहात येतं पाणी
मन गुलाबी संगं आपल्या कधी गणार
आणविकी सुंदर गणारी
शेवटी एवढच वातां कधी होणार
आपली लोक शहरानी ..... आपली लोक शहरानी !!!
The world’s largest democracy has long been tagged as a kaleidoscope (melting pot) of all the different cultures of the world. Indeed, one who has been to India will agree that this adjective suits the country. Her demographic variety remains not only her strongest appeal that lure countless foreigners but also her uniqueness. Often qualified as the rainbow nation also, India draws her allure from the different ethnicities she possesses. A famous British philosopher once described India as being the daughter of tradition and the grand-daughter of culture. Any Indian should be proud and feel fortunate if not gratitude to be able to dwell in such a diverse social fabric.

Undoubtedly, this social fabric may be fragile at times but it is strengthened by nation building. And this is where the youth has a preponderant role to play. The youth is indubitably the driving force behind a nation, whether it is in terms of human resource or innovation. A nation is built out of the human intellect. True indeed! The fact that many countries with limited resources have been able to attain a steady economic growth and development bears testimony to this affirmation. And they succeeded in doing so by harvesting their human resource.

Young people are a crucial segment of a nation’s development. Their contribution is highly needed. As the saying goes, youngsters are the leaders of tomorrow but the partners of today. India is blessed with a young population. There is no reason as to why the grass should be greener elsewhere if youngsters are given the opportunities to shine here.

In India, young people are generally excluded from any ‘important’ decision making process mainly because:

1. They are perceived as lacking the competencies, skills and qualities;
2. They are not afforded to share power with adults;
3. They are portrayed as lacking the motivation and experience.

Interestingly enough, the very idea of ‘youth citizenship’ – young people as equals – remains a stretch for many adults. The irony is that, once at the table, young people are viewed as a threat to adult power. India has got all that it takes to become a ‘force’ to be reckoned with. She just needs to play the winning card – her young population!

Just imagine India as a place where all citizens are informed about and engaged in all major issues that affect their lives. A place where adults and young people are together at the table, debating, grappling with problems, crafting solutions and jointly deciding on how resources should be allocated.

A robust democracy where everyone, including youngsters exercise their right to select those who should speak and act on their behalf and hold them accountable. Where young people have an equal opportunity to have a sustainable livelihood. Imagine adults and young people working together to build a thriving society. Herein lies the power behind the potential role of youth as nation builders.
Education system in India

Education has been a problem in our country and lack of it has been blamed for all sorts of evil for hundreds of years. Even Rabindranath Tagore wrote lengthy articles about how Indian education system needs to change. Funny thing is that from the colonial times, few things have changed. We have established IITs, IIMs, law schools and other institutions of excellence; students now routinely score 90% marks so that even students with 90 percentage find it difficult to get into the colleges of their choice; but we do more of the same old stuff.

Rote learning still plagues our system, students study only to score marks in exams, and sometimes to crack exams like IIT JEE, AIIMS or CLAT. The colonial masters introduced education systems in India to create clerks and civil servants, and we have not deviated much from that pattern till today. If once the youngsters prepared en masse for civil services and bank officers exams, they now prepare to become engineers.

If there are a few centres of educational excellence, for each of those there are thousands of mediocre and terrible schools, colleges and now even universities that do not meet even minimum standards. If things have changed a little bit somewhere, elsewhere things have sunk into further inertia, corruption and lack of ambition.

Creating a few more schools or allowing hundreds of colleges and private universities to mushroom is not going to solve the crisis of education in India. And a crisis it is – we are in a country where people are spending their parent’s life savings and borrowed money on education – and even then not getting standard education, and struggling to find employment of their choice. In this country, millions of students are victims of an unrealistic, pointless, mindless rat race. The mind numbing competition and rote learning do not only crush the creativity and originality of millions of Indian students every year, but it also drives brilliant students to commit suicide.

We also live in a country where the people see education as the means of climbing the social and economic ladder. If the education system is failing – then it is certainly not due to lack of demand for good education, or because a market for education does not exist.

Education system in India is failing because of more intrinsic reasons. There are systemic faults that do not let our demand for good education translate into a great marketplace with excellent education services.
Role of youth in nation's development

ROLE OF YOUTH IN NATIONAL DEVELOPMENT The term - nation building or national development, is usually used to refer to a constructive process of engaging all citizens in building social cohesion, economic prosperity and political stability in a nation in an inclusive and democratic way. Going by the definition, it is seen that all citizens are to be involved in building or developing a nation. Thus, the involvement of youth in national development is a must. In fact, youths play one of the most important roles in nation building. Youth are not only the leaders of tomorrow, but also the partners of today. Young people are social actors of change and progress. They are a crucial segment of a nation's development. Their contribution, therefore, is highly needed. Youth always has been the key to any of the activities in the world be it war, politics, construction works; you name it and youth has , is and will have been involved, there's no 2 way about it. The hunger, desire, motivation, determination and high energy of the youth can make all the difference in either destroying or building a nation.

The impact of sport on nation building is a popular theme in political science and sociology. It is therefore hardly surprising that many scholars have studied the potential of sport as a nation builder in a fragmented society. Those who study the dynamics of sport have accepted that sport is inseparable from nationalism and that it can form a powerful tool in the hands of politicians. Sports has always made a huge impact on a nation's growth and popularity amongst other nations worldwide. Several sportsmen from India have performed at their best at the International level and bought laurels for the country. One such player is Saina Nehwal.

When Saina Nehwal first burst onto the scene as a 16-year-old in 2006, Sania Mirza was at the height of her pomp: The irreverent messages on her t-shirts as well as the spunk in her attitude made the tennis player a hit with the Indian youth. Mirza had just been named the WTA Newcomer of the Year (2005) too.

The presence of two similarly named champions often caused confusion in newspaper offices. Saina... Sania... Saina... Sania: It was an easy mistake to make when writing a piece on the newbie, particularly in a rush to meet the deadline. Two letters changing positions, you just could not notice the difference. Not surprisingly, Saina would, more often than not, be the afflicted party. The following day, the error would be blamed on typoglycemia (a situation where as long as all the necessary letters are present, and the first and last letters remain the same, readers appear to have little trouble reading the text). The editors were no less mad but at least this was a handy excuse.

Seven years on, such mistakes are fewer and far between. Reason: Imagine an India without cricket and Saina, 23, would be the country's most famous sportsperson. You cannot discount Viswanathan Anand, Leander Paes and a host of Olympic stars but badminton has emerged as India's second most popular sport thanks to the efforts of Saina, PV Sindhu, Parupalli Kashyap and Pullela Gopichand; it is the sport that is getting the media coverage and in which India is challenging the world.
Vision
Uniting youth for a freer and prosperous India

Mission
LYF is a movement of individuals, informal groups and formal associations collaborating to create access and choice in social, cultural, economic, political and environmental spheres for a freer India.

Objectives
• To be a national network of all young people who consider themselves to be liberal and passionate about working towards a freer India based on the principles of liberalism.
• To act as a resource centre of persons, information, standardized courses and educational materials on liberalism which everyone can use and to which people can contribute.
• To establish a political space where individuals can freely exercise their political choices and actively facilitate the emergence of liberal youth leaders in India.
• To coordinate and work with individuals and groups and formal associations committed to the liberal cause irrespective of their gender, religion, caste, age, language, culture and nationality for the realization of these objectives.
• To promote sustained cooperation between members and constituent groups, ensuring their autonomy and diversity of activities, for enhancing the effectiveness and success of the national network.
• To create opportunities for its members to be heard and seen at the international level and act as the counterpart of liberal organisations abroad and thereby support a global movement for freedom.

NativeVision is a youth development initiative for reservation-based American Indian adolescents from across the country. Its aim is to help American Indian youth enjoy a healthy future by providing:
- Exciting fitness activities,
- School completion initiatives, and
- Healthy start programs.

NativeVision is a partnership operated by Johns Hopkins Center for American Indian Health and the National Football League Players Association that mobilizes NFL players and other professional athletes as mentors for Native youth. American Indian adolescents are the most needy and disenfranchised youth group in the US. The NativeVision initiative serves them through programs that build upon the strengths of Native youth as individuals, members of large family networks, and citizens within proud, unique Indian communities.
India must stand up to the world

Suresh Choudhari
T.Y. B.PHARM

I believe that India got its first vision of this in 1857, when we started the war of independence. It is this freedom that we must protect and nurture and built on. If we are not free, no one will respect us.

For fifty years we have been a developing nation. It is time we see ourselves as a developed nation. We are among top 5 nations of the world in terms of GDP. We have 10 percent growth rate in most areas. Our poverty levels are falling, our achievements are being globally recognized today. Yet we lack the self-confidence to see ourselves as a developed nation, self reliant and self assured. Isn't this right?

The India must STAND UP TO THE WORLD. Because I believe that unless India stands up to the world, no one will respect us. Only strength respects strength. We must be strong not only as a military power but also as an economic power. Both must go hand-in-hand.

