

COALESCE 2015

Dream • Innovate • Create



St. John Institute of Pharmacy and Research

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- Past President of Lions Club of Bhimanagar, Mumbai

Awards & Recognitions

- Rachana Foundation 'Entrepreneur of the Year' Award in 2003
- Papal Award for Printing Entrepreneurship in 2004
- Catholic Entrepreneur of Karnataka State Award in 2007
- Dimensions 'Entrepreneur of the Year' Award in 2012

Mrs. Elvina D'Souza

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- Member - Lions Club, Bhimanagar
- Governing Council Member - Ambedkar Vikas Kendra, Borivli



Mrs. Elaine D'Souza Buthello

Treasurer

- MBA from Xavier's Institute of Management and Research, Mumbai University
- Graduated with distinction in Bachelor of Mass Media, Mumbai University
- Post Graduate in Communication and Journalism, Mumbai University

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Pharmacy, SNDT University, Mumbai

DR. V. S. VELINGKAR

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Prin. K.M.K. College of Pharmacy, Mumbai

MRS. JESSIE VAZ

Ex-Principal
Jamnabai Narsee School, Mumbai

MR. ERROL J. D'SOUZA

Executive Director,
Franco-Indian Pharmaceuticals Pvt. Ltd., Mumbai

DR. (MRS) SAVITA J. TAURO

Principal, St. John Institute of Pharmacy and Research
Member-Secretary

From Editor's Desk

Greetings and a warm welcome! It's indeed a great pleasure to present the fourth issue of "COALESCE 2015", that brings alive multi-faceted activities of our students and faculty at St. John Institute of Pharmacy and Research.

"Coalesce 2015" is a chronicle of the year's events, activities, achievements.

The magazine is an amalgamation of stories, poems, paintings, quizzes and pharma buzz that have been contributed by our very own staff and students.

As quoted by Jackson Brown "Don't say you don't have enough time.

You have exactly the same number of hours per day that were given to Helen Keller, Pasteur, Michaelangelo, Mother Teresea, Leonardo da Vinci, Thomas Jefferson, and Albert Einstein."

We are honored to share the work of so many talented and thoughtful people who have given creative inputs to the magazine despite their busy days.

We have pictured down the memories of the past year that come alive as we turn to photo gallery.

This artistic work is a synergistic product of many master minds.

Coalesce issue has been possible because of a fusion of creativity, handwork, dedication, sacrifice and collaboration of several people that has made this issue so wonderful.

You may want to sit and read the whole thing at once, or come back to this issue several times to digest the articles more slowly.

We wish that this issue of Coalesce will mesmerize you and leave you wanting for more.....



From Principal's Desk

Greetings for a Healthy and Prosperous New Year 2015

It is my privilege to welcome you to the portals of St. John Institute of Pharmacy and Research, a part of the vibrant St. John Technical Campus in the recently inaugurated Palghar District of Maharashtra.


'Coalesce 2015' demonstrates the creativity and talent of the students and faculty at SJIPR. Enthusiastic efforts have been taken to organize fine contents into several unique sections ranging from technical topics to photography. The young artistic minds have also added suitable backdrops to create the ambiance for each reading. Congratulations to the Editorial Team for a wonderful ensemble of innovativeness and expertise.

"To move ahead you need to believe in yourself.... have conviction in your beliefs and the confidence to execute those beliefs." -Adlin Sinclair

As a step towards expansion, St. John Institute of Pharmacy and Research has progressed over the last two years with the addition of Diploma in Pharmacy (2013) and a second division of Bachelor of Pharmacy (2014), thus educating a larger student intake for the amazing opportunities that exist in the growing Pharmaceutical Industry. The state-of-the-art infrastructure provided by the Management and the conscious effort of the faculty has brought laurels to the Institute with ranks at the Final Year B. Pharm. examinations at University of Mumbai. Besides the curriculum, the Institute also provides students with various opportunities to hone their interpersonal, communication and leadership skills through several co-curricular and extra-curricular activities.

SJIPR believes that every student graduating from this campus should be assured of embarking into successful careers by taking ambitious yet tangible decisions. Our efforts will always remain unceasing to train and guide our students aptly as they step into the Global Pharmaceutical Industry.

Dr. Savita J. Tauro
Principal
January 2015



EDITORIAL TEAM

EDITOR



ASSOCIATE EDITORS



ASSISTANT EDITORS



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SJIPR ARCHIVES - 2014

St. John Institute of Pharmacy and Research conducts the four-year full-time Bachelor of Pharmacy and two-year full-time Diploma in Pharmacy courses. With due approvals from the AICTE in June 2014, the intake in B. Pharm. was increased to 100 with the addition of a second division. During the academic year 2014-15, 100 students were admitted to B. Pharm. and 60 to D. Pharm. Career counseling sessions were conducted in several Junior colleges, from Vasai to Bordi and Wada, in the newly inaugurated Palghar District.

The Institute has state-of-the-art facilities with 13 well equipped Laboratories, Sophisticated Instrumentation Lab, Library with over 4000 volumes, 500+ titles, national and international journals and Computer Center.



The academic year commenced with **Induction Programme** for all newly admitted students on campus on Monday, 11th August 2014. The function was presided over by Bro. Jose Valliara, Superior General of the Franciscan Missionary Brothers and Rev. Fr. Lawrence D'Souza, Director, St. John's National Academy of Health Sciences was the Chief Guest. Mr. Adrian Rosario conducted the Induction Programme.

Parents Meet of students admitted to First Year B. Pharm and D. Pharm. was conducted on Saturday, 6th September 2014. Parents were invited for a discussion with the management and faculty regarding the curriculum and the other facilities like Mentoring and Counseling available on campus. They were briefed on various aspects of the course including the pattern of examinations conducted by the University/MSBTE as well as Training & Placement activities.

Guest Lectures were organized to provide students beyond syllabus information.

1. Mr. Vivek Redasani, Asst. Professor, R. C. Patel College of Pharmacy, Shirpur, addressed students on 'Preparedness for GPAT' with special emphasis on the subject of Pharmaceutical Chemistry on Saturday, 15th February 2014.
2. Chairman, Mr. Albert W. D'souza, addressed students of Final Year B. Pharm. on 'Entrepreneurship Skills and Optimum Performance' on Wednesday, 12th March 2014.
3. Mr. Waman Nerurkar, National Head, Sales & Marketing One Source Overseas, addressed students on Education & Opportunities Abroad on 21st July 2014
4. Mrs. Minal Babrekar addressed students of Third and Final Year B. Pharm. on Saturday, 6th September 2014 on the topic of 'ICH Guidelines and Stability Protocols for Different Pharmaceutical Dosage Form'.
5. Chairman, Mr. Albert W. D'souza, addressed students of First Year B. Pharm. on Monday, 15th September 2014 on 'Personality Development'.
6. Mr. Raymond D. D'souza, Passion Preneur Coach, gave a motivational talk to students on how to understand and develop oneself in a competitive environment.



A **Two-Day National Symposium** on "**Recent Trends in Nutraceuticals**" was conducted on 17th & 18th January 2014. The Symposium was partially sponsored by ICMR. Several noted resource faculty, i.e., Mr. Kishore Shintre, Mrs. Priyadarshini Muley-Lotankar, Dr. Vandana Patravale, Dr. Rekha Singhal, Dr. B. V. Vakil, Dr. Priti Amritkar, Mr. Joseph Samuels, Dr. R. B. Smarta, Mr. Benedict Mascarenhas, Mr. M. M. Chitale and Dr. Nilesh Amritkar presented on various topics. The symposium was attended by about 100 delegates from academia and industry.



Science Fest 2014 was organized for the first time at St. John Technical Campus with the theme - 'From Science to Technology'. The aim was to familiarize students of High School and Junior College about the transition from basic science learnt to its applications in technology. Faculty and students participated enthusiastically. Posters, models and experimental set-ups depicting the different departments of Pharmacy were displayed. Approximately 1000 persons visited the stalls.



Students of Final Year B. Pharm. 2013-14 were bid adieu at the **Farewell Program** on Saturday, 5th April 2014. The students were felicitated and wished for successful careers and higher studies by the Management, faculty and their colleagues.

The **Second Convocation Ceremony** of St. John Technical Campus was conducted on Saturday, 15th March 2014 for students who had graduated from the campus in academic year 2012-13. Dr. Stephen D'Silva, Professor, JBIMS, Mumbai was the Chief Guest and His Lordship, Bishop Bosco Penha presided over the function. The Chairman, Aldel Education Trust, Mr. Albert W. D'Souza and Advisor, Dr. S. Krishnamoorthy, along with the other dignitaries congratulated the students and wished them successful careers.



Annual Day was celebrated on Saturday, 11th January 2014 with all other institutions in the St. John Technical Campus. Fr. Felix D'Souza, Director - Joseph Cardijn Technical School was the Chief Guest and Mr. S. P. Gupte, Chief - Cold Rolling Complex (West), TATA Steel Ltd., was the Guest of Honour. Students participated in various cultural events. The college magazine, 'Coalesce 2014' was released as a part of the campus magazine 'Spectrum'.



World Pharmacist Day was celebrated on Thursday, 25th September 2014 together with the Chemists Association of Palghar District. Faculty and students along with Chemists of Palghar participated in a rally to create awareness on 'Safe and Effective use of Medicines' and 'Role of Pharmacists'. Mr. Girish Hukare, Asst. Commissioner (Drugs), Thane, Dr. Munir Chandniwala, Proprietor, Influx Pharmaceuticals, Mr. Anis Shaikh, President CAPD and Mr. Padam Sharma, President - Rotary Club of Palghar participated in the event.



NSS unit sanctioned by University of Mumbai in October, 2014 registered 50 students from S.Y.B.Pharm. Several activities like 'Dengue Awareness' and 'Swachata Abhiyan' were conducted as a part of National Pharmacy Week in November 2014.

Industrial/Hospital Visits and Workshop: Visits to industries and hospitals were conducted for students to give them an exposure to applications of various subjects that are included in the curriculum.

1. Second Year D. Pharm. students visited Dr. M. L. Dhawale Memorial Hospital, Palghar, on Monday, 29th September 2014 and Influx Pharmaceuticals, Palghar, on Monday, 1st December 2014
2. Three-Day Workshop on 'Hands on Training Program in Pharmaceutical Management' at Klenzaid's Institute of Biopharmaceutics, Umbergaon from 10th - 12th December 2014 was conducted for Third Year B. Pharm.
3. Visit to Keshav Shrushti - A Medicinal Plant Garden was organized for students of Third Year B. Pharm. and First Year D. Pharm. on 17th and 20th December 2014 respectively.



Faculty Development Programs are conducted regularly to train faculty in various aspects ranging from Technical Skills to Communication and Teaching-Learning Skills. During the last year several sessions were conducted for all faculty on campus by internal senior faculty as also by invited speakers like Fr. Adolf Furtado and Dr. N. Gilke. Pharminventia, a series of technical sessions presented by faculty of SJIPR was also inaugurated in Saturday 6th September 2014.



Publications:

1. Kamble M. D., Dhokchawle B. V. & Tauro S. J., 'Formulation & Evaluation of Transdermal Drug Delivery System of Atenolol using Chitosan' Indian Drugs, 51 (04), April 2014, 36-41.
2. Bharati D. K., Dhokchawle B. V., Tauro S. J., 'Translational Pharmacology: New Approach of drug Delivery' International Journal of Research in Pharmacology & Pharmacotherapeutics, 3 (2), April-June 2014, 1-7.
3. Bharat Dhokchawle, Gawad J. B. & Tauro S. J., 'Promoieties used in Prodrug Design: A Review', Indian Journal of Pharmaceutical Education & Research, 48 (2), April-June 2014, 35-43.
4. Dhokchawle B. V., Kamble M. K., Tauro S. J., 'Synthesis, Spectral Studies, Hydrolysis Kinetic & Pharmacodynamic profile of Mefenamic Acid prodrug', Scholars Research Library, 6 (3), June 2014, 347-353.
5. Rebello N. L., Bhalerao S. S., 'Study of sunscreen activity of Manilkara zapota (L.) hydro-alcoholic leaf extract and its potentiation using lemongrass oil', Journal Centum, Shri Jagdish Prasad Jhabarmal Tibrewala University, Rajasthan. October 2014.

