



SVBCP TIMES

Our Annual Theme : Keeping student's life and career as paramount, meet the needs and interest of each student, and support students' growth, by providing appropriate diverse academic programmes.



Dr. R. Varadarajan
Founder President,
NES-SVB

FROM THE DESK OF THE FOUNDER PRESIDENT

Dear Students,
"We cannot always build the future for our youth, but we can build our youth for the future."
Franklin D. Roosevelt

These words by Franklin D. Roosevelt perfectly describe our aim at SVB's College of Pharmacy. Beyond providing a sound education, we wish to provide our students a holistic learning experience for life. Our aim is to teach students to LEARN, not just STUDY. Hence, we strive to travel beyond the boundaries of mere books. We have realized that the future is abstract and unknown but the youth in our hands are real and can be moulded.

The students and staff of this institution should involve more in the scientific activities at the state and national level. Students should be exposed to new trends in the pharmaceutical development in and outside the country

Dear students, "You are the nation-builders. You are the movers of technology. You are the agents of change." It is our fervent hope that the years that you spend in SVB's College of Pharmacy would enable you to equip with leadership skills.

The knowledge that you will gain, the fine qualities that you will imbibe and the technical skills that you will learn to apply will be your major contribution to your parents, to the society, and to the nation.
We invest our trust on you. You are our safe source and we bank all our efforts on you. We create not the future ,instead we craft you for the future. There are strong challenges to great efforts but, always remember, great effort bears the sweet fruit of success. We want you to taste the fruit of success once and for the rest of your life you will never rest.

I am confident that the teaching staff understand the needs of future and SVBCP would deliver time tested human resource to meet the requirements of Pharmacy profession and society in years to come.

I congratulate the I/C Principal, staff and students for publishing SVBCP TIMES. My good wishes to you and hope that this issue would be meaningful, enjoyable and memorable in achieving its objectives.

Best wishes.
Dr. R. Varadarajan

FROM THE DESK OF I/C PRINCIPAL

It's a matter of pride that Saraswathi Vidya Bhavan and National Education Society has completed 50 glorious years of imparting value rich education. Saraswathi Vidya Bhavan's College of Pharmacy established in the year 1993, is one of the 56 institutions of NES-SVB Group, an outcome of the ambition and efforts put in by Dr. R. Varadarajan. All our institutions are practicing the policy of providing a conducive academic environment for the all-round development of our students to become true professionals. SVBCP is moving ahead with confident and steady steps with the cooperation of each parent, active involvement of our enthusiastic students and staff members, inspiration, guidance and motivation by management. It's my pleasure to express my feelings on the occasion of release of our College third newsletter 'SVBCP TIMES'.

Let us join hands in the endeavour of progress of the College till the goal is reached. I am sure the team must have enjoyed encouraging each other for the third edition. Best wishes to each one of you for the efforts!



Dr. Mrs. Pradnya Palekar - Shanbhag
Principal

Nutraceuticals



Nutraceuticals, the new concept of food with a new function to prevent diseases, was started by the combination of genome science and technology. Nutrigenomics is newly developed methodology combined with multiple genomic techniques and molecular biology technologies. It has been then used as a basic technology that became a driving force for the creation of Nutraceuticals.

For diseases expected to increase in number, but can be prevented by lifestyle change. One of the solutions is to change their diet. Nutraceuticals should contribute to prevention of such diseases.

Nutraceuticals is a scientific area generated from Japan to the world. It can be said that Japan created a brand-new conception of food not only for the improvement of scientific research levels, but also for the improvement of the quality of life.

For Nutraceuticals, there are three key issues of the technology:

(1) Establishment of scientific assessment standard for prevention of diseases,

(2) Establishment of assessment system for disease prevention by human trials and

(3) Establishment of seamless system to transfer stage from basic research to industrialization.

Nutraceuticals are not necessarily a single material, therefore, the expected effect for disease prevention may be activated by a complex action by plural materials.