Why is the media here so negative? Why are we in India so embarrassed to recognize our own strengths, our achievements? We are such a great nation. We have so many amazing success stories but we refuse to acknowledge them. Why? We are the second largest producer of wheat in the world. We are the second largest producers in rice. We are the first in milk production. We are number one in Remote sensing satellites. Look at Dr. Sudarshan, he has transferred the tribal village into a self-sustaining, self-driving unit. There are millions of such achievements but our media is only obsessed with the bad news and failures and disasters.

Why are we, as a nation so obsessed with foreign things? we want foreign TVs, we want foreign shirts. We want foreign technology. Why this obsession with everything imported? Do we not realize that self-respect comes with self-reliance?

You must proclaim. As an aside from yours truly: India is not an under-developed nation; it is a highly developed nation in an advanced state of decay!!!!!

Each and every Indian can make a difference, especially the nation’s youth’

Mission India is a road map for the youth of today who will shape the India of tomorrow. The mission is to transform India into a developed nation and one of the world’s top five economic powers by the year 2020.

Dr. A.P.J. Abdul Kalam and Y.S. Rajan examine India’s strengths and weaknesses to show how this goal is not an unrealistic one.
Perspective is what changes or helps to view something. Each one has his or her own perspective. The young generations perspective is a road map for the way to shape the India of tomorrow. The mission is to transform India into a developed nation and one of the world's top five economic powers by the year 2020. Dr A.P.J. Abdul Kalam examine,India's strengths and weaknesses to show how this goal is not an unrealistic one. Education is a co-current state level subjects and under the Indian Constitution education is made a Fundamental Right and Directive Principles of State Policy further needed free education and other facilities to children. There is no discrimination among the people on the basis of religion, caste or creed/faith etc. However, the minorities are given right to run their own educational institutions with financial aid from Government and they are free to introduce their religion, language in their institution. Education is compulsory and free upto primary standard. India is today one of the six fastest growing economies of the world A highly talented, skilled and English-speaking human resource base forms its backbone. The Indian economy has transformed into a vibrant, rapidly growing consumer market, comprising over 300 million strong middle class with increasing purchasing power. India provides a large market for consumer goods on the one hand and imports capital goods and technology to modernize its manufacturing base on the other. Implication of Science and Technology to mans' use is as old as 2500 B.C. But Science and Technology got its real recognition in India during the British period and were established to meet the needs and requirements of the then government. During post independence period and through the vision of Pandit Jawaharlal Nehru the then Prime Minister,

Science and Technology were developed in a conscious way as a major force for accelerating social and economic change. Nehru clearly expressed his views in his 'Discovery of India': "It was science alone that could solve the problems of hunger and poverty, of insanitation and illiteracy, of superstition and doddering custom and tradition, of vast resources running to waste, of a rich country inhabited by starving people,"

A nation without a cultural heritage is like an orphan who has nothing to feed upon" said Emerson. The individual being, or race, or nation must necessarily have certain roots somewhere. They are not of much value unless they have certain roots in the past which is after all the accumulation of experience of generations. Countries achieve greatness not because of their material prosperity but because they follow traditions. Every country's culture is peculiar to its own nature.

India is deep-rooted in the culture of her past, the glorious past. Her culture is essentially religious and spiritualism is the breath of her nostrils. Religion is our soul and philosophy is in our blood. The philosopher, Will Durrant says, "India is the Motherland of our race and Sanskrit the mother of Europe's languages. She was the mother of our philosophy; mother through the Arabs of much of our mathematics; through the Buddha of much of the ideas embodies in our Christianity; mother through the village community of self-government and democracy. Mother India is in many ways the mother of us all."

Today's youth can make a difference to the country.
Election 2014: What does young India want?

Nikhil Deval  
T.Y. B.PHARM

In this season of endless TV debates between spokespersons of various political hues, we’ve heard a barrage of voices extolling the countless virtues of certain political parties and their leaders. However, there is a legitimate fear that in the din of these loud and often vexatious discussions, critical issues are being deliberately sidelined by those who find it convenient to spin the truth.

No one seems to be asking the crucial question - what does the youth of India want from their future leadership? Politicians with an eye on Delhi need not be reminded that young voters constitute more than 65 per cent of India’s demographic pie, making them inarguably the greatest ‘vote-bank.’ Even keeping political expediency aside, the fact is that the youth are also the most important stakeholders in India’s future. The veteran political strategists of the Congress and BJP have never confronted an electoral calculation as piquant as this. In fact the aspirations and dreams of India’s youth cut across the myriad permutations of caste and religion that the weathered old generals of Indian politics have relied upon since time immemorial to manipulate votes. In this context it would be utterly foolish to discount the youth as a crucial factor in determining India’s next Prime Minister.

Unfortunately, political pundits don’t seem to be taking this factor too seriously. The rural and urban youth are asking loud and uncomfortable questions about tangible issues that concern them. Surnames and caste based manipulation may no longer guarantee votes. The exponential growth in circulation of vernacular news-dailies and regional-TV channels has ensured that political discussions are beamed directly into homes, laying threadbare the strengths and weaknesses of political contenders. Electoral campaigns can no longer be confined to hurried helicopter rallies with slick slogans. Our politicians would do well to abandon their feudal approach in the upcoming elections. Young people care less about emotional platitudes like professed secularism and abstracts like ‘inclusive-growth’ and more about concrete issues that involve employment, education and healthcare. The bitter truth is that Indians are no longer willing to be patronized by a mait-baap regime that guarantees its own existence on mass-doles and employment guarantee schemes that do little to enhance the quality of life of the poor.

Sadly, ceaseless sycophancy often trumps basic common-sense. Obscure yes-men are reminiscent of an age when coteries surrounding royalty would dish out well-crafted dreams to grateful subjects, who were all too willing to lap up the crafty spiel. The stark truth, however, is that the ever-aware youth of India can see through such shameless doublespeak. The talk-show aggression and witty retorts work very well in middle-school debates, but cut little ice with an electorate that is well acquainted with the real issues of their times. Jairam Rameshwas clever in his observation that this election ought to be fought on the plank of ideology and not hero-worship. Ironically, in a country where deity-worship is a cultural reality, personalities are expected to imbibe the ideas and ideology they stand for, thus making personality contests inevitable. India loves a protagonist, and there is nothing wrong with it. The attempt to structure the 2014 election as a battle of ideologies is a disingenuous move that is liable to be rejected by most young voters. The fact is, that after a decade of listless leadership, young Indians are desperately looking for inspirational politicians that take their aspirations seriously.

Instead of embracing the virtues of ‘individualized politics’ why do our leaders take umbrage under the vague and often abstract idea of ‘ideological-contests’? Why do our leaders fear direct debate and discussion? Have our leaders become so far removed from the harsh realities of the common Indian that they actually believe in the efficacy of solving problems through the idealism of abstract ideology?

Young India would like its prospective leaders to share their roadmap for a secure and prosperous future - and not hear the ramblings of party-apologists and stooges who do more harm to their leader’s vision than good. The 2014 election offers India’s political class a rare chance to redeem its flagging legacy. Our country faces far too many problems that can no longer be ‘spun’ away.

Young India is watching intently.
महागाईची आरती

Avinash Namdev Dabde
S.Y.B.Pharm

माझे गुरुजी

Ashok Avhad
T.Y.B.Pharm

ते आज अध्यानक स्नायूपणे जतातील दिसलेले पर्यावरण यांच्या ज्ञानाने जाणते जेणेकरून भावाचे हात त्यांना सांगते. यांनी ते हातांच्या मेंदूतांच्या सार्वजनिक कार्याच्या उपकाराने मला पाठवले वाचकांनी मला उपलब्ध करून आपल्या छात्रांनी लावले.

"किंवा मोटा शाळास मु?" यांच्यात ग्रंजे पणावरे त्यांना ह्याची वाची फुतले गरवते ठरुन वाच्या छात्रांनी यांना सांगते "काय करतोम आता "

गुरुजी प्रमाणी एकूण ते गुलंग गुंगावले आणले किंवा रे मार विचारास?" ते मराठिने मलाने मला पुढे विचारास गराशी किंवा हटले भांडव्या वाच्यांनी दलेली पुलक मी आजही आहेत कार्याचे। "घराचा वाचा" म्हणतात एकूण मार्ग हसले बॉक्सवर्त हात टेस्तुन, पुढे येण्यात मलाने माझ्या मार्गाच्या कृत्यांनाच्या तरी ते लागवड मिळाले. जाताना वाच्या फटका अर्थ आणि दिसलेल्या चपला एवढेच मार्ग मला दिले.
Syllabus

Syllabus

Lectures गंपून Submission चा मुळ होतो पुन्हा रेळ

Journal complete कार्यालयात फार फार जातो वेळ.

चक्क डॉक्युमेंट वाढावा Syllabus चुटकी सर्जो Sampun जातो......

PLs मध्ये वाढून मुळा
paper कावर सो.......... सो............ व जातो ?

College गारवा......

Avhad Ashok,
Jadhav Rahul
T.Y. B.PHARM

Syllabus जग जास्त आहे
दर्शणी बाळती......

Chapters पाहून passing चा......