6. Bawane P.P., Jain M.R., Gawad J.B., Godad A.P., Tauro S.J., 'Evaluation of Polyherbal Extract for In-vitro Antiuro lithiatic Activity Using Bioenhancer', European Journal of Biomedical and Pharmaceutical Science, 1(3) December 2014, 15.
7. Asirvatham S., Tauro S.J., Kamble N., 'Ebola Virus Disease (EVD): A Review', International Journal of Pharmaceutical Research and Bio-Science, 3(6), December 2014, 338-346.
8. Rebello N. L., Bhalerao S. S., 'In vitro photo-toxicity screening of hydroalcoholic extract obtained from manilkara zapota (L.) royen leaves', International Journal of Pharmacy and Pharmaceutical Sciences, 6(11), December 2014
9. Dhokchawle B.V., 'Synthesis and Pharmacological evaluation of Aceclofenac Prodrug', Antiinflammatory and Antiallergic Agents in Medicinal Chemistry. Bentham Science Publication, November 2014, In Press
10. Rebello N. L., Bhalerao S. S., 'Potentiation of Anti-acne activity of hydroalcoholic extract of Manilkara zapota bark against Staphylococcus epidermidis using Lemongrass oil', , Journal Centum, Shri Jagdish Prasad Jhabarmal Tibrewala University, Rajasthan, In Press

Poster Presentations/Conferences Attended:

1. Mrs. Norma Rebello, attended the ISCC - OTAI Conference on 'Current Regulatory Requirements for Cosmetics', 7th March 2014.
2. Mrs. Norma Rebello attended one day International Research Conference on "Emerging Patterns of Innovation in Bussinesses: Challenges and Strategies", organized by Atharva Institute of Management Studies, Malad, Mumbai, conjointly with Shri Jagdish Prasad Jhabarmal Tibrewala University, Rajasthan. July 2014.
3. Mrs. Norma Rebello, Dr. Suhasini Bhalerao, presented a poster, 'Potentiation of Anti-acne activity of hydroalcoholic extract of Manilkara zapota bark against Staphylococcus epidermidis using Lemongrass oil', at one day International Research Conference on "Emerging Trends and Innovations in Science and Engineering Education", organized by ARMIET's Alamuri Ratnamala Institute of Engineering and Technology, Asangaon, conjointly with Shri Jagdish Prasad Jhabarmal Tibrewala University, Rajasthan. September 2014
4. Mr Bharat V. Dhokchawle, Dr Anil Bhandari, Mr Deepak Bharati, Dr Savita Tauro, presented a poster on "Synthesis, hydrolysis kinetics and pharmacological evaluation of aceclofenac prodrugs" at 'Emerging Trends in Chemical and Pharmaceuticals Sciences', CSIR-IICT, Hyderabad, 15-17 October 2014.
5. Ms Vrushali Puranik, Mr Milind Kamble, Dr Savita Tauro, at presented a poster on "Formulation and evaluation of controlled release matrix tablet of lornoxicam" at 'Emerging Trends in Chemical and Pharmaceuticals Sciences', CSIR-IICT, Hyderabad, 15-17 October 2014.
6. Mr. Pradeep Bawane and Mrs. Deepali Nahar attended a three day workshop, "Hands on Pharmaceutical Industrial Management" at Klenzaid Institute of Biopharmaceutics, Umergaon, from 10-12 December 2014.
7. Mr. Prashant Chaturvedi, Mr. Jineetkumar Gawad, Dr. Savita Tauro presented a poster on "A developed and validated stability-indicating RP-HPLC method for determination of Felbinac in the presence of its degradation products as per International Conference on Harmonization Guidelines" at the symposium on 'Structural Elucidation of Bioactive Compounds' at Sinhgad Institute of Pharmaceutical Science, Lonavala from 5-7 Decemeber 2014.
8. Mr. Avinash Barchha and Mr. Bharat Dhokchawle attended symposium on 'Structural Elucidation of Bioactive Compounds' at Sinhgad Institute of Pharmaceutical Science, Lonavala from 5-7 Decemeber 2014.

Research Grants from University of Mumbai:

1. Ms. Aenakshi K. Shah, Asst. Professor, Dept. of Pharmaceutics, "Extraction of Corosolic acid, an anti-diabetic principle, from *Lagerstroemia speciosa* L. and its formulation as sustained release tablets"
2. Mr. Avinash B. Barchha, Asst. Professor, Dept. of Pharmaceutical Chemistry, "Synthesis of Quinolone - Pyrazole templates by hybrid pharmacophore approach and evaluation for anticancer activity".
3. Mr. Angel P. Godad, Asst. Professor, Dept. of Pharmacology, "Neurological activity of Caesium chloride on Zebra fish".

FACULTY PROFILE

BACHELOR OF PHARMACY

DEPARTMENT OF PHARMACEUTICAL CHEMISTRY

1	Dr. (Mrs) Savita J. Tauro	Principal & Professor	M. Pharm. Sc., Ph.D.(Tech)
2	Mr. Bharat V. Dhokchawle	Asst. Professor & HOD	M. Pharm.
3	Mr. Prashant K. Chaturvedi	Asst. Professor	M. Pharm.
4	Mr. Avinash B. Barchha	Asst. Professor	M. Pharm.
5	Mr. Jineetkumar P. Gawad	Lecturer	M. Pharm.
6	Mrs. Deepali M. Nahar	Lecturer	M. Pharm.

DEPARTMENT OF PHARMACEUTICS

7	Mrs. Norma L. Rebello	Asst. Professor	M. Pharm.
8	Mr. Milind D. Kamble	Asst. Professor	M. Pharm.
9	Ms. Aenakshi K. Shah	Asst. Professor	M. Pharm.
10	Mrs. Vrushali N. Gokhale	Asst. Professor	M. Pharm.
11	Mr. Sachin M. Kolhe	Lecturer	M. Pharm.
12	Mrs. Meeta R. Jain	Lecturer	M. Pharm.

DEPARTMENT OF PHARMACOLOGY

13	Mr. Angel P. Godad	Asst. Professor	M. Pharm.
14	Mr. Deepak K. Bharati	Asst. Professor	M. Pharm.
15	Mr. Dnyaneshwar T. Rajgure	Lecturer	M. Pharm.

DEPARTMENT OF PHARMACOGNOSY

16	Mr. Pradeep P. Bawane	Asst. Professor	M. Pharm.
17	Mr. Abhijeet V. Puri	Asst. Professor	M. Pharm.
18	Dr. (Mrs.) Galvina R. Pereira	Lecturer	M. Pharm., Ph.D.

DIPLOMA IN PHARMACY

19	Mrs. Neelam Kamble	Lecturer & HOD	M. Pharm.
20	Mrs. Ekta Patel	Lecturer	B. Pharm.
21	Mr. Chandan Jha	Lecturer	B. Pharm.
22	Mr. Manoj Krishnan	Lecturer	M. Pharm.
23	Mrs. Dipti Chirmade	Lecturer	M. Pharm.
24	Ms. Sahaya Asirvatham	Lecturer	M. Pharm.

NON-TEACHING FACULTY

ADMINISTRATION

1. Mr. Deepak V. Chendvankar	Manager – Administration	B.Com., DBM
2. Mr. Shekar D. Poojari	Accounts Manager	B.Com., LLB
3. Mr. Satishkumar P. Tiwari	Registrar	B.Sc., LLB
4. Sr. Luviza F. D'Souza	Administrator	B.Arts
5. Ms. Mary J. Patole	Jr. Office Executive	B.Com.
6. Mrs. Brinal R. Lopes	Jr. Office Executive	B.Arts
7. Mrs. Rupali S. Rumao	Jr. Office Executive	B.Arts
8. Mr. Pankaj Churi	Jr. Office Executive	B.Arts
9. Mr. Abhishek G. Mestry	Office Attendant	H.S.C.

LIBRARY STAFF

10. Mr. Tukaram Humbe	Asst. Librarian	M.Lib.
11. Mrs. Rosy Ekka	Librarian Attendant	B.Arts
12. Mr. Girish K. Dhuri	Laboratory Attendant	H.S.C.

STORES & LABORATORY

13. Mr. Rais Ahmed M. Ansari	Store Keeper	B.Sc., D. Pharm.
14. Mr. Javed N. Shaikh	Laboratory Assistant	B.Arts, D. Pharm.
15. Mrs. Bhakti A. Patil	Laboratory Assistant	B.Sc.
16. Mr. Yogesh M. Patil	Laboratory Assistant	D. Pharm.
17. Mrs. Shalaka S. Chaudhari	Laboratory Assistant	B.Sc.
18. Mr. Nitish U. Gharat	Laboratory Assistant	B.Sc.
19. Mr. Harshad D. Satpute	Laboratory Assistant	Diploma in Comp. Engg.
20. Mrs. Shrutika D. Vaidya	Laboratory Assistant	B.Sc.
21. Mr. Devji P. Chavan	Laboratory Attendant	S.S.C.
22. Mr. Kishore S. Angre	Laboratory Attendant	S.S.C.
23. Mr. Sudesh T. Gavankar	Laboratory Attendant	S.S.C.
24. Mr. Sunil N. Kom	Laboratory Attendant	S.S.C.
25. Mr. Pascol J. D'souza	Laboratory Attendant	S.S.C.
26. Mr. Sagar Karbat	Lab / Office Attendant	S.S.C.
27. Mr. Krishna Tamore	Lab / Office Attendant	S.S.C.
28. Ms. Shubhangi Karbat	Lab / Office Attendant	H.S.C.
29. Mr. Deepak Waghchaure	Lab / Office Attendant	H.S.C.



Student Council
2014 - 15

General Secretary



Mr. Maxwell Mascarenhas
(Final Year B. Pharm.)

Cultural Secretary



Ms. Abna Sreedhar
(Third Year B. Pharm.)

Sports Secretary



Mr. Alston D. Mendes
(Third Year B. Pharm.)

CLASS REPRESENTATIVE



Mr. Dinesh Mehta
(F. Y. B. Pharm. Div-A)



Ms. Shrishti Singh
(F. Y. B. Pharm. Div-B)



Ms. Zeba Dhada
(S. Y. B. Pharm.)



Mr. Mahavir Jain
(T. Y. B. Pharm.)



Mr. Amir Tailor
(Final Y. B. Pharm.)



Ms. Chandrika Patel
(F. Y. D. Pharm.)



Ms. Yuga Puranik
(S. Y. D. Pharm.)

Academic Awards & Honors

Bachelor of Pharmacy

T. Y. B Pharm



Chinmayee Samant
74.30%



Suresh Choudhary
73.80%



Stephanie D'Souza
70.80%



Krishnakumar Yadav
86.60%



Uma Musale
81.50%



Krutika Bhoir
81.30%

S. Y. B Pharm

F. Y. B Pharm



Mugdha Raut
GPA-8.86



Vijay Chaudhari
GPA-7.84



Maureen Crasto
GPA-7.80



Sadhana Santra
GPA-8.58



Treesa Chittilapilly
GPA-8.19



Steffi Augustine
GPA-7.73

Diploma in Pharmacy - F. Y.



Shaista Shaikh
71.45%



Snehal Jain
69.91%



Aafreen Shaikh
69.64%

MS. CHINMAYEE SAMANT

IELTS SCORE BAND 7
Applied to Macquire/Deakin University
For Masters in Radio
Pharmaceuticals and Biotechnology



I really miss the four years spent in SJIPR. The time spent in SJIPR helped me to grow as an individual instead of just being a college student. I still remember the first day in SJIPR when i was nervous but the college staff has been supportive and encouraging throughout. The college has experienced tremendous changes in infrastructure, laboratories, library and also encouraged all students in various co and extra curricular activites. I am thankful to all my teachers and entire staff of SJIPR for making me a part of this lush green and innovative campus.

MS. DISHA PARKER

TJDA (Trainee Junior Data Analyst)
Non-Voice Process in PV
Cognizant Technology Solutions
Airoli



Whenever I think of my college days, it brings back so many memories. SJIPR was a perfect place to foster our learning phase. My sincere gratitude towards my Teachers who did their best to instill in us a passion for learning, to the Non-Teaching staff, on whom we were always dependent and to all who made our college experiences amazing. Last but not the least to all my friends who were there for study sessions, enjoyment etc. After all Remembrance is easy, to Forget, that's hard.

MS. SHRUTHI GEORGE

M. Pharm. (Pharmacology)
Dr. Bhanuben Nanavati College
of Pharmacy, Mumbai



Everyone has that phase in life that we all wish would stay with us forever! Those four years in SJIPR laid the perfect foundation for me to seize my dream. The faculty, management and all my peers have had a great influence in developing my skills, both professionally and on a personal level. The wonderful relationships I built with my lecturers and friends have made a better person that I am today. I absolutely cherish those moments and the wonderful experiences I've had at SJIPR, but unfortunately I can re-live them only in my memories.

MS. MRUNALI MHATRE

MBA - Pharmaceutical
Industry Management
D. Y. Patil University School
of Management



I take this opportunity to express my sincere gratitude towards SJIPR right from the Principal, Teachers and Non-Teaching Staff. From my first day in this institute I have seen SJIPR flourishing from a sapling to a huge evergreen tree. SJIPR was not only an educational institute that taught me pharmacy, but it was my second home where I was nurtured to become a good human being. I will always owe my success to this institute and my beloved teachers for their sincere efforts. God bless my whole SJIPR family. I wish this institute grows by leaps and bounds.

MR. ROJI KOSHY CHANDY

M.Pharm. (Regulatory Affairs and Pharmaceutical Management)
K.B.I.P.E.R (Kalapur Bank Institute of Pharmacy Education and Research), Gandhi Nagar, Gujarat



Our destiny sowed us like seeds into a fertile field known as SJIPR and in this 4 years we all have transformed into a plant that can withstand unfavourable condition and will be fruitful throughout life. SJIPR provides a platform for students to explore beyond academics. Here I got opportunities to grow up as a multi- tasking person and inculcated a decision making ability in me. I believe that students from this college are accomplishing the mission of this college i.e. "Serving to Educate, Educating to Serve" and SJIPR has gifted me memories to cherish throughout my life.