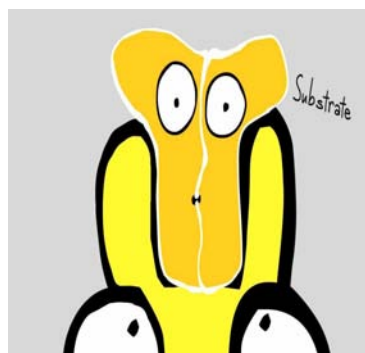
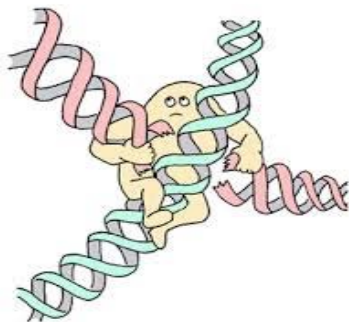
Global food market growth about the Nutraceuticals

INDIAN SCENERIO:

The Indian nutraceuticals market has grown from \$1 billion in 2008 to \$1,820 billion in 2013 and is expected to grow to \$2,731 million in 2016. Dietary supplements were the largest category accounting for 64% of the its market, driven primarily by the pharmaceutical sector in the form of Vitamin and Mineral supplements. It is the wish of all people to live healthy. It is natural that people's focus is shifting from medical treatment for sickness to a positive approach for

prevention of diseases to stay healthy. In order to prevent diseases and be healthy, new food products, which have been proven by the human trials to be effective to prevent diseases, should gradually penetrate into the society. This will improve QOL (quality of life) of all people.

Role of Enzymes



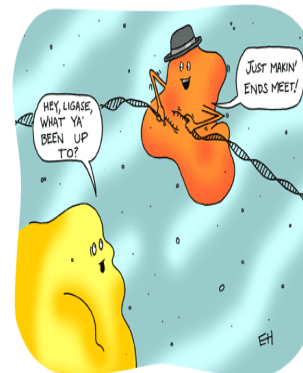
Enzymes are vital proteins within the body that are necessary for all of life's functions. Our Body uses enzymes to carry out virtually every metabolic function. The enzyme-directed approach to bio-reductive drug development uses the principle that selectivity of bio-reductive cancer agents depends also on the level of expression of enzymes catalyzing the reductive activation process.

The Scripps Research Institute have discovered recently a potential enzyme found in nature- **NicA2** from the bacteria "*Pseudomonas putida*" which primarily consumes nicotine and hence possesses the enzyme for nicotine degradation. The researchers have found out that with a few chemical modifications the NicA2 can reduce the half-life of nicotine and keep it from reaching the brain, reducing addiction to smoking.

University of Texas Cancer Centre has found out recently that enzymatic activity of enzyme "fumarase" and its product fumarate are critical elements of DNA damage response and that fumarate deficiency promotes tumor growth due to impairment of DNA repair leading to genetic malfunction that can cause cancer and resistance to therapy. Increasingly, inhibition of fumarase is being looked at for its potential to sensitize cancer cells to chemotherapy or radiotherapy thus leading to new approaches to cancer treatment. The unwanted action of WBC enzyme MMP12 in lungs and arteries of smokers causes the breakdown of elastin leading to inflammation due to loss of elasticity and shape. It has been discovered recently that this enzyme follows a pathway different from the one it was

previously believed to have followed. By studying this newly found pathway, it can be possible to find ways to turn off the enzyme when it's damaging our body.

Thus the role of enzymes is not limited to naturally occurring reactions in the body but is also being explored for treatments of various lifestyle disease conditions.



DOTS

An underlying challenge in TB control has lain in inconsistent surveillance of the long-term treatment of cases. Chronic cases of TB, resulting from poor or interrupted treatment, become a source for deadly drug-resistant strains of tuberculosis. Using well-applied standard therapy, permanent cure rates can reach 85%. However, due to poor adherence to therapy, success rates are typically only about 30%.

DOTS.

It has been proven to prevent the emergence of MDRTB (**Multi-drug-Resistant Tuberculosis**), and also to reverse the incidence of MDRTB where it has emerged. The Revised National Tuberculosis Control Programme (RNTCP) was implemented in 1997 in a phased manner by GOI to ensure that quality of services is maintained. By March 2006, entire country has

been covered under the programme. In the first phase of RNTCP (1998-2005), the programme's focus was on ensuring expansion of quality DOTS services to the entire country. There are many challenges remaining that are to be addressed in order to achieve the TB-related targets set by the Millennium Development Goals for 2015 and to achieve TB control in the longer term.