Problem मनात वाटतो.

तरी lecture चालू राहतात.

डोक्यात काही पुस्तक नाही.

चित्र विचित्र figures (structure) जिवाय

Board वर काहीच विस्त माही.

तितक्यात कुटूटतरी एक मुळी

Time table कधी वेंते......

अन्यायाला काही भाग पंक्ष्याची वेंत.

नंतर Extra lectures मेंदान भाग भाग विकत राहतात...

problems , Example, Theory मंपून

Syllabus लवकर मंपू भागता.

पुढा हात चालू लागतात.

मन मार चालत नाही

सर्जस्विंत्र वर्गांत कोणीच चोलत नाही.
Spandan

B. Pharm Students

First Year B. Pharm 2013-14

Second Year B. Pharm 2013-14
Spandan

The Vital Beat...
2013-14

Third Year B. Pharm 2013-14

Final Year B. Pharm 2013-14
SCOP Boys & Girls Sport Teams
Spandan

The Vital Beat...
2013-14

Our Dedicated NSS Team

Spandan Editorial Committee
Sinhgad Karandak Neon 2014 Participants

Dedicated Duet Singing and Mr. & Ms. Sinhgad Participants

Passionate Fashion Show Participants
Winning Street Play Team

Rocking Group Dance Team
Mr. Shrenik Kolhe, Dr. K. N. Gujar, Dr. S. D. Sawant, Dr. S. B. Bhise & Dr. C. R. Kokare on the occasion of Inauguration of Bravura 2013-14

Dr. K. N. Gujar, Dr. S. B. Bhise, Dr. C.R. Kokare & Prof. H. M. Washimkar at the event of Out of Box during Bravura 2013-14
Dr. Anil Ghate & Dr. K. N. Gujar on the occasion of First Year B.Pharm Welcome Function

Dr. Anil Ghate & Dr. K. N. Gujar on the occasion of M.Pharm Welcome Function
Dr. Lokhande inaugurating Blood Donation Camp held on 30th December 2013

SCOP students & faculty donating blood at Blood Donation Camp
Dr. K. N. Gujar & Mr. Sambhajiraje Thorave at the inauguration of NSS camp at Kolewadi

B. Pharm Students conducting survey of village population

B. Pharm Students carrying out personal sanitation & environment cleaning

B. Pharm Students conducting computer literacy
Dr. K. N. Gujar with Staff and Students at Pharma Rally

Dr. K. N. Gujar, Mrs. Shilpa Chaudhary & Mr. Rewan Karoli on the occasion of inauguration of Oral Paper Presentation Competition, NPW at SCOP

Winners of Oral Paper Presentation Competition with Dr. K. N. Gujar, judges & organizing team
Final year B. Pharm students at T. Walkar’s Pharmaceutical Limited, MIDC area, Pirangut, Pune.
Seminars Organized

FDP

Seminars

Seminars Organized

FDP
Seminars Organized

UoP sponsored National level seminar on “Redefining the role of Bioequivalence studies for quality standards of Generic drugs”

UoP sponsored State level seminar on “Neurological disorders and complimentary alternative medicines : Problems and Prospects”

UoP sponsored State level seminar on “New Pharma policy and DPCO 2013: Challenges to the Community Pharmacists”

AICTE Sponsored FDP on “Research And Practices in Metabolic Disorders: Past Present and Future”

AICTE sponsored International level seminar on “MDR/XDR Tuberculosis A healthcare menace to developing countries”

AICTE Sponsored Seminar on “Problem Based Learning”
Students Achievements

Radhika Bahir (S.Y. B. Pharm) won the lawn tennis (Girls) title in Sinhgad Sports Karandak 2014.

Radhika A. Bahir (S.Y. B. Pharm) has selected for University of Pune, Inter-collegiate lawn tennis matches documents

Gourav Jadhav (F. Y. B. Pharm) has selected in Ice-Hockey Maharashtra Team. And Selected in top 30 players at National Hockey Championship (Mens) at Leh (Jammu and Kashmir)

Ishaan Talwalkar (T.Y. B. Pharm) stood semifinalist in Amonora Cup – 6th Haveli Taluka Badminton Championship 2013.

Ishaan Talwalkar (T.Y. B. Pharm) won the title and gold medal in National level Badminton Championship at BITS Campus,
SCOP Street Play Winning Team receiving prize at the hands of Actress Mandira Bedi
Ashven Seeneevassen (T.Y. B. Pharm) has won the first prize in Symbiosis International Dance Competition.

Ashven Seeneevassen (fourth from right) represented Mauritius dance during his performance at Symbiosis International Dance Competition.
Varada Sulakhe (S.Y. B. Pharm) won the first prize in paper presentation at 7th National Level Science Symposium, Rajkot

Rucha Deo and Mukta Wagh (T. Y. B. Pharm.) won 1st Prize in “VORTEX: Quantity Sufficient” competition held at Institute of Chemical Technology, Mumbai

Kruti Gosalia, Akanksha Sable, Gaurang Thakekar (S. Y. B. Pharm.) won 2nd Prize in “VORTEX: IDP” competition held at Institute of Chemical Technology, Mumbai
Anagha Soundankar (F.Y.B.Pharm) received Lila Poonawala Scholarship for meritorious students (Girls).

Krutu Gosalia, Akanksha Sable, Gaurang Thanekar (S. Y. B. Pharm.) won 2nd Prize in “VORTEX: IDP” competition held at Institute of Chemical Technology, Mumbai.

Charul Avachat and Team stood Runner up in Out of Box (Innovative Advertisement Competition) Bravura 2014.

Onkar Joshi and Team got consolation prize in Logic to Magic (Industrial Troubleshooting Problem) Bravura 2014.
Seenevassen Ajaghen (T.Y. B. Pharm) won the overall first prize in NPW- Oral Paper presentation Competition and also won Overall Runner up prize in NPW- Elocution competition.

Rucha Jogalekar (T.Y. B. Pharm) won the first prize in NPW- Interview skill competition
Nikita Trimbake (in photo) and Rucha Vitonde (T.Y. B. Pharm) won the Runner-up prizes in NPW-Group discussion competition. Nikita Trimbake, (T.Y. B.Pharm) also won the first prize in NPW-Essay competition in UG category.

Moksha Shah (T.Y. B. Pharm) won the first prize in NPW-Drawing competition.

Ramakant M. Narke, Rudra Pratap Singh, Chahtali H. Ved (M. Pharm III Sem) won the runner up award in NPW-poster Presentation in PG category.
Glimpses of Bravura 2013-14
Memories of Internal Gathering
Sinhgad Karandak 2013-14

Pop Singer Edward Maya at the Inauguration of Sinhgad Karandak Neon 2014

Edward Maya during his performance

Felicitation of Renowned Actress Mandira Bedi by Dr. (Mrs.) Sunanda M. Navale at the Prize distribution ceremony of Sinhgad Karandak 2014
Sinhgad College of Pharmacy, Pune-41
Spandan
The Vital Beat...
2013-14

B. Pharm
Toppers

F. Y. B. Pharm

Priya Wadgaonkar 75.75 %
Dhwani Hariharan 71.91 %

S. Y. B. Pharm

Charul Avachat 73.75 %
Sana Malhotra 72.25 %

T. Y. B. Pharm

Aniruddha Girme 74.75 %
Shruti Kumar 72.91 %

Final Year B. Pharm

Akanksha Gupta 71.40 %
Ashwini Ambavkar 70.41 %
M. Pharm Toppers Semester II

Kavita Aare  
61.50 %

Farheen Kapasi  
65.60%

Shrishti Namdev  
73.66 %

Piyush Navadiya  
67.83 %

M. Pharm Toppers Semester IV

Rohan Nangare  
70.85 %

Shilpa Kawade  
70.5%

Pallavi Bhosale  
70.28 %

Pinal Patel  
73.28%
Best Outgoing Student B. Pharm

Academic achievements

1. F.Y.B.Pharm: 73.9%
2. S.Y.B.Pharm: 71.6%
3. T.Y.B.Pharm: 72.8%

MITALI GOKHALE

Publication and Presentation
- Thesis on “To investigate the Wound healing activities of extract of *Foeniculum vulgare Mil.*” under the guidance of Mrs. R.S.Sahane.

Poster Presentation

Awards and Achievements
- Rank holder for F.Y, S.Y and T.Y of B. Pharm.
- GPAT – Qualified (AIR 450)

Extra-curricular Activities
- Student Volunteer for National Service Scheme (N.S.S.) conducted by University of Pune.
- Participant in Sinhgad College of Pharmacy Internal Karandak during academic year 2012-13, in the events Group Dance and Fashion Show.
- Participant in Sinhgad College of Pharmacy Internal Karandak during academic year 2013-14 in the events of Group Dance and Duet Singing.