MR. SHEBAZ S. SHAIKH

M.Pharm. (Pharmaceutical Analysis)
Prin. K. M. Kundnani College of Pharmacy, Mumbai



I thank my professors, staff, and colleagues at SJIPR for all the support and guidance without which my quest for knowledge related to pharmacy would not have been fulfilled. Right from analyzing blood samples to making elegant cosmetic products, these four years have been an extraordinary learning experience. I feel obliged and honored to have been a part of the St. John family, where knowledge and values form our strong career foundation. I owe this to every mentor who enlightened my path during years of graduation and my juniors who made this four year journey special with their love and support.

MR. HERAMBH SAKPAL

Fountil Life Science Pvt. Ltd
Medical Marketing Associate
Mumbai



With zero knowledge of pharmacy I entered St. John, but along the journey I was like reincarnated as a person in St. John with knowledge and inculcated professional values, everyday was like a new lesson to me. I owe a big thank you to all my teachers and non- teaching staff and also to all my seniors and juniors who taught me many things throughout this journey. It is rightly said that college days are best days of life, today I miss the hustle bustle in corridors during events, the energizing cheers during sports. Wishing success to all my St. Johnites.

MR. SURESH CHOUDHARY

IELTS SCORE BAND 7
Applied to Macquire/Deakin University
For Masters in Radio
Pharmaceuticals and Biotechnology



Firstly, I thank SJIPR for giving me a chance to be a part of this alumni. After a gap of 13 years in education, it was difficult to complete professional course of pharmacy. But the teachers had been supportive throughout the curriculum and i never found it difficult to undergo the learning process. I thank all my teachers for their support and cooperation and entire staff for making me a part of this campus.



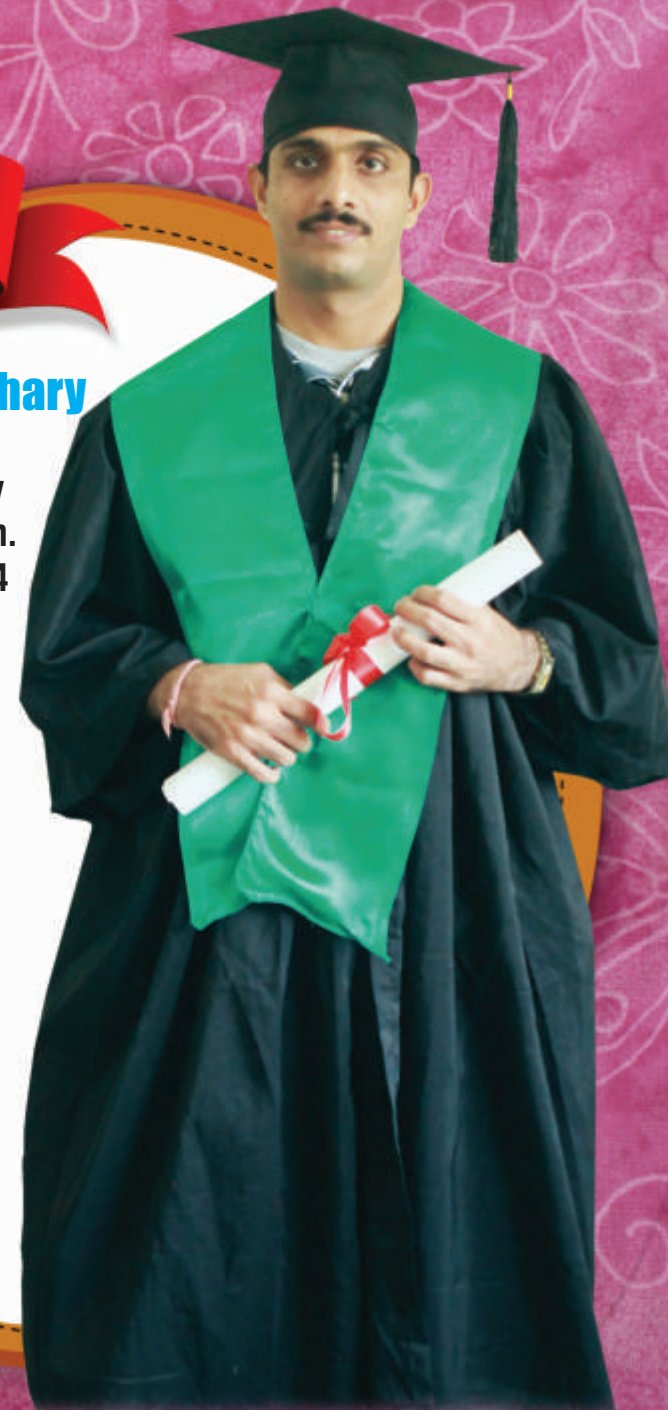
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TECHNOMANIA



BRAIN TUMOR - TARGETED DRUG DELIVERY STRATEGIES

Despite surgery, radiotherapy and chemotherapy, brain tumors are still a difficult health challenge due to their fast development and poor prognosis. Brain tumor- targeted drug delivery systems, increase drug accumulation in the tumor region and reduce toxicity in normal brain and peripheral tissue, and are a promising new approach to brain tumor treatment. Since brain tumors exhibit many distinctive characteristics relative to tumors growing in peripheral tissues, potential targets based on continuously changing vascular characteristics and the micro environment can be utilized to facilitate effective brain tumor-targeted drug delivery.

Barriers to targeted drug delivery strategies -

The oncogenesis of gliomas is complicated, with various barriers preventing drug from reaching the tumor sites. There are three main barriers for brain tumor treatment: the Blood-Brain Barrier (BBB), the Blood-Brain Tumor Barrier (BBTB), and a relatively weak EPR (Enhanced Permeability and Retention) effect.

1) BBB targeting strategies and related drug delivery systems - The BBB is a specialized system of capillary endothelial cells which are partially covered by pericytes and basement membrane, and almost fully surrounded by the end-feet of astrocytes, preventing approximately 98% of the small molecules and nearly 100% of large molecules including recombinant proteins and genes from being transported into the brain and reaching the tumor sites. The BBB strictly limits drug transport into the brain by serving as a physical (tight junctions), metabolic (enzymes) and immunological barrier. To tackle this challenge, many kinds of active targeting strategies were adopted for developing effective drug delivery systems to the brain. They are mainly divided into absorptive-mediated transcytosis (AMT), transporter-mediated transcytosis, and receptor-mediated endocytosis (RMT).

A) Absorptive Mediated Transcytosis - It provides a means for the delivery of drugs across the BBB by cationic proteins or cell-penetrating peptides (CPPs). It is triggered by electrostatic interactions between the positively charged moieties of the proteins and negatively charged membrane surface regions on the brain endothelial cells. Typical cationic bovine serum albumin-conjugated (BSA-NP), pegylated nanoparticles (CBSA-NP) were used for brain targeting. They demonstrated that the permeability of CBSA-NP was about 7.76 times higher than that of BSA-NP, which offered the possibility of delivering therapeutic agents to CNS.

B) Transporter Mediated Transcytosis - It takes advantage of the transport systems as a promising brain targeting strategy. It is substrate-selective, so only drugs that closely mimic the endogenous substrates will be taken up and transported into the brain. Glucose transporters (GLUT), which facilitate the transport of glucose from the blood to the brain, have a broad prospective use in brain targeting. Liposomes that incorporate a mannose

derivative cross the BBB via the glucose transporter GLUT1 in mouse brain. Another important transport system is the choline transporter which binds positively charged quaternary ammonium groups or simple cations.

C) Receptor Mediated Transcytosis - It is the most mature strategy for brain targeted drug delivery with the characteristics of high specificity, selectivity and affinity, although the ligand may have an effect on homeostasis and natural ligands may compete with the drug ligand to reduce targeting efficiency. One of the most widely characterized receptor-mediated transcytosis systems for brain targeting is the transferrin receptor (TfR), which is highly expressed as one of the endothelial cells of the BBB. A transferrin-modified paclitaxel-loaded polyphosphoester hybrid micelle (TPM) was prepared and *in vitro* and *in vivo* brain-targeting efficiencies were re-evaluated. TPM exhibited stronger anti-glioma activity. The low-density lipoprotein (LDL) receptor-related protein (LRP), has been reported to mediate transport of various ligands conjugated to nano carriers across the BBB.

2) BBTB targeting strategies and related drug delivery systems - It is similar to BBB, located between brain tumor tissues and microvessels formed by highly specialized endothelial cells (ECs), limiting the paracellular delivery of most hydrophilic molecules to tumor tissue. Only when the tumor cell clusters grow to a certain volume will BBB be damaged and BBTB be formed. Over expression of the epidermal growth factor receptor (EGFR) on the BBTB makes it a promising target for therapy. EGF and anti-EGFR monoclonal antibody are the commonly used EGFR ligands mediating glioma-targeted therapy. Daunorubicin derivative is transported into cancer cells using this method.

3) EPR effect - based strategies and related drug delivery systems - It is the property by which certain sizes of molecules (typically liposomes, nanoparticles, and macromolecular drugs) tend to accumulate in tumor tissue much more than they do in normal tissues. Some of the nano scale drug delivery systems have been developed to make use of the glioma EPR effect for tumor targeting. Research on "Systematic Targeted Drug Delivery" is a promising approach to the treatment of brain tumors. It will help to fill in the gaps that remain in fully understanding the relationship between the physiological and pathological conditions of brain tumors, providing a basis for various targeted delivery systems.

Reference: www.sciencedaily.com



Steffi P. T.Y.B.Pharm.

NUTRACEUTICALS AS POTENTIAL THERAPEUTIC AGENTS FOR COLON CANCER : A REVIEW

Colon cancer is a world-wide health problem and the second-most dangerous type of cancer, affecting both men and women. The modern diet and lifestyles, with high meat consumption and excessive alcohol use, along with limited physical activity have led to an increasing mortality rate for colon cancer worldwide. As a result, there is a need to develop novel and environmentally benign drug therapies for colon cancer. Currently, nutraceuticals play an increasingly important role in the treatment of various chronic diseases such as colon cancer, diabetes and Alzheimer's disease.

So far, 5-fluorouracil (5-FU) is the first choice for colon cancer treatment, acting as an inhibitor of DNA synthesis^{1,2}. However, while synthetic chemical anticancer drugs prolong survival, they often have adverse effects and off-target actions. Based on this, nutraceuticals and phytochemicals have been investigated for colon cancer therapeutics. Nutraceuticals have the ability to control the DNA damaging factors in cancer cells and regulate DNA transcription in tumors. The different stages of colon cancer warrant various treatment options such as chemotherapy, surgery, radiation and phytotherapy. Nutraceutical compounds have provided better treatment and showed fewer adverse effects. Reactive oxygen species can cause problems in normal cells. Free radicals such as $O^{\cdot -}$ and OH^{\cdot} may increase normal human

colonocyte activity and result in the formation of colon polyps. Natural antioxidants such as quercetin are derived from fruits and plant resources and can limit the oxidative damage in colon cells. Quercetin belongs to a family of plant-derived flavonoid phytochemicals and is effective for inducing apoptosis in colon cancer cells. Likewise, dietary uses of onion might be able to suppress the proliferation of normal cells. Onion contains high levels of quercetin, which inhibits the effects of colon cancer proliferation in both *in vitro* and *in vivo* studies. Lentinan naturally occurs in the edible mushroom *Lentinus edodes*. The lentinan compound is known as β -1, 3-glucan. It is one of the important drugs used as anticancer agents and is used clinically for colon cancer treatment. Lentinan significantly reduces the formation of colon tumours in an animal model. Selenium is an important dietary mineral found in broccoli extract, red wine, dietary fiber, pepper, soya, cloves, fenugreek, ginger, apple and other vegetables. Selenium is associated with up to a 50% decrease in the risk for colon



cancer. Yellow mustard oil is synthesized by the Brassica family of plants and has been examined for its potential anticancer properties. Mustard contains a complex mixture of long-chain polysaccharides that may play a protective role in colon cancer formation. Essential oils such as eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA) and omega-3 fatty acids are also used to treat and prevent cancer and cardiac diseases. Particularly, the consumption of fish and fish products reduces the risk of colon cancer progression. Recently developed live micro-organisms such as probiotics are also important dietary supplements for humans. Probiotics balance the mix of intestinal microbes and have beneficial effects on the human digestive system.

Future Prospective:-

The finger prints of phytochemical compounds, especially nutraceuticals, are well established for the treatment of colon cancer. Dietary phytochemicals are widely used as pharmaceuticals beneficial for human health and other commercial products. However, the mechanisms of action of nutritional databases need further development and better molecular identification in colon cancer treatment. Research has proven that the high intake of nutraceutical is beneficial in the control of colon cancer generation. Finally, it should be recognized that single or clustered dietary

nutraceuticals molecules are contributing to therapeutic action and will be important for future assessment.

Reference :- Acta Pharmaceutica Sinica B, Volume 4, Issue 3, June 2014, Pages 173-181



Purva S. T.Y.B.Pharm.

TUBERCULOSIS: NEW WAYS TO FIGHT

Multi-drug-resistant tuberculosis (MDR-TB) is defined as tuberculosis that is resistant to at least isoniazid (INH) and rifampicin (RMP), the two most powerful first-line treatment anti-TB drugs.

Community-based treatment programs such as DOTS-Plus, an MDR-TB-specialized treatment using the popular Directly Observed Therapy - Short Course (DOTS) initiative, have shown considerable success in the treatment of MDR-TB in some parts of the world. However, TB clinicians have expressed concern in the DOTS program administered because the system depends on patients coming to health care providers and also this form of implementation does not suit all cultural structures. They urge that the DOTS protocol be constantly reformed in the context of local practices, forms of knowledge and everyday life.