The RNTCP has now entered its second phase in which the programme aims to firstly consolidate the gains made to date, to widen services both in terms of activities and access, and to sustain the achievements for decades to come in order to achieve ultimate objective of TB control in the country.

All components of new Stop TB Strategy are incorporated by RNTCP include:

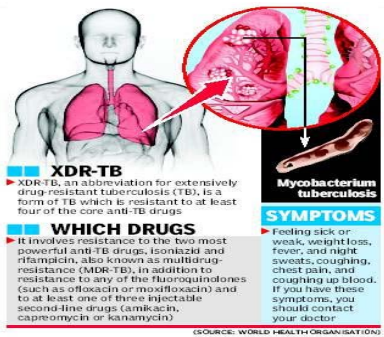
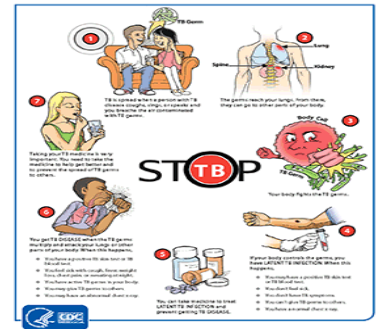
- Pursue quality DOTS expansion and enhancement
- Address TB-HIV, MDR-TB and

other challenges
Contribute to health system strengthening
Involve all health care, to ensure adherence to the International Standards of TB care.

Engage people with TB, and affected communities to demand, and contribute to effective care.

Enable and promote research for the development of new drugs, diagnostic and vaccines.

The Revised National TB Control Programme now aims to widen the scope for providing standardized, good quality treatment and diagnostic services to all TB patients in a patient-friendly environment, recognizing the need to reach to every TB patient in the country, including creating demand for services through specific advocacy, communication and social mobilization activities.



INTELLECTUAL PROPERTY RIGHTS

Intellectual Property Rights (IPRs) have been defined as ideas, inventions and creative expressions on which there is a public willingness to bestow the status of property (David 1993). IPRs provide certain exclusive rights to the creators of IP, in order to enable them to reap commercial benefits from their creative efforts or reputation. The purpose of IPR legislation is to protect against unauthorized imitation, copying or deceptive usage of identifying marks.

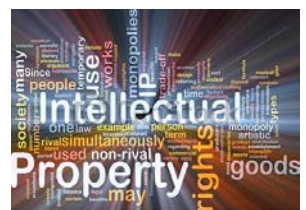
The pharmaceutical industry has relied to a considerable degree on contracting and outsourcing, especially "upstream" in R&D through various licensing. The minimum requirements of TRIPS are not always clearly defined. While

TRIPS has clear provisions on issues such as the minimum time length of protection, the range of subject matter to be protected, non-discriminatory treatment of foreign residents and the enforcement measures that should be implemented, the agreement does not codify rules on more technology-specific and subjective matters, like screening criteria in relation to novelty and inventiveness for patents or detailed definition of infringements to copyrights.

In these complicated and ambiguous definitional areas there may be some scope to change local examination guidelines to suit national economic interests without violating the provisions of TRIPS. American, & European pharmaceutical companies are filling "Evergreen patents",

but in India out of 23,575 pharmaceutical companies only ten are rich enough original research in international level number of patent claims could fall in the "Mail box". Hence IPR in Pharmaceuticals in India is major point of concern as liberalization takes place and the whole world getting an image of "global village".

Pharmacy is a field which orients as a life saving sector, performing needs with better focus and approach in the coming era. Hence at the same time the protection for IPRs seems to be considerably week specifically in pharma sector in India. At this junction we can see both face i.e. pre-IPR scenario and post-IPR scenario to advance beyond being primarily an outsourcing arm to global pharmaceutical industry; Indian companies need to develop their own "upstream" R&D relationships.



FROM THE STUDENT EDITOR

We the students of SVBCP are grateful to the Founder President & the Principal of our institution for giving us the opportunity to create this newsletter & propagate the new ideas that develop in our field of Pharmacy.

Contribution from First Year B-Pharmacy Students (2015-2016)

**Ameya Kukade , Simran Virdi & Group (Neutraceuticals),, Sejal Parekh & Group (DOTS)
Anusha Kamath & Group (Role of Enzymes) , Sudhakar Raiker & Group (IPR).**



**Mast. Saneet Jain (F.Y.B.Pharm)
Editor of newsletter**