Others
- Workshop on “Novel Drug Delivery System gifted by Ayurveda (*Taila*: medicated oil)
- Industrial training at Sandoz Pvt. Ltd., Mumbai as a part of T.Y.B.Pharm. course of University of Pune.
- Participated in National Pharmacy Week (Essay writing competition)
- German Language A2 Level Examination of Max-Mueller Bhavan, Pune
Best Outgoing Student B. Pharm

UDDHAV DHOTARE

Academic achievements
1. GPAT (Graduate Pharmacy Aptitude Test) AIR – 729
2. B. Pharm – 69%
3. M.Pharm 1st & IInd Sem – 68%

Poster Presentations:
- Poster presentation at 65th Indian Pharmaceutical Congress held at Amity university, Noida
- Poster presentation at AVISHKAR 2014 on “A New therapy to treat Alzheimer disease”.
- Poster presentation at National conference on environment held at Aurangabad on “Phytoremediation.”
- Poster presentation at BRAVURA 2014 held at Sinhgad college of pharmacy, Pune.
- Presentation on “Chitosan topical gel for wound healing” at Young Innovators Choice Competition held at Institute of Chemical Technology, Mumbai in Oct-13.

Publications
- Published a paper on the topic “PHOTOREMEDIATION” in Environmental Pollution and Life, Educational Publisher and Distributors, 1st Edition, 2011, (I.S.B.N.No. 978-93-80876-02-3), Pg. no. 15-23.
- Review article on “CHALLENGES IN DEVELOPMENT OF FLOATING MICROSPHERE DRUG DELIVERY SYSTEM” is under the process of communication.

Awards and Achievements:
- Secured SEVENTH rank in university of pune in pharmaceutical analysis and TENTH rank in medicinal chemistry, in final year b.pharmacy.
- Selected for Poster competition at university level in AVISHKAR 2014.
- Got selected in Top 500 Ideas in National Youth Challenge Competition conducted by iSEED, Delhi.

Extra-curricular activities:
- Presented poem in “87th AKHIL BHARTIYA MARATHI SAHITYA SAMMELAN” held at saswad, Pune.
- Participated in National Pharmacy Week 2012 “street play competition”, Pune.
- Received first prize for best drama in antarang 2012 at Dr.D.Y.atil ipsr pimpri, Pune.
- Member of sinhgad student council.
- Member of spandan committee Sinhgad College of Pharmacy.
Chronicle

“Reflection of capabilities”

Publications
Presentations
Awards & Achievements

Seminars
Conferences
Guest Lectures
### List of Publication 2013-14

<table>
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<th>Sr. No.</th>
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33. Ms. P. P. Vairagar, Mrs. S. V. Mulgund, Mrs. S. P. Vassa*, Mr. Ratnakar Korhale ‘RP-HPLC Method development and validation for simultaneous estimation of Ramipril and S (-) Amlodipine besylate in Tablet dosage form” *Asian journal of pharmaceutical research and development*, vol.1,issue 4, Pg.No.81-87


47. AvachatAM, Gujar KN, Wagh KV Development and evaluation of tamarind seed xyloglucan-based mucoadhesive buccal films of rizatriptan benzoate Carbohydrate Polymers(Elsevier) 91(2) Jan 2013


49. Amelia M. Avachat, Mandar Bhandwalkar Thermoreversible Nasal In situ Gel of Venlafaxine Hydrochloride...Characterization and Pharmacodynamic Evaluation AAPS Pharm SciTech(Springer) 14 (1) Mar 2013

50. Amelia M. Avachat, Stability indicating method development and validation for simultaneous estimation of Atorvastatin calcium and Celecoxib in bulk and Niosomal formulation by RP-HPLC BJPS (Brazil) Accepted 2014


52. Amelia M. Avachat, Yogesh M. Oswal, Kishor N. Gujar and Rohit D. Shah Preparation and Characterization of rivastigmine loaded human Serum albumin (HAS) nanoparticles Current Drug Delivery (Bentham) 11 (1) Jan 2014

53. Avachat A.M Nandre Dinesh Effect of alcohol on drug release kinetics from HPMC based matrix tablets using model drugs Dissolution technologies(USA) Accepted 2014

54. Amelia M. Avachat, Mukesh Hotkar Preliminary Investigation of Topical Nitroglycerin Formulations Containing Natural Wound Healing Agent in Diabetes Induced Foot Ulcer International wound Journal(Wiley) 2013 Jun 3
### Poster presentations

1) World Congress on Pharmaceutical Sciences and Chemical Technology at Colombo from 16\textsuperscript{th} to 18\textsuperscript{th} of December 2013

<table>
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<th>Sr. No.</th>
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<tbody>
<tr>
<td>1</td>
<td>S. N. Shrotriya</td>
<td>Formulation and Evaluation of Rasagiline Mesylate Buccal Tablet Using Natural Gums And Mucilages</td>
</tr>
<tr>
<td>2</td>
<td>S. V. Mulgund</td>
<td>Separation and characterization of degradation products of Cinitapride Hydrogen Tartarate using LC and LC-MS/MS</td>
</tr>
<tr>
<td>3</td>
<td>Patwardhan, S. K</td>
<td>Role Of Piper Betel As A Penetration Enhancer In Transdermal Gel Formulation</td>
</tr>
<tr>
<td>4</td>
<td>Ranade, A. N</td>
<td>Investigating the possibility of gastro retentive dosage form in delivery of monoammonium glycerrhizin and Aloe vera gel powder for treatment of gastric ulcers.</td>
</tr>
<tr>
<td>5</td>
<td>N. S. Ranpise</td>
<td>Monolithic matrix type transdermal drug delivery of diclofenac sodium using herbal/synthetic penetration enhancer</td>
</tr>
<tr>
<td>6</td>
<td>M. S. Phoujdar</td>
<td>Design, MWI synthesis and evaluation of some pyrazolo [3, 4-d] pyrimidinone derivatives as anticancer agents.</td>
</tr>
</tbody>
</table>

2) 65\textsuperscript{th} Indian Pharmaceutical Congress at AMITY University, Noida Delhi

**20\textsuperscript{th} - 22\textsuperscript{nd} Dec. 2013**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title Of The Project</th>
<th>Name Of The Guide</th>
<th>Name Of The Student</th>
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<tbody>
<tr>
<td></td>
<td><strong>Pharmaceutics</strong></td>
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<tr>
<td>1</td>
<td>Development of Solid Lipid Nanoparticles Enriched Hydrogels for Topical Delivery of Anti-Fungal drug</td>
<td>Ranpise N. S</td>
<td>Kharat, P. M</td>
</tr>
<tr>
<td>2</td>
<td>Monolithic Matrix Type Transdermal Drug Delivery System of Diclofenac Sodium Using Herbal/ Synthetic Penetration Enhancers</td>
<td>Ranpise N. S.,</td>
<td>Singh, R. P.</td>
</tr>
<tr>
<td>3</td>
<td>Enteric coated Pantaprazole Tablets Prepared By Compression Coating Technology</td>
<td>Ranpise N. S.,</td>
<td>Langote, H. P.</td>
</tr>
<tr>
<td>4</td>
<td>Second generation lipid nanoparticles (NLC) as an oral drug carrier for delivery of lercanidipine HCl</td>
<td>Ranpise N. S</td>
<td>Namdeo, S.</td>
</tr>
<tr>
<td>5</td>
<td>Formulation, development and characterization of nanosuspension of poorly drugs.</td>
<td>A. M. Avachat</td>
<td>Sayali Kapure</td>
</tr>
<tr>
<td>6</td>
<td>Formulation ,development of Niosomes as a drug delivery system for prostate cancer</td>
<td>A. M. Avachat</td>
<td>Shrikant Parpani</td>
</tr>
<tr>
<td>7</td>
<td>Enhancement of solubility and bioavailability of olmesartan medoxomil using novel technique</td>
<td>A. M. Avachat</td>
<td>Vivek Mishra</td>
</tr>
</tbody>
</table>
### Pharmaceutical Chemistry