Quinoline: A promising antitubercular target.

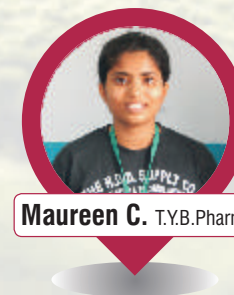
Tuberculosis (TB) remains a global public health problem in recent years. TB originated mainly from various strains of *Mycobacterium tuberculosis*, is a highly infectious and chronic disease with high infection rate since ancient times. For the last 50 years, the same long-duration, multidrug treatment plan is being followed for the treatment of tuberculosis. Due to the development of resistance to conventional antibiotics there is a need for new therapeutic strategies to combat *M. tuberculosis*. Subsequently, there is an urgent need for the development of new drug molecules with newer targets and with an alternative mechanism of action. Among heterocyclic compounds, quinoline compounds are important privileged structures in medicinal chemistry, and are widely used as "parental" compounds to synthesize molecules with medical benefits, especially with anti-malarial and anti-microbial activities. Certain, quinoline-based compounds, also show effective anti-TB activity. This broad spectrum of biological and biochemical activities has been further facilitated by the synthetic versatility of quinoline, which allows the generation of a large number of structurally diverse derivatives. To pave the way for future research, there is a need to collect the latest information in this promising area. In the present review, we have collated published reports on this versatile core to provide an insight so that its full therapeutic potential can be utilized for the

treatment of tuberculosis. It is hoped that, this review will be helpful for new thoughts in the quest for rational designs of more active and less toxic quinoline-based anti-TB drugs.

The cyclic peptide ecumicin targeting ClpC1 is active against *Mycobacterium tuberculosis in vivo*.

Drug-resistant TB has lent urgency to finding new drug leads with novel modes of action. A high-throughput screening campaign of more than 65,000 actinomycetes extracts for inhibition of *Mycobacterium tuberculosis* viability, identified ecumicin, a macrocyclic tridecapeptide that exerts potent, selective bactericidal activity against *M. tuberculosis in vitro*, including non-replicating cells. Ecumicin is equally active against drug-resistant *M. tuberculosis* including clinically isolated MDR- and XDR-strains. Subcutaneous administration to mice of ecumicin in a micellar formulation at 20 mg/kg resulted in plasma and lung exposures exceeding the MIC. Complete inhibition of *M. tuberculosis* growth in the lungs of mice was achieved following 12 doses at 20 or 32 mg/kg. Genome mining of lab-generated, spontaneous ecumicin-resistant *M. tuberculosis* identified the ClpC1 ATPase complex as the putative target, and this was confirmed by a drug affinity response test. ClpC1 functions in protein breakdown with the ClpP1P2 protease complex. Ecumicin markedly enhanced the ATPase activity of WT ClpC1, but prevented activation of proteolysis by ClpC1. Less stimulation was observed with ClpC1 from ecumicin-resistant mutants. Thus ClpC1 is a valid drug target against *M. tuberculosis*, and ecumicin may serve as a lead compound for anti-TB drug development.

Reference: US National Library of Medicine and National Institutes of Health.



WHAT'S NEW AND BENEFICIAL ABOUT APPLES

The phytonutrients in apples can help you regulate your blood sugar. Recent research has shown that apple polyphenols can help prevent spikes in blood sugar through a variety of mechanisms. Flavonoids like quercetin found in apples can inhibit enzymes like alpha-amylase and alpha-glucosidase. Since these enzymes are involved in the breakdown of complex carbohydrates into simple sugars, your blood sugar has fewer simple sugars to deal with when these enzymes are inhibited. In addition, the polyphenols in apple have been shown to lessen absorption of glucose from the digestive tract, to stimulate the beta cells of the pancreas to secrete insulin; and to increase uptake of glucose from the blood via stimulation of insulin receptors. All of these mechanisms triggered by apple polyphenols can make it easier for you to regulate your blood sugar. Even though apple is not an excellent source of dietary fiber (it ranks as a "good" source in our WHFoods Rating System), the fiber found in apple may combine with other apple nutrients to provide you with the kind of health benefits you would ordinarily only associate with much higher amounts of dietary fiber. These health benefits are particularly important in prevention of heart disease through healthy regulation of blood fat levels. Recent research has shown that intake of apples in their whole food form can significantly lower many of our blood fats. The fat-lowering effects of apple have traditionally been associated with its soluble fiber content, and in particular, with the soluble fiber portion of its polysaccharide component known as pectins. What we now know, however, is that whole apples only contain approximately 2-3 grams of fiber per 3.5 ounces, and that pectins account for less than 50% of this total fiber. Nevertheless, this relatively modest amount of pectins found in whole apples has now been shown to interact with other apple phytonutrients to give us the kind of blood fat lowering effects that would typically be associated with much higher amounts of soluble fiber intake. In recent comparisons with laboratory animals, the blood fat lowering effects of whole apple were shown to be greatly reduced when whole apples were eliminated from the diet and replaced by pectins alone. In summary, it's not fiber alone that explains the cardiovascular benefits of apple, but the interaction of fiber with other phytonutrients in this wonderful fruit. If you want the full cardiovascular benefits of apples, it's the whole food form that you'll want to choose. Only this form can provide you with that unique fiber-plus-

phytonutrient combinations. The whole food form of apples is also important if you want full satisfaction from eating them. Researchers have recently compared intake of whole apples to intake of apple sauce and apple juice, only to discover that people report less hunger (and better satiety, or food satisfaction) after eating whole apples than after eating apple sauce or drinking apple juice. But especially interesting was an additional finding about calorie intake following apple consumption. When healthy adults consumed one medium sized apple approximately 15 minutes before a meal, their caloric intake at that meal decreased by an average of 15%. Since meals in this study averaged 1,240 calories, a reduction of 15% meant a reduction of 186 calories, or about 60 more calories than contained in a medium apple. For these researchers, "getting ahead" in calories with a net reduction of 60 calories was a welcomed outcome of the study, and an extra benefit to their study's primary conclusion-the importance of whole apples (versus other more processed apple forms) in helping us manage our hunger and feeling more satisfied with our food. Scientists have recently shown that important health benefits of apples may stem from their impact on bacteria in the digestive tract. In studies on laboratory animals, intake of apples is now known to significantly alter amounts of two bacteria (Clostridiales and Bacteriodes) in the large intestine. As a result of these bacterial changes, metabolism in the large intestine is also changed, and many of these changes appear to provide health benefits. For example, due to bacterial changes in the large intestine, there appears to be more fuel available to the large intestine cells (in the form of butyric acid) after apple is consumed. We expect to see future studies confirming these results in humans, and we are excited to think about potential health benefits of apple that will be related to its impact on bacterial balance in our digestive tract.



Revathi M. T.Y.B.Pharm.

EBOLA - THE OUTBREAK

Ebola virus disease (EVD), Ebola hemorrhagic fever (EHF) or simply Ebola is a disease of humans and other mammals caused by an ebolavirus.

Signs and Symptoms:

Signs and symptoms of Ebola Virus Disease (EVD) usually begin suddenly with an influenza-like stage characterized by fatigue, fever, headaches, and pain in the joints, muscles, and abdomen. Vomiting, diarrhea, and loss of appetite are also common. Less common symptoms include the following: sore throat, chest pain, hiccups, shortness of breath, and trouble swallowing. The average time between contracting the infection and the start of symptoms (incubation period) is 8 to 10 days.

Transmission:

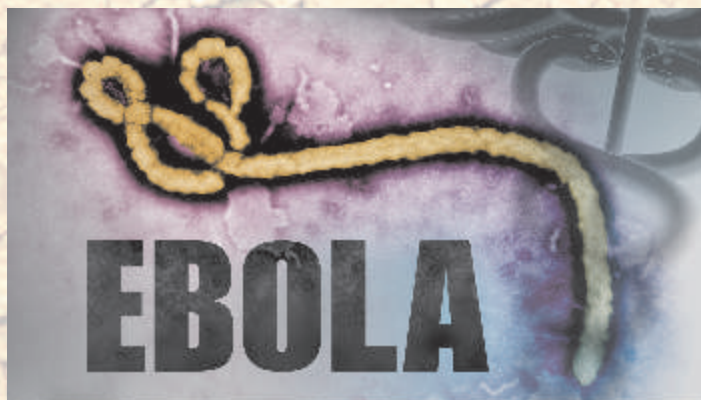
Ebola virus is caused by four of five viruses classified in the genus *Ebolavirus*, family *Filoviridae*, order *Mononegavirales*. The four disease-causing viruses are *Bundibugyo virus* (BDBV), *Sudan virus* (SUDV), *Tai Forest virus* (TAFV), and one called, simply, *Ebola virus* (EBOV, formerly Zaire Ebola virus). Ebola virus is the only member of the *Zaire ebolavirus* species and the most dangerous of the known EVD-causing viruses. The fifth virus, Reston virus (RESTV), is not thought to be disease-causing in humans. Human-to-human transmission occurs only via direct contact with blood or body fluid from an infected person (including embalming of an infected dead body), or by contact with objects contaminated by the virus, particularly needles and syringes. Other body fluids that may transmit ebolavirus include saliva, mucus, vomit, feces, sweat, tears, breast milk, urine, and semen. Entry points include the nose, mouth, eyes, or open wounds, cuts and abrasions

Genome:

Like all mononegaviruses, ebolavirions contain linear nonsegmented, single-strand, non-infectious RNA genomes of negative polarity that possess inverse-complementary 3' and 5' termini, do not possess a 5' cap, are not polyadenylated, and are not covalently linked to protein.

Replication:

The ebolavirus life cycle begins with virion attachment to specific cell-surface receptors, followed by fusion of the virion envelope with cellular membranes and the concomitant release of the virus nucleocapsid into the cytosol. The viral RNA polymerase, encoded by the L gene, partially uncoats the nucleocapsid and transcribes the genes into positive-strand mRNAs, which are then translated into structural and nonstructural proteins. Ebolavirus RNA polymerase (L) binds to a single promoter located at the 3' end of the genome. Transcription either terminates after a gene or continues to the next gene downstream. This means that genes close to the 3' end of the genome are transcribed in the greatest abundance, whereas those toward the 5' end are least likely to be transcribed. The gene order is, therefore, a simple but effective form of transcriptional regulation. The most abundant protein produced is the nucleoprotein, whose concentration in the cell determines when L switches from gene transcription to genome replication. Replication results in full-length, positive-strand antigenomes that are, in turn, transcribed into negative-strand virus progeny genome copy. Newly synthesized structural proteins and genomes self-assemble and accumulate near the inside of



the cell membrane. Virions bud off from the cell, gaining their envelopes from the cellular membrane they bud from. The mature progeny particles then infect other cells to repeat the cycle. The Ebola virus genetics are difficult to study due to its virulent nature.

Pathogenesis Schematic:

Cells lining the inside of blood vessels (endothelial cells), macrophages, monocytes, and liver cells are the main targets of infection. After infection, a secreted glycoprotein, known as small soluble glycoprotein (sGP) or as the Ebola virus glycoprotein (GP), is synthesized. Ebolavirus replication overwhelms protein synthesis of infected cells and host immune defenses. The GP forms a trimeric complex, which binds the virus to the endothelial cells. The sGP forms a dimeric protein that interferes with the signaling of neutrophils, a type of white blood cell, which allows the virus to evade the immune system by inhibiting early steps of neutrophil activation. These white blood cells also serve as carriers to transport the

virus throughout the entire body to places such as the lymph nodes, liver, lungs, and spleen. Filoviral infection is known to interfere with proper function of the innate immune system. Ebola virus has demonstrated the ability to blunt the human immune system's response to viral infections by inhibiting the production of the interferon-beta protein. The presence of viral particles and cell damage resulting from budding causes the release of chemical signals (TNF- α , IL-6, IL-8, etc.), which are the signaling molecules for fever and inflammation. The damage to human cells, caused by infection of the endothelial cells, results in a loss of blood vessel integrity. This loss in vascular integrity is furthered with synthesis of GP, which reduces specific integrins responsible for cell adhesion to the inter-cellular structure, and damage to the liver, which leads to improper clotting.

Treatment:

Antivirals:

Favipiravir, an anti-viral drug approved in Japan for stockpiling against influenza pandemics, appears to be useful in a mouse model of Ebola. On 4 October 2014, it was reported that a French nun who contracted Ebola while volunteering in Liberia was cured with Favipiravir treatment.

Lamivudine, an antiviral drug which is usually used to treat HIV / AIDS, was reported in September 2014 to have been used successfully to treat 13 out of 15 Ebola-infected patients by a doctor in Liberia, as part of a combination therapy also involving intravenous fluids and antibiotics to combat opportunistic bacterial infections of Ebola-compromised internal organs.

Vaccine:

As of September 2014, no vaccine was approved by the United States Food and Drug Administration (FDA) for clinical use in humans. It was hoped that one would be initially available by November 2014. The most promising candidates are DNA vaccines or vaccines derived from adenoviruses, vesicular stomatitis Indiana virus (VSIV) or filovirus-like particles (VLPs) because these candidates could protect nonhuman primates from ebolavirus-induced disease. DNA vaccines, adenovirus-based vaccines, and VSIV-based vaccines have entered clinical trial. On 6 December 2011, the development of a successful vaccine against Ebola for mice was reported. Unlike the predecessors, it can be freeze-dried and thus stored for long periods in wait for an outbreak. An experimental vaccine made by researchers at Canada's national laboratory in Winnipeg was used, in 2009, to pre-

emotively treat a German scientist who might have been infected during a lab accident.

NIAID/GSK experimental Ebola vaccine

NIAID/GSK experimental Ebola vaccine appears safe and prompts immune response. An experimental vaccine to prevent Ebola virus disease was well-tolerated and produced immune system responses in all 20 healthy adults who received it in a phase 1 clinical trial conducted by researchers from the National Institutes of Health (NIH). The candidate vaccine, which was co-developed by the NIH's National Institute of Allergy and Infectious Diseases (NIAID) and GlaxoSmithKline (GSK), was tested at the NIH Clinical Center in Bethesda, Maryland. The interim results are reported online in advance of print in the *New England Journal of Medicine*. The trial enrolled volunteers were between the ages of 18 and

50. Ten volunteers received an intramuscular injection of vaccine at a lower dose and 10 received the same vaccine at a higher dose. At two weeks and four weeks following vaccination, the researchers tested the volunteers' blood to determine if anti-Ebola antibodies were generated. All 20 volunteers developed such antibodies within four weeks of receiving the vaccine. Antibody levels were higher in those who received the higher dose vaccine. The investigators also analyzed the research participants blood samples to learn whether the vaccine prompted production of immune system cells called T cells. A recent study showed that non-human primates inoculated with the candidate NIAID/GSK vaccine developed both antibody and T-cell responses, and that these were sufficient to protect vaccinated animals from disease when they were later

exposed to high levels of Ebola virus. The Ebola vaccine furthest along in development has cleared a critical milestone and edged closer to entering large-scale efficacy trials in West African countries hard hit by the current epidemic.



Sushmita C. T.Y.B.Pharm.

FORGET EBOLA, IS MUMBAI DENGUE READY...????

With 10 deaths and 659 dengue-positive cases in the city this year, the disease continues to be a bigger problem for Mumbai as compared to Ebola worldwide scare.

Dengue vs Ebola in numbers

While 13,567 cases of Ebola have been reported across the world in 2014, official reports state 20,500 dengue cases occur in a year in India alone. Moreover, in a country that has 1.2 billion people, the under-reporting must be as much as 300 times, say experts. Researchers have estimated that at least 58 lakh people in India suffer from dengue every year.

Where is Andes mosquito breeding?

Believe it or not, it is a posh man's disease. According to BMC, 80-85% breeding sites of the Andes mosquito have been found inside people's houses, with over 50% breeding found in plush or middle class housing societies - the very societies and bungalows whose owners do not give access to civic officials to screen their property for breeding sites.

How are residents responsible for this?

Dengue mosquito breeds inside houses in stagnated water, around buckets, plants, air conditioners and other such places.

BMC has asked citizens to do their bit to drive out the disease. Additional Municipal Commissioner (Health) Sanjay Deshmukh said: "Our staff is working overtime and on holidays too, to reach out to more people, but we are facing high-handedness from plush housing societies. It takes two to three days to reach out to such societies, and without their permission we cannot enter their houses to check breeding sites."

So how's BMC dealing with it?

In a survey of 7 lakh housing societies carried out by 900 BMC workers, the breeding sites were discovered in more than 50% non-slum areas and included high-rises, commercial establishments, bungalows etc. "We are slapping notices and collecting fines from housing societies/commercial establishments where we spot Andes mosquito breeding sites," added Deshmukh.

So far, BMC has collected Rs. 23 lakh in fine and dragged 344 housing societies/commercial establishments to court. "We don't have the power to arrest people, but we are coming down heavily on defaulters," he said.

Official speak

Executive Health Officer, BMC, Dr. Padmaja Keskar said, "One may lock their house for safety against theft while going on a holiday, but to lock mosquitoes out of house is another challenge. Monsoon receded over a month ago, but the Andes mosquito, which can survive for over a month, is still around."

What's the other thing that people are doing wrong?

Doctors say self medication is another reason why Mumbai is seeing dengue complications. "Dengue is not a fatal disease, but the chance of complication goes up if the patient is self-medicating," said Dr Jalil Parker, physician at Lilavati hospital.

What do doctors say?

They believe the symptoms exhibited by maximum dengue patients fall between type DEN-2 and DEN-4. "There are four virus types that cause dengue. The present representation of cases shows that DEN-2 and DEN-4 strains are in circulation right now," said Dr. Om Shrivastav, director of the department of infectious diseases at Jaslok Hospital. "There seems to be a change in vector transmission. Compared to last year, we are seeing more dengue cases in October. Intermittent rainfall, change in temperature, environment, and humidity are a few other

factors for the rise in dengue cases."

Dean of Nair Hospital Dr Ramesh Bharmal said, "We are sending blood samples to Defence Research & Development Organisation in Gwalior and National Institute of Virology in Pune for genotype and understanding which gene strain is in circulation in the city. The samples will be sent from BMC's tertiary care hospitals."



Komal L. T.Y.B.Pharm.

SLEEP PARALYSIS

Imagine waking up to find you can't move a muscle. It's dark, but you're sure you feel a presence in the room, hovering near your bed - or perhaps sitting on your chest, crushing the breath out of you. This weird phenomenon is known as sleep paralysis and a new study finds that understanding why it happens helps people feel less distressed after an episode. Believing that sleep paralysis is brought on by the supernatural, on the other hand, makes people feel more unnerved. Sleep paralysis occurs when the brain and body aren't quite on the same page when it comes to sleep. During rapid eye movement (REM) sleep, dreaming is frequent, but the body's muscles are relaxed to the point of paralysis, perhaps to keep people from acting out their dreams. Researchers have found that two brain chemicals, glycine and GABA, are responsible for this muscle paralysis. Estimates of how many people experience sleep paralysis vary from 5% to 60%, likely because of differences in survey methods. Some people find themselves experiencing sleep paralysis frequently, while others wake up paralyzed only once or twice in their lifetimes. The good news is that sleep paralysis is ultimately considered harmless.

Night terror

Becoming mentally aware before the body "wakes up" from its paralyzed state can be a terrifying experience, as people realize they can't move or speak. Frequently, these episodes are accompanied by hallucinations and the sensation of breathlessness. Such hallucinations likely gave rise to the myths of the Incubus and the Succubus, demons that pin people down in their sleep. People may also sense a wicked presence nearby or believe they are about to die. Some sleep paralysis episodes come with feelings of falling, floating or dissociating from the body.

Causes of sleep paralysis

Sleep paralysis is caused when hormones produced by the body to help you sleep do not wear off as you wake up. This means that you remain temporarily paralysed but conscious. To understand better what causes sleep paralysis, it is useful to know what usually happens when you are asleep. Sleep occurs in cycles and each cycle is split into two phases - rapid

eye movement (REM) sleep and non-REM sleep. The brain is very active in REM sleep and most dreams occur at this stage of sleep. Also, during REM sleep the body is paralysed, apart from the movement of the eyes and diaphragm (the main muscle used in breathing). The paralysis is thought to occur to prevent you acting out the actions in your dreams. Sleep paralysis occurs when the normal muscular paralysis of REM sleep temporarily continues after you have woken up.

Increased risk

Certain factors make you more likely to get sleep paralysis:

Age - it is more common in teenagers and young adults

Sleep deprivation - sleep paralysis is more common in people who do not get enough sleep

Irregular sleeping patterns - people with irregular schedules or who work shifts are more prone to sleep paralysis

Narcolepsy - some people with narcolepsy (a sleep disorder where you suddenly fall asleep at inappropriate times) also experience sleep paralysis

Family history - you may be more likely to have sleep paralysis if another member of your family also has it; however, this is an area where further research is needed

Reference:

- www.nhs.uk/Conditions/Sleep-paralysis/Pages/Causes.aspx
- www.livescience.com/27621-sleep-paralysis-scary.html



HAND SANITIZERS

It is a boon for many. All you have to do is take out this little bottle of liquid, squeeze a bit on your hand, rub them together and you are good to go. Hand sanitizers, as the manufacturers say, kill 99.9% bacteria. And it is true, they do. But, the reason it was invented was to use them when one has little or no access to clean water and soap. So are they really good for us considering how often we use them?

Dangers of excessive use:

Risk for Alcohol Poisoning:

Hand sanitizer poses a potential risk for alcohol poisoning particularly for young children. For a hand sanitizer to be effective, it should contain more than 60% alcohol. At that concentration, even a small dose can be dangerous if ingested, leading to dizziness, slurred speech, headaches, and even brain damage or death in extreme cases.

Potential for Antibiotic-Resistant Bacteria:

Over-reliance on these products could ultimately produce bacteria that are resistant to antibiotics.

Risk of Habitual Use:

The very convenience of using hand sanitizing gels can be dangerous. As people become accustomed to using instant products, they may tend to skip washing their hands with soap and water. A 2006 study found that pure water is more effective in removing gastro-intestinal viruses from your hands than both, anti-bacterial soap and hand sanitizer.

Potential Fire Hazard:

Some hand sanitizers are flammable due to their high alcohol content. A small amount of sanitizer, if ignited, can burn very hot very quickly, which can lead to personal injury or property damage.

What affects microbes can affect us too: One of the often used compounds in hand sanitizers is Benzalkonium Chloride. Its main function is to dissolve the outer covering of the bacterial cells, in turn killing them. But this compound is about as bad for our cells as it is for

the microbes. The compound has been found to increase the irritation within the mucosal lining and can aggravate allergic reactions.

That sweet smell can be highly toxic:

That odour of sanitizers that you love so much is due to the inclusion of compounds called phthalates. These compounds easily leach into foods and then into your body. Derivatives of this compound leads to hormonal (broadly endocrine system) disruptions.

Does not clean all residues:

After using a hand sanitizer you might feel that your hands are clean, but it does not take off the entire residue. Things like fats and sugar deposits do not get affected or cleaned without the use of soap. So using it as a method to clean your hands after eating that yummy cheese popcorn will do you no good. In fact these residues tend to pick up more dirt, making your hands dirtier than before.

Can damage skin:

While most hand sanitizers do claim to have moisturizing effects, too much or continuous use of the agent can damage the skin. In some cases it may even cause your hands to become rougher than normal.

So Sometimes common sense can play a heavy part in staying healthy. Keeping your hands clean does not always require a hand sanitizer. Even with the recent progress in health fields, past generations have survived without it. Use hand sanitizer sparingly, when necessary, and help maintain a healthy, happy environment for us all.



Suparna A. T.Y.B.Pharm.

CHOCOLATE : A THERAPEUTIC AND NUTRACEUTICAL DELIVERY SYSTEM

The bioactive ingredients of chocolate:-

Epidemiologic evidence has suggested that certain plant poly phenols, in particular the flavonoids, promote good health and help to prevent the onset of chronic diseases, including cardiovascular disease and cancer. Amongst the flavonoids, the flavanols have received specific attention for their potential to prevent cardiovascular disease and are present in wine, tea, and various fruits and berries. Chocolate also contains large amounts of flavanols and is now thought to have a potential Cardio protective role in the diet. The flavanols in chocolate consist of the monomers epicatechin and catechin plus oligomers of epicatechin and catechin which are known as procyanidins.

Bioavailability and metabolism:-

Following absorption from the gut, flavanols are methylated and glucuronidated with some sulphonation in the liver. These metabolites may then represent the actual bioactive forms in the body. In addition colonic micro flora can degrade the flavan ring structure to form simple phenol and ring fission metabolites that may be physiologically active.

Mechanisms of action:-

Flavanols in chocolate are thought to offer cardio protection by a variety of mechanisms including antioxidant action, the result of which is that LDL (low density lipoprotein) is protected from oxidation thus reducing the formation of atherosclerotic lesions. Other cellular mechanisms of action of flavanols include the reduction of inflammation, the reduction of platelet aggregation and an increase in the production of nitric oxide resulting in vasodilation. The structural characteristic of flavanols that confirms their excellent antioxidant properties is the hydroxylation of the basic flavan structure, in particular the formation of dihydroxy groups on the B-ring, i.e. the formation of catechol structures.

Dark or white?

The flavanols in chocolate come from the cocoa liquor formed as a result of processing the cocoa beans. As white chocolate contains no cocoa liquor, it contains no flavanols and could thus be expected to have no cardio protective properties; hence its use as a control when investigating the prospective benefits of flavanols in chocolate.

Development of nutraceutical containing types:-

In addition to chocolate's endogenous bioactive compounds, are plant-derived nutraceuticals, for example:-flavonoids/isoflavonoids, stilbenes and phytosterols.

Isoflavonoids

The result of the addition of the soya-derived isoflavonoids, genistein and daidzein, could potentially not only help to prevent cardiovascular disease, but could help prevent hormonal dependent diseases such as breast cancer and osteoporosis. The therapeutic effects are due to blocking estrogen (antagonist) at estrogen receptor sites in the case of breast cancer prevention, and mimicking estrogen (agonist) at estrogen receptor sites in the case of osteoporosis treatment. Isoflavones are thus said to be selective estrogen receptor modulators (SERM). Estrogen mimicking effects are also thought to be of value in the prevention of cardiovascular disease by the maintenance of good HDL (high density lipoprotein) to LDL (low density lipoprotein) ratios, potentially further enhancing the cardio protective effects of Isoflavones-containing chocolate.