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title Of The Project</th>
<th>Presented by</th>
<th>Name of the Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Characterization of acid degradant of Acenocoumarol using LC and LC-MS</td>
<td>Sugandha Mulgund</td>
<td>Jignesh Shirsath</td>
</tr>
<tr>
<td>9</td>
<td>Specific stability indicating RP-HPLC method development and validation for estimation of acenocoumarol</td>
<td>Sugandha Mulgund</td>
<td>Kuntawar R. D Gawale B. D Kommawar R. S</td>
</tr>
<tr>
<td>10</td>
<td>Synthesis and biological evaluation of azitidinone combrestatins analogs as a antimitotic agents</td>
<td>M. S. Phoujdar</td>
<td>Ajinkya Parlerwar</td>
</tr>
<tr>
<td>11</td>
<td>Synthesis and Evaluation of Pyrazolin (3,4-d) pyrimidine as a anticancer agent</td>
<td>M. S. Phoujdar</td>
<td>Kavita Aare</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title Of The Project</th>
<th>Presented by</th>
<th>Name of the Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LC and LCMSMS Studies for seperation and characterization of degradation products and establishment of degradation pathways of a API</td>
<td>S. V. Mulgund</td>
<td>S. B. Gabhe</td>
</tr>
</tbody>
</table>
### 4) Other Presentations:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the Conference</th>
<th>Presented by</th>
<th>Name of the Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Oral Presentation in National Conference on Advances in Bioanalytical Techniques on “Development and validation of RP-HPLC method for simultaneous determination of Ambroxol Hydrochloride, Guaiphenesin, Loratadine and Sodium Benzoate in Syrup” at Bharati Vidyapeeths Poona College of Pharmacy, Pune on 21/9/2013 to 22/9/2013</td>
<td>Dr. H. K. jain</td>
<td>--</td>
</tr>
<tr>
<td>2</td>
<td>Poster Presentation in National Conference on Advances in Bioanalytical Techniques on “RP-HPLC Method Development, Validation and Forced Degradation Studies for simultaneous estimation of S(-) Amlodipine Besylate and Clopidogrel Bisulphate in Tablets” at Bharati Vidyapeeths Poona College of Pharmacy, Pune on 21/9/2013 to 22/9/2013</td>
<td>Amol Rangale M. Pharm Sem III</td>
<td>Dr. H. K. jain</td>
</tr>
<tr>
<td>3</td>
<td>Poster Presentation in ICON-NANO 2013 International Conference on Surface Science and Nanotechnology, on “Application of factorial design of experiments in preparation and characterization of zolmitriptan loaded chitosan nanoparticles for nose to brain targeting”, at the Ahmedabad, Gujarat, 10th – 12th December, 2013.</td>
<td>Mandlik S. K</td>
<td>Ranpise N. S</td>
</tr>
<tr>
<td>4</td>
<td>Poster Presentation in National Conference on Drug Designing and Discovery, on “Development Of Novel Synthesis Routes To Bioactive Natural Alkaloid Rutacarpine”at Devchand College, Arjunnagar. 6-7 Sept, 2013.</td>
<td>Dr. H. K. jain</td>
<td>Khiste R.H</td>
</tr>
</tbody>
</table>
5) Avishkar

a) Avishkar – (Interuniversity Research Competition): Zonal level 10th December 2013 at Modern College of Arts, Commerce and Science, Ganeshkhind Pune.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title Of The Project</th>
<th>Name Of The Guide</th>
<th>Name Of The Student</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Formulation and Evaluation of Rasagiline Mesylate Buccal Tablet Using Natural Gums And Mucilages</td>
<td>S. N. Shrotriya, K. N. Gujar</td>
<td>Bhakti Chorge</td>
<td>Teacher</td>
</tr>
<tr>
<td>2.</td>
<td>Herbal Bilayer Floating Tablet A New Dimension To The Cure Of Gastric Ulcer</td>
<td>A.N. Ranade</td>
<td>--</td>
<td>Teacher</td>
</tr>
<tr>
<td>3.</td>
<td>A new therapy to treat Alzheimers disease</td>
<td>A.N. Ranade</td>
<td>Udhav Dhotre</td>
<td>PG</td>
</tr>
<tr>
<td>4.</td>
<td>Green Chemical Synthesis and therapeutic evaluation of azetidinone nucleus</td>
<td>M. S. Phoujdar, Ajinkya Parlewar, Sangita Pawar</td>
<td>PG</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Wound healing activity of Lipidium Sativum linn. In experimentally induced Diabetic Rats</td>
<td>Rajkumari Sahane, Prashant Wankhade, Mansee Shrungrapure</td>
<td>PG</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Penetration Enhancer in Gel: Herbal Vs Synthetic</td>
<td>S. K. Patwardhan, Manali Bhide, Ravina Ashtaputre</td>
<td>UG</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Benefits of Foeniculum Vulgare</td>
<td>R. S. Sahane, Chinamay Karmarkar, Mitalee Gokhale</td>
<td>UG</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Pterocarpus marsupium protects Gentamycin induced Kidney failure</td>
<td>Dilpesh Jain, Rucha Deo, Neha Katti</td>
<td>UG</td>
<td></td>
</tr>
</tbody>
</table>
b) Avishkar – : University level  2nd Jan. 2014 at University of Pune

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title Of The Project</th>
<th>Name Of The Participant</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Herbal Bilayer Floating Tablet A New Dimension To The Cure Of Gastric Ulcer</td>
<td>A.N. Ranade</td>
<td>Teacher</td>
</tr>
<tr>
<td>2</td>
<td>A new therapy to treat Alzheimer disease</td>
<td>Udhav Dhotre</td>
<td>PG</td>
</tr>
<tr>
<td>3</td>
<td>Pterocarpus marsupium protects Gentamycin induced Kidney failure</td>
<td>Rucha Deo, Neha Katti</td>
<td>UG</td>
</tr>
</tbody>
</table>

c) Avishkar – : State level 16th to 19th Jan. 2014 at North Maharashtra University, Jalgaon

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title Of The Project</th>
<th>Name Of The Participant</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Herbal Bilayer Floating Tablet A New Dimension To The Cure Of Gastric Ulcer</td>
<td>A.N. Ranade</td>
<td>Teacher</td>
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</table>

Seminar/ Workshops Organised

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title of Seminar/ Workshop</th>
<th>Sponsored By</th>
<th>Date</th>
<th>Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Problem Based Learning</td>
<td>AICTE</td>
<td>10/08/2013 to 11/08/2013</td>
<td>M. A. Nagras</td>
</tr>
<tr>
<td>2.</td>
<td>International level seminar on MDR/XDR Tuberculosis A healthcare menace to developing countries</td>
<td>AICTE</td>
<td>12/08/2013 to 14/08/2013</td>
<td>Dr. K. N. Gujar, Dr. A. M. Avachat</td>
</tr>
<tr>
<td>3.</td>
<td>Two weeks Faculty Development Programme “Research And Practices in Metabolic Disorders: Past Present and Future”</td>
<td>AICTE</td>
<td>15/07/2013 to 27/07/2013</td>
<td>D. P. Jain</td>
</tr>
<tr>
<td>4.</td>
<td>State Level Seminar on “ New Pharma policy and DPCO: Challenges to the community pharmacies”</td>
<td>Uo P</td>
<td>15/2/2014 To 16/2/14</td>
<td>V. M. Gambhire</td>
</tr>
<tr>
<td>5.</td>
<td>State Level Seminar on “ Neurological disorders and complimentary alternative medicines : Problems and Prospects”</td>
<td>Uo P</td>
<td>13/2/2014 To 14/2/14</td>
<td>S. K. Patwardhan</td>
</tr>
</tbody>
</table>
Conferences Attended:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title of the Conference</th>
<th>Venue/ Place</th>
<th>Date</th>
<th>Attended By</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pharmaceutical Innovation</td>
<td>Bharati Vidyapeeths Poona College of Pharmacy, Pune</td>
<td>21/9/13 to 22/9/13</td>
<td>Dr. K. N. Gujar, P. D. Mali</td>
</tr>
<tr>
<td>2</td>
<td>APTI</td>
<td>Vikas Institute of Pharmaceutical Sciences, Rajamundry, Andra Pradesh</td>
<td>25/10/2013 to 27/10/2013</td>
<td>S. V. Mulgund, S. K. Patwardhan, Dr. K. N. Gujar</td>
</tr>
<tr>
<td>3</td>
<td>World Congress on Pharmaceutical Sciences and Chemical Technology</td>
<td>Institute of Chemical Technology, Colombo, Srilanka</td>
<td>16/12/2013 to 18/12/2013</td>
<td>S. V. Mulgund, S. K. Patwardhan, S. N. Shrotriya, A. N. Ranade, M. S. Phouijdar, N. S. Ranpise</td>
</tr>
<tr>
<td>4</td>
<td>ICON-NANO 2013 International Conference on Surface Science and Nanotechnology, on at the.</td>
<td>Dharam sinh Desai University Nadiad, Ahmedabad, Gujrat,</td>
<td>10th – 12th December, 2013</td>
<td>S. K. Mandlik</td>
</tr>
</tbody>
</table>

Seminars/ workshops Attended

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title of the Seminar</th>
<th>Venue/ Place</th>
<th>Date</th>
<th>Attended By</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Faculty Deelopment Programme on “Good Teaching Pactices”</td>
<td>SKN COEP , Kondhawa, Pune</td>
<td>3/7/13 to 11/7/13</td>
<td>Partly by all the Staff Members</td>
</tr>
<tr>
<td>2</td>
<td>Manav Vikas</td>
<td>Yashada , Pune</td>
<td>10/8/2013</td>
<td>H. M. Wahimkar</td>
</tr>
<tr>
<td>3</td>
<td>UoP sponsored Seminar on Credit System</td>
<td>Modern College of Pharmacy, Nigadi, Pune</td>
<td>21/10/2013</td>
<td>Dr. N. S. Ranpise</td>
</tr>
<tr>
<td>4</td>
<td>State level seminar on Flash Chromatography</td>
<td>Poona College of Pharmacy, Pune</td>
<td>25/10/2013</td>
<td>S. P. Vassa, Sandeep Gadve</td>
</tr>
<tr>
<td>5</td>
<td>Workshop for Pharmacognosy Teachers</td>
<td>JSPM , Tathwade, Pune</td>
<td>25/10/2013</td>
<td>K. S. Bodas</td>
</tr>
<tr>
<td>6</td>
<td>National conference on Advances in Bioanalytical Techniques (NCABT-2013)</td>
<td>Poona college of Pharmacy Bharati vidyapeeth Demmed University, Pune</td>
<td>September 21-22, 2013.</td>
<td>H. K. Jain</td>
</tr>
<tr>
<td>7</td>
<td>Buisines opportunities for establishment of manufacturing unit of extracts, oleoresins and esential oils.</td>
<td>MCCIA, at ICC Tower, Pune</td>
<td>24/1/14</td>
<td>K. S. Bodas, S. K. Patwardhan</td>
</tr>
<tr>
<td>8</td>
<td>Uniform teaching –learning process for the subject pharmacognosy</td>
<td>University of pune sponsored workshop at MM College of Pharmacy, Kalewadi, Pune</td>
<td>10th Feb 2014</td>
<td>K. S. Bodas, S. K. Patwardhan</td>
</tr>
</tbody>
</table>
## Awards and achievements:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Particulars</th>
<th>Achieved By</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>“VORTEX” : Quantity Sufficient at ICT, Mumbai</td>
<td>1st Prize : UG team Rucha Deo Mukta Wagh</td>
</tr>
<tr>
<td>2.</td>
<td>“VORTEX” : Immunsia at ICT, Mumbai</td>
<td>1st Prize : UG team Tanvi Visal Neha Katti</td>
</tr>
<tr>
<td>3.</td>
<td>“VORTEX” : Jr. IDP (Industrial Defined Problem) at ICT, Mumbai</td>
<td>2nd Prize : UG team Kruti Gosalia Akanksha Sable Gaurang Thanekar</td>
</tr>
<tr>
<td>4.</td>
<td>Runner up in Out of Box (Innovative Advertisement Competition) Bravura 2014.</td>
<td>Charul Avachat and Team</td>
</tr>
<tr>
<td>5.</td>
<td>Consolation prize in Logic to Magic (Industrial Troubleshooting Problem) Bravura 2014</td>
<td>Onkar Joshi and Team</td>
</tr>
<tr>
<td>7.</td>
<td>Reward from CR Bridge, Online Essay Competition</td>
<td>1st Prize : Harshada langote 2nd Prize : Vivek Mishra 3rd Prize : Pradip Kharat</td>
</tr>
</tbody>
</table>

### 52nd National Pharmacy Week (NPW) 2013

| 11.     | Elocution competition                                                          | Overall Runner up: Seenevassen Ajaghen (T.Y. B.Pharm) |
| 12.     | Interview skill competition                                                   | Winner: Rucha Jogalekar (T.Y. B.Pharm)       |

### Avishkar 2012

| 15.     | Zonal level on 10th December 2013                                            | A. N. Ranade Udhav Dhotre Rucha Deo Neha Katti |
**Guest lectures organized / Courses/Training offered:**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Date</th>
<th>Names of Resource Person</th>
<th>Background Industry/Academic/R&amp;D</th>
<th>Topics Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>16/7/2013</td>
<td>Dr. Prathmesh Kamble</td>
<td>B. J. Medical College</td>
<td>Physiology of Protein Metabolism</td>
</tr>
<tr>
<td>2.</td>
<td>19/7/2013</td>
<td>Dr. Padmakar Pandit</td>
<td>B. J. Medical College</td>
<td>Standard therapy for metabolic disorders</td>
</tr>
<tr>
<td>3.</td>
<td>25/7/2013  to 26/7/2013</td>
<td>Mr. Sunil Kumar</td>
<td>Sybyl X</td>
<td>Training for QSAR software Sybyl X-20</td>
</tr>
<tr>
<td>4.</td>
<td>3/8/2013</td>
<td>Mr. Tushar Deoras</td>
<td>Astute Overseas education Academy</td>
<td>Overseas education</td>
</tr>
<tr>
<td>5.</td>
<td>8/8/2013</td>
<td>Mr. Avinash Deodhar</td>
<td>Byer Healthcare</td>
<td>Management Principle in Pharmaceutical Industry</td>
</tr>
<tr>
<td>6.</td>
<td>1/10/2014</td>
<td>Mr. Tushar Deovas</td>
<td>Astute Overseas education Academy</td>
<td>Overseas education</td>
</tr>
<tr>
<td>7.</td>
<td>10/10/2013</td>
<td>Dr. Dilip Gujar</td>
<td>Aquafine Injecta</td>
<td>Parenteral and Industrial Perspectives</td>
</tr>
<tr>
<td>8.</td>
<td>18/10/2013</td>
<td>Mr. Ashok Gandhe</td>
<td>SKN Sinhgad School of Business Management</td>
<td>CSSD</td>
</tr>
<tr>
<td>9.</td>
<td>29/10/2013</td>
<td>Ms. Lalita Kangude</td>
<td>Sanskar mandir Sansthas Art and Commerce college, Pune</td>
<td>Phonetics</td>
</tr>
<tr>
<td>10.</td>
<td>28/11/2013</td>
<td>Mr. Amit Modgi</td>
<td>Labindia Ltd., Mumbai</td>
<td>Dissolution Testing Validation</td>
</tr>
<tr>
<td>11.</td>
<td>30/12/2013</td>
<td>Pradeep Deshmukh</td>
<td>Intox</td>
<td>Laboratory Animals in Drug Discovery</td>
</tr>
<tr>
<td>12.</td>
<td>15/2/14</td>
<td>Priti Tarkar</td>
<td>Sciformix Technology</td>
<td>Various statistical Test used in Pharmacy</td>
</tr>
<tr>
<td>13.</td>
<td>19/3/14</td>
<td>Prof Anil Dandeekar</td>
<td>Retired Principal, MIT English school</td>
<td>Workshop on Disaster Management</td>
</tr>
<tr>
<td>14.</td>
<td>24/3/14</td>
<td>Parul Khurana</td>
<td>Art of Living teacher</td>
<td>Art of living Course session</td>
</tr>
</tbody>
</table>
51\textsuperscript{st} National Pharmacy Week (NPW) 2012

IPA, Pune Branch along with all Pharmacy institutes from Pune organized various competitions and events for the celebration of National Pharmacy Week, NPW from 23\textsuperscript{rd} November -30\textsuperscript{th} November, 2013. On this occasion SCOP has took a lead to organize Pharma Rally on 30\textsuperscript{th} November, 2013, to initiate the celebration of 52\textsuperscript{nd} National Pharmacy Week NPW 2013.

SCOP has successfully organized the Oral Paper Presentation where more than 45 students from different colleges were participated.

More than 300 SCOP students from UG and PG courses were participated in different NPW events viz, Paper Presentation Competition, Essay Competition, Pharma Ad/Mad-Ad Competition, Quiz Competition, Patient Counseling Competition, Elocution Competition, Poster Competition, Interview Skills Competition, Pharma JAM….extempore Competition, Debate Competition, Pharma Detailing Competition, Group Discussion, Drawing Competition, General Aptitude.

\textbf{Grants sanctioned from AICTE for the academic year 2013-2014}

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Title of the Scheme</th>
<th>Title of the Project</th>
<th>Name of the Coordinator</th>
<th>Grant Sanctioned (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Entrepreneurship and Development Centre (EDC)</td>
<td>Entrepreneurship and Development Centre (EDC)</td>
<td>Dr. A. M. Avachat</td>
<td>5,00,000</td>
</tr>
</tbody>
</table>

\textbf{Grants sanctioned from UOP for the academic year 2013-2014}

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title of the Scheme</th>
<th>Title of the Project</th>
<th>Name of the Coordinator</th>
<th>Grant Sanctioned (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>State Level Seminar</td>
<td>New Pharma policy and DPCO: Challenges to the community pharmacies</td>
<td>V. M. Gambhire</td>
<td>25,000</td>
</tr>
<tr>
<td>2.</td>
<td>State Level Seminar</td>
<td>Neurological disorders and complimentary alternative medicines : Problems and Prospects</td>
<td>S. K. Patwardhan</td>
<td>25,000</td>
</tr>
<tr>
<td>3.</td>
<td>National Level Seminar</td>
<td>Redefining the role of bioequivalence studies for quality standards of generic drugs”</td>
<td>Dr. H. K. Jain</td>
<td>50,000</td>
</tr>
</tbody>
</table>
Research Grants received from University of Pune 2012-13

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the Coordinator</th>
<th>Title of the Project</th>
<th>Grant Sanction (Rs.)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>M. A. Nagras</td>
<td>Design, Synthesis and Evaluation of Some Topoisomerase Inhibitors.</td>
<td>2,30,000</td>
<td>Sanctioned</td>
</tr>
<tr>
<td>2.</td>
<td>R. S. Sahane</td>
<td>“Effect of herbal drug on insulin, glucagon and somatostatin release and modulation in the pharmacological action”</td>
<td>2,50,000</td>
<td>Sanctioned</td>
</tr>
<tr>
<td>3.</td>
<td>S. K. Mandlik</td>
<td>“Application of Quality by Design (QbD) approach in development of biodegradable nanocarriers for drug targeting.”</td>
<td>2,50,000</td>
<td>Sanctioned</td>
</tr>
<tr>
<td>4.</td>
<td>S. K. Patwardhan</td>
<td>“Evaluation of some crude drugs as therapeutic enhancers for synthetic drugs”</td>
<td>2,00,000</td>
<td>Sanctioned</td>
</tr>
</tbody>
</table>