Stilbenes (Resveratrol)

This plant polyphenol is found most famously in red wine. Recently it has been postulated that much of the therapeutic potential of resveratrol is due to its great ability to activate the human sirtuin-1 (SIRT1) gene. SIRT1 is thought to regulate such processes as insulin production and fat metabolism. This has led to speculation that sirtuins might mediate the effects of calorific restriction and prove particularly useful in the prevention of diabetes².

Phytosterols

Phytosterols are a group of plant secondary metabolites that closely resemble cholesterol in structure. When included in the diet they lower the absorption of cholesterol thereby promoting good health. They have for a number of years been successfully included in a range of products, in particular margarine, yoghurt and milk.

Improving cognitive function:-

Nutraceutical additions to chocolate could, however, potentially aid cognitive function as photochemicals, in particular the isoflavones, genistein and daidzein, have been shown to improve cognitive function in humans in a number of studies.



Princy D. T.Y.B.Pharm.

COMPUTERS...A BOON TO THE PHARMA INDUSTRY

When prescribing or retailing medications to the patients, one of the premiere concern of both the doctors and the pharmacists is the possibility of drug interaction. Historically, both pharmacists and doctors keep vast personal records of their patients in order to prevent this mishap from occurring. However, in more modern times, medical practitioners and more specifically pharmacists have relied on computers to track the majority of these drug interactions, thus simplifying their task. Computers were first introduced into the world of pharmacy in 1974 and since 1983 wide use of computers had began to help eradicate this possible mistake. When a patient's medication may possibly interfere with another medication, computer indicates the supervising pharmacist to review their decision to dispense a particular drug to the patient. The computer normally indicates this using the patient's previous drug purchased at the pharmacy, or its various branches, maintaining a large data base of on the medications received by each patient. This method of data storage makes drug dispensing rapid and more efficient. Earlier the pharmacists would have to prevent such interactions by either pulling out their files. This may lead to many possibilities for error, since a patient could obtain one prescription from a certain pharmacy and another medication from a different pharmacy. The ability of computers to indicate these possibly harmful situations to the pharmacists has greatly reduced these occurrences. When a DRUG is indicated by computer to the pharmacist, the pharmacist is asked by the computer to either verify the situation with the patient or their doctor or change the medication given through the consultation with the patient's doctor. For e.g., if a man was on nitrates, such as nitroglycerine, that was obtained from a cardiologist and then obtained medication for erectile dysfunction from another practitioner who prescribed him the medicine unaware of the nitroglycerine he was already prescribed, the pharmacist will be alerted by the computer program of this major drug interaction and can then consult the patient on alternative options. This information is provided by a patient's insurance policy, allowing the pharmacist to still consult the patient regarding his option. Problems can arise when a patient does not have insurance and visits different pharmacies and medical practitioners to receive their prescribed drugs. In this case, the first line of defense in preventing DRUG situations resides with the patients themselves. However, most patients are



unaware of these possible drug interactions and also about what drugs they are actually receiving as well as the exact effect they have on their bodies. For these reasons, the second line of defense is the health care practitioners who actually prescribe the medicines. These practitioners largely rely on medical charts and the patients to inform them of the medications a patient is obtaining, which is not as precise as the computer software utilized by most pharmacies. The last line of defense in such situation is the pharmacy personnel. Modern computer programs alert pharmacists a drug being prescribed, which can result in major drug interactions. This system is certainly not perfect but when appropriately used aids in the prevention of nearly all the drug interactions, while still granting pharmacies and health care providers the ability to sustain the fast phase required for today's growing numbers of prescribed medicines. More modern usage of the DRUG also allows the pharmacy personnel to inform their patients of cheaper alternative medicines, which is crucial due to rising cost of medicines today. Also, the DRUG system can assist pharmacist in impeding the widespread abuse of controlled prescription, by monitoring the days required to pass before a patient can receive another controlled substance electronically. Pharmacy play a major role in advancement of contemporary medicine, making it crucial for pharmacies to utilize technology that is as up-to-date as the rest of the medical field. It would greatly reduce the possibility of error if doctors, other prescribing practitioners also develop better methods such as the DRUG model already incorporated by pharmacies. It would create greater efficiency in prescribing and dispensing the correct medications and greatly influence the efficacy of medicine without creating any drug interactions.



Sadhana S. T.Y.B.Pharm.

INVISIBLE SHIELD FOUND THOUSANDS OF MILES ABOVE EARTH BLOCKS 'KILLER ELECTRONS'

A team led by the University of Colorado Boulder has discovered an invisible shield some 7,200 miles above Earth that blocks so-called "killer electrons," which whip around the planet at near-light speed and have been known to threaten astronauts, fry satellites and degrade space systems during intense solar storms.

The barrier to the particle motion was discovered in the Van Allen radiation belts, two doughnut-shaped rings above Earth that are filled with high-energy electrons and protons, said Distinguished Professor Daniel Baker, director of CU-Boulder's Laboratory for Atmospheric and Space Physics (LASP). Held in place by Earth's magnetic field, the Van Allen radiation belts periodically swell and shrink in response to incoming energy disturbances from the sun.

As the first significant discovery of the space age, the Van Allen radiation belts were detected in 1958 by Professor James Van Allen and his team at the University of Iowa and were found to be composed of an inner and outer belt extending up to 25,000 miles above Earth's surface. In 2013, Baker -- who received his doctorate under Van Allen -- led a team that used the twin Van Allen Probes launched by NASA in 2012 to discover a third, transient "storage ring" between the inner and outer Van Allen radiation belts that seems to come and go with the intensity of space weather.

The latest mystery revolves around an "extremely sharp" boundary at the inner edge of the outer belt at roughly 7,200 miles in altitude that appears to block the ultrafast electrons from breaching the shield and moving deeper towards Earth's atmosphere.

"It's almost like these electrons are running into a glass wall in space," said Baker, the study's lead author. "Somewhat like the shields created by force fields on Star Trek that were used to repel alien weapons, we are seeing an invisible shield blocking these electrons. It's an extremely puzzling phenomenon."

The team originally thought the highly charged electrons, which are looping around Earth at more than 100,000 miles per second, would slowly drift downward into the upper atmosphere and gradually be wiped out by interactions with air molecules. But the impenetrable barrier seen by the twin Van Allen belt spacecraft stops the electrons before they get that far, said Baker.

The group looked at a number of scenarios that could create and maintain such a barrier. The team wondered if it might have to do with Earth's magnetic field lines, which trap and control protons and electrons, bouncing them between Earth's poles like beads on a string. They also looked at whether radio signals from human transmitters on Earth could be scattering the charged electrons at the barrier, preventing their downward motion. Neither explanation held scientific water, Baker said.

"Nature abhors strong gradients and generally finds ways to smooth them out, so we would expect some of the relativistic electrons to move inward and some outward," said Baker. "It's not obvious how the slow, gradual processes that should be involved in motion of these particles can conspire to create such a sharp, persistent boundary at this location in space."

Another scenario is that the giant cloud of cold, electrically charged gas called the plasmasphere, which begins about 600 miles above Earth and stretches thousands of miles into the outer Van Allen belt, is scattering the electrons at the boundary with low frequency, electromagnetic waves that create a plasmapheric "hiss," said Baker. The hiss sounds like white noise when played over a speaker, he said.

While Baker said plasmaspheric hiss may play a role in the puzzling space barrier, he believes there is more to the story. "I think the key here is to keep observing the region in exquisite detail, which we can do because of the powerful instruments on the Van Allen probes. If the sun really blasts Earth's magnetosphere with a coronal mass ejection (CME), I suspect it will breach the shield for a period of time," said Baker, also a faculty member in the astrophysical and planetary sciences department.

Reference: www.sciencedaily.com



MANGALYAAN : MARS ORBITAL MISSION (MOM)

The MOM mission concept began with a feasibility study in 2010, after the launch of lunar satellite Chandrayaan-1 in 2008. The government of India approved the project on 3 August 2012.

Here are 8 reasons why India's Mars Orbiter Mission (MOM) is just amazing:

The Mangalyaan mission cost India \$73 million (~Rs.450 crores) which is even cheaper than an eight lane bridge in Mumbai which cost \$340 million. It is less than the budget of film "Gravity" which was about \$105 million and about one-tenth of what the US has spent on MAVEN, making it undoubtedly the most cost-effective inter-planetary space mission to have ever been undertaken anywhere in the world!. In real terms, when distributed over the population of 1.2 billion, every Indian has contributed Rs.4 per towards the mission. Mangalyaan will observe the environment of Mars and look for various elements like methane (marsh gas), which is a possible indicator of life. It will also look for Deuterium-Hydrogen ratio and other neutral constants. The orbiter weighs 1,350-kg, which is even less than the weight of an average sports utility vehicle.

The manufacturing of Mangalyaan took 15 months while NASA took five years to complete MAVEN. Mangalyaan is the first spacecraft to be launched outside the Earth's sphere of influence by ISRO in its entire history of 44 years. ISRO will be the fourth space agency in the world after National Aeronautics and Space Administration (NASA) of the US, Russian Federal Space Agency (RFSA) and European Space Agency to have successfully undertaken a mission to Mars. Considering that Mars is about 670 million kilometers from the Earth, the cost of the ride works out to about Rs.6.7 per kilometer - cheaper than what even auto rickshaws charge anywhere in India. The 15 kg (33 lb) scientific payload consists of five instruments:

Atmospheric studies: Lyman-Alpha Photometer (LAP) - a photometer that measures the relative abundance of deuterium and hydrogen from Lyman-alpha emissions in the upper atmosphere. Measuring the deuterium/hydrogen ratio will allow an estimation of the amount of water loss to outer space. Methane Sensor for Mars (MSM) - will measure methane in the atmosphere of Mars, if any, and map its sources.

Particle environment studies: Mars Exospheric Neutral Composition Analyser (MENCA) - is a quadrupole mass analyser capable of analysing the neutral composition of particles in the exosphere.

Surface imaging studies: Thermal Infrared Imaging Spectrometer (TIS) - will measure the temperature and emissivity of the Martian surface, allowing for the mapping of surface composition and mineralogy of Mars. Mars Colour Camera (MCC) - will provide images in the visual spectrum, providing context for the other instruments.

Men of MOM:

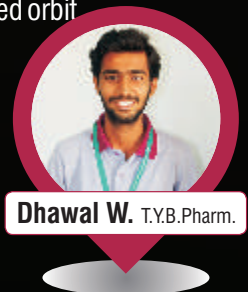
K. Radhakrishnan: He is the Chairman of ISRO and Secretary in department of space. He was responsible for leading the mission and overall activities of ISRO.

M. Annadurai: He is the Program Director of Mars Orbiter Mission. He was responsible for budget management, direction for spacecraft configuration, schedule and resources.

S. Ramakrishnan: He is the Director of Vikram Sarabhai Space Centre and Member Launch Authorization Board. He is responsible for realizing the rocket (Polar Satellite Launch Vehicle) that ferried the Mars orbiter.

S.K Shivakumar: He holds the position of the Director of ISRO Satellite Centre. He was responsible for developing satellite technology and implementing satellite systems for scientific, technological and application missions.

P. Kunhikrishnan: The project director of PSLV program and was appointed as mission director for the ninth time. He was responsible for seeing the rocket completes its mission successfully and that the satellite is correctly injected in the designated orbit



Dhawal W. T.Y.B. Pharm.

HONEY

Honey has a long medicinal history. The ancient Egyptians not only made offerings of honey to their gods, they also used it as an embalming fluid and a dressing for wounds. Today, many people swarm to honey for its antibacterial and anti-inflammatory properties. Holistic practitioners consider it one of nature's best all-around remedies. But outside of the laboratory, claims for honey's healthfulness are unproven -- except in the area of wound care and, to a lesser extent, cough suppression.

Here's the truth behind the claims about honey's health benefits and an important warning.

***Never Give Honey to an Infant:** Honey is natural and considered harmless for adults. But pediatricians strongly caution against feeding honey to children under 1 year old. "Do not let babies eat honey," states 'foodsafety.gov', a web site of the U.S. Department of Health and Human Services. That's because of the risk of botulism. The spores of the botulism bacteria are found in dust and soil that may make their way into honey. Infants do not have a developed immune system to defend against infection, It's been shown very clearly that honey can give infants botulism," a paralytic disorder in which the infant must be given anti-toxins and often be placed on a respirator in an intensive care unit.

***Antibacterial Honey?** In the laboratory, honey has been shown to hamper the growth of food-borne pathogens such as E. coli and salmonella, and to fight certain bacteria, including Staphylococcus aureus and Pseudomonas aeruginosa, both of which are common in hospitals and doctors' offices. But whether it does the same in people hasn't been proven.



Mugdha R. T.Y.B.Pharm.

FROZEN EGGS ARE NO GUARANTEE, REALLY

Women can't stop the biological clock from ticking, so they are choosing the next best thing: freeze fertility. Freezing eggs - technically known as Oocyte cryopreservation. Human oocyte cryopreservation (egg freezing) is a novel technology in which a woman's eggs (oocytes) are extracted, frozen and stored. Later, when she is ready to become pregnant, the eggs can be thawed, fertilized, and transferred to the uterus as embryos, at an added cost of Rs.1.5 lakh to Rs.2 lakh per attempt in India. Oocyte cryopreservation is aimed at a particular group of women : those diagnosed with cancer who have not yet begun chemotherapy or radiotherapy; those undergoing treatment or women with a family history of early menopause and have an interest in fertility preservation. With egg freezing, they will have a frozen store of eggs, in the likelihood that their eggs are depleted at an early age. The egg retrieval process for oocyte cryopreservation is the same as that for in vitro fertilization. This includes one to several weeks of hormone injections that stimulate ovaries to ripen multiple eggs. When the eggs are mature, a medication to trigger ovulation is given and the eggs are removed from the body using an ultrasound-guided needle through the vagina. The procedure is usually conducted under sedation. The eggs are immediately frozen. Eggs (oocytes) are frozen using either a controlled-rate, slow-cooling method or a newer flash-freezing process known as vitrification. Vitrification is much faster but requires higher concentrations of cryoprotectants to be added. The result of vitrification is a solid glass-like cell, free of ice crystals. For a woman in late 30s, it can take upto 10 to 20 frozen eggs to be reasonably sure of a single pregnancy, which means at least two cycles of injecting hormones for viable embryos .Even then there is no guarantee that every woman who opts for egg freezing will end up with a baby. While eggs that are obviously flawed are discharged right after retrieval, it is not until the eggs are fertilised with sperm that their viability can really be known. And the risk doesn't end there- Not every healthy embryo implanted in the womb results in a baby.



Sanjana M. T.Y.B.Pharm.

NOVEL INSIGHTS INTO THE MOLECULAR MAKEUP AND FORMATION OF CELLULAR AGGREGATES IN AMYOTROPHIC LATERAL SCLEROSIS

Amyotrophic lateral sclerosis (ALS) is a fatal neurodegenerative disease caused by the loss of both upper and lower motor neurons. Affected patients develop progressive muscle weakness eventually leading to death due to respiratory failure, typically 3-5 years after symptom onset. The central pathological hallmark of ALS is the presence of cytoplasmic inclusions or aggregates in degenerating motor neurons and surrounding oligodendrocytes. Inclusions are not restricted to the spinal cord but also present in other brain regions such as the frontal and temporal cortices, hippocampus and cerebellum. The predominant aggregates found in ALS patients are ubiquitinated aggregates that are classified as either Lewy body-like hyaline inclusions or skein-like inclusions. At the ultrastructural level, Lewy body-like or skein-like inclusions appear as randomly oriented filaments covered by fine granules. Additional subclasses of aggregates found in ALS are Bunina bodies, which are small eosinophilic ubiquitin-negative inclusions and round hyaline inclusions without a halo. Bunina bodies consist of amorphous electron-dense material surrounded by tubular and vesicular structures. Furthermore, neurofilamentous inclusions are found in the axon hillock in close proximity to ubiquitinated inclusions. Other cellular abnormalities include the presence of mitochondrial vacuolization, fragmentation of the Golgi apparatus and abnormalities at the neuromuscular junction. In 1993, SOD1 was the first protein to be identified to aggregate in FALS cases carrying a mutation in the SOD1 gene.

Later, mutations in VAPB were also shown to cause ALS in a group of FALS patients. Due to exponential development of genetic techniques, several new proteins have been identified to be involved in ALS pathophysiology during the past few years, including TDP-43, FUS, OPTN, UBQLN2 and C9ORF72.



Jineetkumar G. Faculty

NATIONAL SERVICE SCHEME - A WAY TOWARDS BETTER INDIA

National service scheme was basically introduced in our country's educational system to make education more relevant to the demands of society by encouraging student's participation and democratization, fostering emotional and national integration and developing human resources.

The overall objective of the national service scheme is "Personality Development", Service to the community is the activity through which this objective is sought to be attained.

The more specific objectives of the National Service Scheme are to arouse the students' conscience and to provide them an opportunity

- 1) To work with and among people
- 2) To enhance knowledge of himself and the community through confrontation with reality
- 3) To put his scholarship to practical use in mitigating at least some of the social problems
- 4) To engage in creative and constructive social action
- 5) To gain skills in the exercise of democratic leadership, and
- 6) To gain skills in programme development.

The educational goal of the NSS implies that besides gaining understanding of concepts like community, social structure, power conflict, etc. occurring in real life situations, students should acquire competence in the fields of programme planning, shouldering of responsibilities, participation in cooperative tasks and promotional work in the community.

The service goal of the NSS also calls for educational approach in solving community problems. Its purpose is to help the community to recognise its needs and to assist in the mobilization of resources to meet these needs.

The motto of NSS, "Not Me But You" is a terse expression. At the surface level, it appears to be very simple and short, but behind it lies a lot of meaning. It is very deep and suggestive and is keeping with the spirit of service for others.

The expression stands for two things:

Forgetting and surrendering the self, and rendering selfless service to others.

The word 'Not' before 'Me' is to reduce the self to nothing and the word 'But' before 'You' can be expanded as follows:-

"I do not live for me but for you." "The world is not only for me but also for you"



Milind K. Faculty

PHILOSOPHERS CORNER



INDIA AT THE 2014 ASIAN GAMES

Indian sports had a lot to celebrate despite a decrease in the medal count at the 2014 Asian Games in Incheon. The biggest triumphs that brought India pride were the gold medals in men's hockey, Sania Mirza (tennis mixed doubles) and celebrated boxer MC Mary Kom and despite the L Sarita Devi controversy there was joy in the Indian contingent. Pistol shooter Jitu Rai and freestyle grappler Yogeshwar Dutt were among the other heroes of the Games. India secured 11 gold medals, three fewer than in China four years ago, 10 silver (including the upgraded one of Manju Bala in women's hammer) and 36 bronze for a total haul of 57. Four of those gold medals came in athletics (two) and kabaddi (two) while archery, boxing, hockey, shooting, squash, tennis and wrestling accounted for the rest. The gold medal haul also placed India in the eighth position on the medals table, two rungs below where they had finished in China. India's men's hockey squad, led by Sardar Singh, brought immeasurable joy by reclaiming the gold via the penalty shoot-out in a nail-biting, action packed final against arch-foes Pakistan. The triumph also piloted India directly into the Rio Olympic Games without the trouble of going through the qualifiers. In between these cherished successes came memorable gold medals in other disciplines -- fetched by compound men's team archers, Mary Kom (the first-ever in women's

competition and the only one from the ring), Yogeshwar Dutt, men's squash team spearheaded by Saurav Ghosal, tennis mixed doubles pair of Sania Mirza and Saket Myneni, woman discus thrower Seema Punia and the 4x400m relay team. The major let-downs were star shuttlers Saina Nehwal and P V Sindhu who helped the country win the women's team bronze before producing a flop show in individual events that followed. There were athletes like half miler Tintu Luka -- silver medalists in women's 800m -- and woman bronze medal winning javelin thrower Annu Rani who set up new personal marks or came close to their personal bests while climbing the medal rostrum. India's campaign in most other disciplines was hardly worth mentioning though there were two bronze medals in wushu, a rare men's swimming bronze (Sandeep Sejwal in 50m breaststroke) and a first-ever medal (bronze) in women's sailing.

Overall, India's athletes did the country proud at Incheon.



Shraddha G. T.Y.B.Pharm.

BENEFITS OF SPORTS

When you think about the advantages of playing sports, your first thought is probably that sports improve your physical fitness. Research shows that participating in sports helps your mind too.

Improve Mood: Playing sports stimulates brain chemicals that make you feel happier and more relaxed. Team sports in particular provide a chance to unwind and engage in a satisfying challenge that improves your fitness. They also provide social benefits by allowing you to connect with teammates and friends in a recreational setting.

Improve Concentration: Regular physical activity helps keep your mental skills sharp as you age, including thinking, learning, and using good judgment. Research has shown that doing a mix of aerobic and muscle-strengthening activities, which are common to most sports, three to five times a week for at least 30 minutes, can provide these mental health benefits.

Reduce Stress and Depression: Exercise reduces the levels of stress hormones in your body, such as adrenaline and cortisol. At the same time, it stimulates production of endorphins, which are natural mood lifters that can help keep stress and depression at bay. Endorphins may even leave you feeling more relaxed and optimistic after a hard workout on the sports field.

Improve Sleep: Sports improves the quality of your sleep, helping you to fall asleep faster and deepen your sleep. Sleeping better can improve your mental outlook the next day, as well as improve your mood. Just be careful not to engage in sports too late in the day-- evening practices within a few hours of bedtime may leave you too energized to sleep.

Boost Self-Confidence: The regular exercise that comes with playing sports can help boost your confidence and improve your self-esteem. As your strength, skills and stamina increase through playing sports. Sports provide you with a sense of mastery and control, which often leads to a feeling of pride and self-confidence. With the renewed vigor and energy that comes from sports, you may be more likely to succeed in tasks off the playing field as well as on it.

When considered in tandem with the physical benefits of sports and exercise, the mental benefits are hard to ignore. What else can help you feel better and have more energy while also promoting fitness and longevity? That's the power of sports.



Alston M. T.Y.B.Pharm.

OMG FACTS II

- ❖ Entomophobia (also known as insectophobia) is a specific phobia of one or more classes of insect. More specific cases included apiphobia (fear of bees) and myrmecophobia (fear of ants).
- ❖ An "ECCEDENTESIAST" is a person who hides their pain behind a smile.
- ❖ A hedgehog's heart beats 300 times a minute on average
- ❖ Many hamsters only blink one eye at a time
- ❖ Getting too little sleep can make you feel hungry even when you don't need to eat, causing you to gain weight. If you're on a weight-loss plan, it's important to make sure you are getting enough sleep.
- ❖ Studying for 30-50 minutes at a time (with 10 minute breaks in between) is the most effective way to retain information.
- ❖ Talking to yourself actually makes you smarter.
- ❖ Soteriophobia is the fear of becoming dependent on someone else.
- ❖ Hummingbirds can't walk.
- ❖ Interbrain networks are created between people who make music together.
- ❖ In an emergency, a crayon will burn for 30 minutes.
- ❖ The oldest musical instrument is thought to be a 35,000-year-old flute made from a vulture bone.
- ❖ Karaoke means "empty orchestra" in Japanese.
- ❖ People of high intelligence are more prone to anxiety than those of moderate intelligence.
- ❖ The human brain is wired to connect with others so strongly that it experiences what they experience as if it's happening to us.
- ❖ Humans share 50% of their DNA with bananas.
- ❖ Every atom in existence is about 99.99% empty space - Which means everything in the universe is made up of mostly nothing.
- ❖ The mouth of a jellyfish is also its anus.
- ❖ A Rubik's cube has 43,252,003,274,489,856,000 possible configurations.
- ❖ A first class ticket on the Titanic would cost about \$100,000 today.
- ❖ All the polar bears in this world are left-handed creatures.
- ❖ Pomegranate juice increases memory and also delays ageing.
- ❖ Try to have a handful of unsalted nuts like almonds, cashews and walnuts, because they are great for raising sperm count.



Abna S. T.Y.B.Pharm.

BRANCHES OF KNOWLEDGE

Q. What is Conchology?

A. It is the science dealing with the study of shells.

Q. What is Trichology?

A. It deals with the study of hair.

Q. What is study of fungi called?

A. Mycology.

Q. What is the difference between Geology and Geography?

A. Geology is geology of the past and Geography is geology of the present.

Q. Which science deals with study of colors?

A. Chromatology.

Q. What is the study of human beauty called?

A. Kalology.

Q. What is the study of drugs called?

A. Pharmacology.

Q. What is Dactylography?

A. It is the study of fingerprints for identification purpose.

Q. What do you understand by Toxicology?

A. It is the study of poisons.

Q. What is Physiology?

A. It is the study of human body.



Anurag S. F.Y.B.Pharm.

MEDITATION

Meditation is popularly perceived to be any activity in which the individual's attention is primarily focused on a repetitious cognitive activity. This very broad definition is, in the opinion of the Meditation Research Program, the main cause for much of the inconsistent outcomes seen in meditation research.

Meditation can be an effective form of stress reduction and has the potential to improve quality of life and decrease healthcare costs.

Meditation involves achieving a state of 'thoughtless awareness' in which the excessive stress producing activity of the mind is neutralised without reducing alertness and effectiveness.

Authentic meditation enables one to focus on the present moment rather than dwell on the unchangeable past or undetermined future.

The theoretical explanation for the effects of meditation and relaxation techniques is that the release of catecholamines and other stress hormones are reduced and parasympathetic activity is increased.

Whether meditation involves other unique neurophysiologic effects remains to be proven.

How to meditate

Whenever it fits your schedule, you should meditate every day for at least 10 minutes. Some people find that beginning the day in a state of peace and silence makes the whole day go better. Some people find the best time is in the evening, where the soothing effects help take them into deep and nourishing sleep. And many people meditate both morning and evening and include some cleansing techniques with the evening meditation.



Bharat C. T.Y.B.Pharm.

TECHNOLOGY

I wake up each morning,
when my phone starts ringing,.

I hit the snooze button,
To make it stop singing.

Call me lazy,
but I try to save time.

Microwaving my breakfast,
is not a real crime.