Ongoing Research Projects

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Project Title</th>
<th>Year of Inception</th>
<th>Completion Year</th>
<th>Total Grant Sanctioned (Rs)</th>
<th>Name of Principal Investigator and Co-investigator</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Design and evaluation of Nanometric Novel Drug Delivery System for model antidiabetic Drugs (Glipizide/Repaglinide)</td>
<td>2012</td>
<td>2014</td>
<td>3,00,000</td>
<td>Dr. K. N. Gujar</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2</td>
<td>Biological evaluation of MWI synthesised condensed pyrimidines for specific kinase inhibitory activity</td>
<td>2012</td>
<td>2014</td>
<td>2,95,000</td>
<td>Mrs. M. S. Phoujdar</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3</td>
<td>Formulation and characterisation of pulmonary Targeted Microspheres</td>
<td>2012</td>
<td>2014</td>
<td>3,00,000</td>
<td>Dr. N. S. Ranpise</td>
<td>Ongoing</td>
</tr>
<tr>
<td>4</td>
<td>Solubility and bioavailability enhancement of selected antihypertensive drug using novel pharmaceutical interventions</td>
<td>2012</td>
<td>2014</td>
<td>3,00,000</td>
<td>Dr. A. M. Avachat</td>
<td>Ongoing</td>
</tr>
<tr>
<td>5</td>
<td>Mucoadhesive Buccal Drug Delivery System Using Natural Polymers</td>
<td>2012</td>
<td>2014</td>
<td>2,00,000</td>
<td>Mrs. S. N. Shrotriya</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
Faculty members invited as Resource Person:

1. Guest lecture delivered by Mrs. S. A. Unavane on “Modern Pharmacy” at Tilak Ayurved Mahavidyalaya on 4th and 9th May 2013.

2. Guest lecture delivered by Dr. H. K. Jain on “Drug Delivery System: Preformulation to Industrial Development” in AICTE sponsored Faculty Development Programme at Bansal College of Pharmacy, Bhopal (MP), on 4th June 2013.


4. Lecture delivered by P. M. Jamkar on “Metabolic Disorders” in AICTE sponsored Faculty Development Programme, “Research And Practices in Metabolic Disorders: Past Present and Future” at Sinhgad College of Pharmacy, Pune, on 22nd July 2013.

5. Lecture delivered by Dr. A. M. Avachat on “Bioavailability improvement for some antitubercular drugs” in AICTE sponsored International level seminar “MDR/XDR Tuberculosis A healthcare menace to developing countries” at Sinhgad College of Pharmacy, Pune, on 11th August 2013.


8. Lecture delivered by Dr. K. N. Gujar on “Credit System” in UoP sponsored seminar at Modern college of Pharmacy, Nigadi, Pune on 21/10/13


10. Resource Person in workshop on “Disaster Management” sponsored by Board of student welfare, University of Pune at Sinhgad College of Engineering, Pune on 20th December 2013.

11. P. M. Jamkar as Resource Person in University of Pune sponsored guest lecture series at Sinhgad College of Engineering Pune

12. Lecture delivered by Dr. N. S. Ranpise on “Solid Lipid Nanoparticles” in University of Pune sponsored, three days National Level Seminar, “Advances in Novel Drug Delivery Systems-Present Scenario and Industrial Perspectives” at Modern college of Pharmacy (for Ladies), Moshi on 27 March 2014.
B. Pharm Result 2012-2013

<table>
<thead>
<tr>
<th>Course</th>
<th>Percentage of Passing</th>
<th>Distinction Holders</th>
<th>Rankers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>F. Y. B. Pharm.</td>
<td>84.48%</td>
<td>2</td>
<td>Wadgaonkar Priya</td>
<td>75.75%</td>
</tr>
<tr>
<td>S. Y. B. Pharm.</td>
<td>88.46%</td>
<td>6</td>
<td>Avachat Charul</td>
<td>73.75%</td>
</tr>
<tr>
<td>T. Y. B. Pharm.</td>
<td>100 %</td>
<td>8</td>
<td>Girme Anirudha</td>
<td>74.75%</td>
</tr>
<tr>
<td>Final Y. B. Pharm.</td>
<td>95.38 %</td>
<td>3</td>
<td>Akanksha Gupta</td>
<td>71.40%</td>
</tr>
</tbody>
</table>

Final Year B. Pharm G- PAT Result 2013

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Amey Deshpande</td>
</tr>
<tr>
<td>2.</td>
<td>Ajit Gitte</td>
</tr>
<tr>
<td>3.</td>
<td>Girawale Nitin</td>
</tr>
<tr>
<td>4.</td>
<td>Ashwini Ambavkar</td>
</tr>
<tr>
<td>5.</td>
<td>Prajakta Kapdnis</td>
</tr>
<tr>
<td>6.</td>
<td>Sanika Ranbhor</td>
</tr>
<tr>
<td>7.</td>
<td>Rahul Gorve</td>
</tr>
<tr>
<td>8.</td>
<td>Amol Dixit</td>
</tr>
<tr>
<td>9.</td>
<td>Vidhate Mininath</td>
</tr>
<tr>
<td>10.</td>
<td>Shrikant Gaikwad</td>
</tr>
</tbody>
</table>
Sports

- Sinhgad college of pharmacy, Vadgaon (BK) co-ordinated over all Sinhgad Sports Karandak 2014 smoothly and successfully. Sinhgad Sports Karandak 2014 inaugurated with the hands of Current Coach and Former Ranji Captain Maharashtra state Mr. Surendra Bhave on 26th Dec. 2013. SCOP organized Cricket (girls) event on 13th to 18th Jan 2014 at Vadgaon campus and also coordinated sports prize distribution ceremony smoothly and successfully. Total number of students participated were 107 in different events like Cricket (Boys and Girls), Football, Volleyball, Throw ball, Basketball, table tennis, lawn tennis, running, relay and chess. Students of SCOP participated in 17 events of Sinhgad sports Karandak 2014. Events like-cricket, football, basketball, volleyball, throwball, table tennis, lawn tennis, running, relay and many more.

Student’s achievements in Sinhgad Sports Events:
Student’s achievements in other Sports Events:

- **Radhika Bahir** (S. Y. B. Pharm student) selected for lawn tennis tournament at zonal level University matches.

- **Gaourav Jadhav** (F. Y. B. Pharm student) selected for national championship of Ice-hockey at Ladakh.

- **Ishaan Talwalkar (T.Y. B. Pharm)** won the title and gold medal in National level Badminton Championship at BITS Campus, Goa.

- **Ishaan Talwalkar (T.Y. B. Pharm)** reached in semi final in Amonora Cup – 6th Haveli Taluka Badminton Championship 2013.

Cultural events:

- **Internal cultural Event**

  This year, we organized Internal Cultural Event on 8th of October 2013 wherein students participated very enthusiastically displayed their talent in various events.

- **Sinhgad Cultural Karandak:**

  Sinhgad Cultural Karandak 2014 (NEON), a cultural extravaganza was scheduled from 31st January 2014 to 3rd February 2014. The inauguration was done by the renowned international singer, Edward Maya followed by a live concert at Sinhgad school ground. The students participated wholeheartedly in various events viz. Fashion show, Group dance, Street play, Solo dance and Sinhgad Idol (Solo & Duet). The students practiced every day from 5:30 p.m. till late in the evening. Fashion show was based on the theme of ‘Wings’. Each and every dress was conceptualized, designed and handstitched by the students of SCOP. The backdrops were designed and made by the students. The choreography was set by the students itself. The theme for group dance was based on story of two sisters, one of which was victim of Violence and was saved by another sister. The act was played by the students through their good dancing and acting skills. The theme for street play involved four problems through which our Nation is currently facing. Those included Poverty and suicides of Farmers, Domestic Violence, Donation for the education and corruption related issues. The theme was highly appreciated by the Judges and other participants and won first prize in the Karandak. The students who participated in Solo dance and Sinhgad Idol (Solo & Duet) were performed very well. On the last day prize distribution ceremony was done by renowned film and television actress Ms. Mandira Bedi

  Winners of the competitions were awarded certificates, trophies in the intra-college events. The winners from intercollegiate category bagged cash prizes at the hands of renowned film and television actress Ms. Mandira Bedi in a grand prize distribution ceremony which was held on 3rd Feb 2014.
Achievements of Sinhgad College of Pharmacy Team:

- Winner(1st) in Street Play at Intercampus competitons in Sinhgad karandak on 2nd Feb 2014
- Seeneevassen Ajaghen, T.Y. B. Pharm, from Mauritius won first prize in international cultural dance competition at Symbiosis International University on 26th of January

Blood Donation Camp:

This year the blood donation camp was organized by NSS unit of our college. The camp was conducted in association with SKN Medical College and Hospital, Narhe and was held on 30th Dec. 2013 on the occasion of the Birthday of STES Founder President Prof. M. N. Navale. Students and staff members of Sinhgad College of Pharmacy attended the camp.

The inauguration was done at the hands of Principal Sinhgad College of Engineering, Vadgaon (Bk.), Prof. S. D. Lokhande, held in the presence Dr. K. N. Gujar Principal, Faculty and Students of Sinhgad College of Pharmacy. The total collection of sixty four blood bags was successfully done by the end of the day. Hemoglobin levels of all girl students Checked. Dr. (Mrs.) Harke and her team of doctors from Blood Bank of SKN Medical College and Hospital, Narhe were felicitated for their support in conducting the camp.

NSS Camp

The seven days special camp of NSS has conducted at Kolewadi, Pune. 25 NSS volunteers and advisory committee members were participated in the camp. Inauguration of the Camp was done at the hands of Adv. Sambhajoraje Thorave, “Samajratna” awarded by Govt. of Maharashtra and Dr. K. N. Gujar, Principal Sinhgad College of Pharmacy, Vadgaon in the presence of members of the Kolewadi/Jambhulwadi Gram Panchayat and Villagers.

Speakers discussed the History and Philosophy behind the establishment of NSS in our country and the role of NSS volunteers. After the inauguration, NSS volunteers, coordinator and other staff members spoke to the students of school, teachers and villagers and about the objectives of the camp. Thereafter, volunteers with the help of villagers and school teachers planned and execute the various activities like Cleaning of the school area and survey of the village, Preparation of ground and retaining wall, Tree plantation in the village and school ground, Awareness about media like Television and Movies, Women’s empowerment lecture, Information on Micro credit and Self Help Groups, Computer literacy workshop Games & Competitions for Children and Free eye checkup and free spectacles distribution camp held in collaboration with H. V. Desai Eye Hospital, Hadapsar.
Sinhgad College of Pharmacy Organized Bravura 14. As a part of Sinhgad Karandak a mega sports and cultural events, Sinhgad College of Pharmacy organized Bravura 14 - Pharma tech event. This event was organized by all the Pharmacy colleges of Sinhgad Technical Education Society from 4 to 6 Feb 2014 at vadgaon campus. This was unique opportunity for students to come forward and showcase their talent, creativity and brain power. Yes perfect blend of left and right brain. Sinhgad Technical Education Society (STES) is known for quality education. Ms. Rachana Navle, Vice President Administration STES took the initiative and Dr. K. N. Gujar Principal Sinhgad College of Pharmacy along with Dr S.D Sawan Principal SKN College of Pharmacy, Dr. S.B Bhise, Principal Sinhgad Institute of Pharmaceutical Sciences, and Dr. C.R. kokre Principle Sinhgad Institute of Pharmacy actually executed the innovative idea. Different competitions held during Bravura to exhibit Brilliance were, Out of Box- Innovative advertisement competition, Logic to Magic- Industrial trouble shooting competition, Eureka- Research Project competition and Simulation- 3 D Model making competition. Winners of the competition received cash prize of Rs. 5000 and Runner up of the competitions received cash prize of Rs. 3000. Around 200 students from different Pharmacy institute participated in various events. Sinhgad Institute of Pharmacy won maximum prizes. Apart from wining the most important fact was the team spirit, the excitement and zeal which students demonstrated and made the event a grand success.

### Result of Bravura 2014

<table>
<thead>
<tr>
<th>Name of Event With Day and Date</th>
<th>Winners/ Runners</th>
<th>Name of College</th>
</tr>
</thead>
</table>
| **Out of Box** (Innovative Advertisement Competition) 4<sup>th</sup> Feb 2014, Tuesday | **Winner**: (Team 5) Sweta Purandare, Ganesh Badhe, Abhishekh Deshmukh, Omkar Kolhe, Sumeet Mohalkar, Hitesh Gehlot  
**Runner**: (Team 2) Prachi Atre, Sanjana Tilve, Utkarsha Soundankar, Nikita Trimbake, Charul Avachat, Shreya Zanwar | Sinhgad Institute of Pharmacy, Narhe |
| **Logic to Magic** (Industrial Troubleshooting Problem) 5<sup>th</sup> Feb 2014, Wednesday | **Winner**: (Team 11) Arjit Ray, Sanjana Raul, Guruprasad Posugade, Pamaji Somshetti  
**Runner**: (Team 9) Dharmesh Joshi, Hardik Gandhi, Adarsh Jain | SKN College of Pharmacy, Kondhwa  
DY Patil Institute of pharmaceutical Sciences and Research, Pimpapi |
World Pharmacist’s Day

Sinhgad College of Pharmacy (SCOP), Vadgaon (Bk), Pune, celebrates World Pharmacist’s Day on Sept 25. Principal Dr. K.N.Gujar addressed the gathering about importance of role of Pharmacist in health care profession. On this occasion, Dr. Gujar felicitated Mr. Nitin Deo, CEO, Deo sales Pvt. Ltd & owner of Deo Medicals as well as Dr. Atul Dadhe, Founder, Pivotal Training and Consultancy, who are the potential contributors in field of Pharmacy.

Exersion Tour at Taljai Hill

Sinhgad College of Pharmacy, Vadgaon (Bk), Pune, on occasion of World Pharmacist’s Day, Sept 25, released an information guide “Exploring plant diversity in the region of Taljai forest”. The institute organized a excursion workshop for exploring the plant diversity from region of Taljai forest with their B.Pharm students in 1st week of September 2013. The guide gives details about the actual photographs of about 100 plant species identified during excursion with their scientific information. This excursion workshop was conceptualized by Principal Dr. K.N.Gujar and an initiative was taken by Prof. S.K.Patwardhan, Prof.H.M.Washimkar & Prof. K.S.Bodas from Dept of Pharmacognosy to identify the plants from the forest area and get the information of these identified plants. Botanist Dr.B.G.Kulkarni and
research expert Dr. B.R. Mardhikar contributed for identification of various species of plants. This effort by the college made students get acquainted with plant diversity available in and around the forest area. Everyone found it interesting, knowledge enriching and motivating giving the message “go green” and optimally utilize the medicinal plants for research and development in the area of drug discovery and hence for the benefit of mankind.

**Industrial Visit**

For the current academic year students from Final year B. Pharm of Sinhgad College of Pharmacy have visited T. Walkar’s Pharmaceutical Limited, which is situated near MIDC area at Pirangut, Pune. In total, 56 students and 4 teachers visited this parenteral industry. Students were allowed to see most the facilities excepting filling areas. This visit was very useful for the students which help them to understand all theoretical concepts that come under parenteral formulations. The visit was coordinated by Prof. Sachin A. Wakadkar.

**Environmental Science Study Tour**

Field Visit: For the current academic year a study visit was held on 22nd Feb 2014 at the Mulshi - Tamhini sanctuary to conduct the field work of 10 hrs as prescribed by University of Pune. Dr. Mardikar, Dr. Swapnil Sheth, Mr. P.D.Mali and Mr. H.A.Ranpise with 71 students of S.Y.B.Pharm visited and observed the field. Dr. Mardikar explained details of various plants and herbs growing in the forest of Mulshi. The explanation included various parts, geographical indication and the therapeutic uses of herb.

**The Training and Placement Activity 2013-14**

**For M.Pharm:**

This year campus interview have successfully conducted for Loreal Pharmaceutical Limited for M.pharm 4th Semester students in the month of July-August. One student were placed through campus interview in Loreal Pharmaceutical Limited. Two students are selected for Cognizant technology solution limited, Mumbai. The other companies which are expected for campus interview are Rubicon Pharmaceutical-Research Category, Markets and Markets for business development and Cian Pharmaceuticals limited for Regulatory Affairs.

**For B. Pharm:**

Campus Interviews for B. pharm. final year students have successfully conducted for B.D.International. Total 02 candidates shortlisted for the interview. Among one candidate of Sinhgad College of pharmacy, got selected for the post of Medical Representative. For Cian Pharmaceutical, 18 students appeared for interview and 7 was selected for the post of medical representative.
**Earn and Learn Scheme**
Four students have been selected this year, in the ongoing Univ. of Pune’s K. B. P. Earn and Learn Scheme. These students are working in the Pharmacy section of the Central Library in our campus. This academic year four students, two each of TY and Final year are enrolled under this scheme.

**Student Welfare Scheme**
Miss Soundhankar Anagha of F Y B Pharm was Successful in getting Lila Poonawala Scholarship for Womens Higher Education of amount 40,000 for four years of B. Pharmacy Course.

**Vishesh Margdarshan Yojana**
Total six lectures of two hour duration each were conducted as special coaching classes (one for each subject) for FY B. Pharm students who are economically or socially deprived under Vshesh Margdarshan Yojana.

😊 **************😊
Sinhgad Technical Education Society’s,
**Sinhgad College of Pharmacy**
Sector No. 44/1, Vadgaon (Bk), Off Sinhgad Road,
Pune (M.S.), India- 411041.
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(Ext. 718/719)
Email: scop@sinhgad.edu
URL: www.sinhgad.edu