I get the car,
with in GPS on.

quick to my college,
the miles quickly gone.

With the click of a mouse,
I outsource my work.

Through Amazon reviews,
I search for my perk.

I won't wait for weeks,
demand it today.

Another electric game,
I can't wait to play.

I drive half an hour,
to the grocery store.

Technology is friendly,
and opens the door.

I finally use
my dry mouth to speak.

I'm definitely rusty only using SMS's,
and sound like a freak.

Why can't they get a machine,
to slice and cook the meat.

My disappointment at this,
I eagerly tweet.

At the checkout,
I have a clear choice.

Use a human
or a machine with a noise.

I return to my college,
my game has arrived.

My ancestors were truly,
technology deprived.



Iwana M. F.Y.B.Pharm.

LIFE IS BEAUTIFUL

Life: Is a precious gift, so value and live it to the fullest.
 Examples: Isn't the best way to teach, it's the only way.
 Smile: The world looks brighter from behind a smile.
 Perception: All things are difficult before they are easy.
 Laughter: Always laugh when you can, it is the cheapest medicine.
 Imagination: It's your imagination that can take you anywhere.
 Determination: the fulfillment of your dreams lies within you and you alone.
 Love: Is life...and if you miss love, you miss life.
 Opportunity: In middle of every difficulty lies an opportunity.
 Conviction: People support what they help create.
 Lessons: Big lessons of life are learned from little mistakes.
 Teach: If you would thoroughly know anything, teach it to others.
 Laughter: Take time to laugh, it is music of the soul.
 Attitude: The positive thinker creates a majority.
 Helpfulness: Doing nothing for others...it is something you lose for yourself.
 Humbleness: Soar high and keep your feet on the ground.
 Encouragement: An achieved goal is the starting point for future progress.
 Sharing: The giving of love is an education in itself.



Diana C. S.Y.B.Pharm.



HAKUNA MATATA

There are so many words
 For cheering

When you are all upset
 They can lose all the temper

All the boiling
 And simmering too

Can be washed away
 By some simple words

They make your life
 Make you shout with joy

Forget all your fears
 Forget all those moments

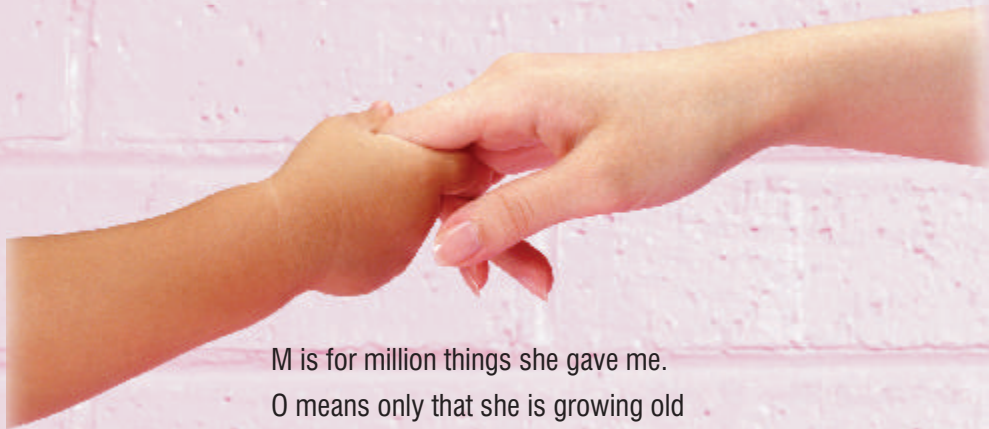
When everything was wrong
 Get over it, say it

Say it loud, say it clear
 Say 'HAKUNA MATATA'



Zeba D. S.Y.B.Pharm.

MOTHER 'O' MOTHER



M is for million things she gave me.
 O means only that she is growing old
 T is for the tears she shed to save me
 H is for heart of purest gold
 E is for her eyes with shining love
 R means she will always be right.
 "Put them all together, they spell mother,
 A word that means the world to me!"
 M is for mercy she possess
 O means I owe her all I own
 T is for her tender sweet cares
 H is for her hand that makes the home.
 E is everything she does to help me
 R means she is regular.
 "Put them all together, they spell mother,
 A word that means the world to me!"



Drashti V. F.Y.D.Pharm.

FEMALE FOETICIDE



Oh, people of the world
 Let us blossom
 Don't kill us in the womb
 We have to see the beautiful world
 Females are the wealth and pride of the nation
 Girls are as good as boys
 Do not kill us
 Female foeticide is a crime against women
 Think it over
 It should be banned
 At all cost
 No abortions
 Save the beautiful creation of god
 Oh, the people of the world
 Awake now
 And put all your efforts
 To save the girl child
 Otherwise,
 You will add one more in the list of
 "ENDANGERED SPECIES"



Heena D. S.Y.B.Pharm.

NATURE

Life is full of joy and sorrow,
Enjoy it freely or in a deep burrow.

It's yours you have to live it,
Don't lose it by falling in a pit.

Look the dance of peacock in rain,
Look at caged bird in pain.

Listen the lion roar,
Or a song of condor.

Speak like cuckob sweet voice,
So that everyone listens you even a small mouse.

Search for the end of sea,
Or in a forest a tree.

So try to enjoy every moment of life,
Do not try to disturb a hive.

Don't become selfish and jealous of other,
Treat the nature as your mother.

You will see your life becoming worthwhile,
When you walk around river a mile.



Janvi V. S.Y.B.Pharm.

RAIN

It was the time of dawn,
People were taking their yawn,
Birds were chirping all around,
Sprinters were taking a round,
It was a beautiful morning,
And suddenly it started raining.
Since it was the first rain of the season,
So no one has any reason.
People were rushing to keep their things here and there,
But they found the space nowhere.
Black dust from the terrace came on the road,
Melodious song was given by the little toad.
Thunderstorm took everyone's attention,
Giving them a heavy tension.
How will they go to school to complete their copies?
The water stand on the lane & the guard has to pull the chain.
The drivers stop the train & also there was no signal for the plane.
The rain stopped after an hour,
Children have to miss the shower.
Every one again saw the sun,
After enjoying & gaining a lot of fun.



Shraddha P. S.Y.B.Pharm.

A FAMILY

A family is made of love and tears
 Laughter and years
 It grows stronger with the passing of time
 More precious with the making of memories
 Sometimes a family is made of one
 You don't like for a while
 But you love for a life time
 It's a gift whose value is found
 Not in number but in its capacity to love
 It's the place you find someone to
 Encourage you, believe in you
 Celebrate with you and comfort you
 A family is where your heart feels most at
 Home because you're always wanted,
 Always welcomed, always needed
 And always loved.



Sonam D. S.Y.B.Pharm.



PEACE

Behold it comes in might,
 The power that is not power,
 The light that is in darkness,
 The shade in dazzling light.

It is joy that never spoke,
 And grief unfelt, profound,
 Immortal life un-lived,
 Eternal death unmourned.

It is neither joy nor sorrow,
 But that which is between,
 It is not night nor morrow,
 But that which joins them in.

It is sweet rest in music,
 And pause in sacred art;
 The silence between speaking;
 Between two fits of passion-
 It is the calm of heart.

It is beauty never seen,
 And love that stands alone,
 It is the song that live un-sung,
 And knowledge never known.

It is death between two lives,
 And hell between two storms,
 The void hence rose creation,
 And that where it returns.

To it the teardrop goes,
 To spread the smiling form,
 It is the goal of life,
 And peace-its only home!



Shashank T. S.Y.B.Pharm.



ILLUSION

Isn't mesmerizing the world of magic?
 Creating illusions by using a tactic,
 Playing with shadows is quite amusing,
 Of illusionary bird and animal designing.

To your reflection you stare in awe,
 Delightful...what you just saw,
 For the image in the pool looks beautiful,
 In the serene waters seems blissful.
 The external beauty can seek attention,
 But the fact is...its mere fascination.

Illusions can't be confined to only physical,
 But concerned with something behavioral.
 For that what seems unreal is delusion,
 People's polite gestures may be an illusion.

Out of greed or out of need,
 They often let you mislead.
 They may bluff as well pretend,
 Up onto the motive, their acts may amend.

You may be one, who they deceive,
 On them whom you'd easily believe.
 Reason being mostly they are self-centered,
 Hiding their true intentions from the world.

All these illusions can't remain perpetual,
 For they certainly aren't real..!
 In the dark even shadows leave,
 And rippling waters make your image cleave.
 The magic tricks in real life just can't work,
 Mirrors when break serve no longer a visual perk.

Along with time outer beauty fades away,
 For unrighteous intentions people have to pay.
 Love is temporary indeed,
 May wither off just as any weed...

So the world is full of fantasies,
 But we need to recognize the realities..!!



Arti C. T.Y.B.Pharm.

EFFECTS OF DRUGS

Over dose of histamine causes histamine shock,
 Nifedipine, verapamil causes calcium channel block.
 Caffeine is a CNS stimulant, which stimulate our brain,
 Antipyretic & analgesic cure fever and relief our pain.
 Sedatives & hypnotics cause CNS depression,
 Heroin, cocaine decrease motion and increase our tension.
 Levodopa, sinmet increase anti Parkinsonism effect,
 For treatment of psychosis, tranquilizers are perfect.
 Atenolol, propranolol can decrease hypertension,
 Atropine, morphine used in pre-anesthetic medication.

Salbutamol used to treat asthma and heartblock,
 Adrenaline reduces hypoglycaemia & anaphylactic shock.
 Digitalis is used to treat atrial fibrillation,
 Nitrates can cure angina pectoris and myocardial infarction.
 For treatment of nephrosis a good diuretic is thiazide,
 Congestive cardiac failure is treated by sodium nitroprusside.
 Sulphonamides are used in pharyngitis and toxoplasmosis,
 Gentamicin has a good action in abdominal and pelvic sepsis.
 Bacterial antibiotics kills bacterial germ,
 Oxytocin indication is induction of labour in term.



Sadhana S. S.Y.B.Pharm.

MOST AND GREATEST THINGS!!!

- The most destructive habit..WORRY
- The greatest joy..GIVING
- The greatest loss..LOSS OF SELF RESPECT
- The most satisfying work..HELPING OTHERS
- The most ugly personality trait..SELFISHNESS
- The most effective sleeping pill..PEACE OF MIND
- The greatest problem to overcome..FEAR
- The most crippling failure disease..EXCUSE
- The greatest 'shot in the arm'..ENCOURAGEMENT
- The most powerful force in life..LOVE
- The most dangerous pariah..A GOSSIPER
- The world's most incredible computer..OUR BRAIN
- The greatest asset..FAITH
- The greatest natural resource..OUR YOUTH
- The worst things to be without..HOPE
- The most power filled words..I CAN
- The deadliest weapon..THE TONGUE
- The most worthless emotion..SELF PITY
- The most beautiful attire..SMILE
- The prized possession..INTEGRITY
- The most contagious spirit..ENTHUSIASM
- The most powerful channel of communication..PRAYER
- The most important thing in life..GOD.



Apoorva M. F.Y.B.Pharm.

THE FIRE INSIDE

When all is lost and hope has fled
 When fear is strong and strength is dead
 When love and joy abandon you
 When mental anguish grows in you
 When the last of efforts fail to save
 When your fate is ill, your mind enslaved
 And when your head hangs low in misery
 This is when you'll find the key
 A single ember from deep within
 Burns hotter and hotter, as flames begin
 The fire of truth will light the way
 And help you fight, this lonely day
 The battle is long, the struggle is rough
 Never regret not giving enough
 For when we offer our very best,
 Our very soul is put to the test
 Stand tall and true and you'll prevail
 Just hold on tight and never bail
 You will survive if you don't quit
 Victory is there, if you reach for it
 One day in the future, you will look to the past,
 And know you had what it takes to last
 So never give up and good things will come,
 Not just honor and pride, but a job well done.



Sayali P. T.Y.B.Pharm.

ଆଜ୍ଞାନୁଧ୍ୟାୟ

मोबाईल शिवाय जीवन

एकविसाव्या शतकात मोबाईल हा प्रत्येक व्यक्तीच्या जीवनातील एक अविभाज्य घटक बनला आहे. आजच्या जीवनातील मोबाईल हा अनिवार्य भाग होऊन बसला आहे. दहा वर्षांपासून तो शंभर वर्षांपर्यंतच्या प्रत्येक व्यक्तीने मोबाईलला आपल्या जीवनातील एक जीवनावश्यक घटक बनवलेले आहे. आजची युवा पिढी तर संपूर्ण वेळ मोबाईल मध्येच मग्न असते. मोबाईल शिवाय जीवन म्हणजे आजच्या पिढीसाठी तितकच भयानक आहे, जितक 'पाण्याशिवाय जीवन जगणे' असतं.

मानवाला जीवन जगण्यासाठी काही जीवनावश्यक वस्तुंची गरज असते. त्या जीवनावश्यक वस्तुंच्या पंक्तीत आता मोबाईल देखील जाऊन बसला आहे. पूर्वी जेव्हा एखाद्या व्यक्तीला आपल्या नातेवाईकांशी किंवा मित्रमंडळींशी संवाद साधावयाचा असल्यास त्यांना पत्र लिहून ते पत्र पोस्ट ऑफीसमध्ये द्यावे लागे. मग कुठे जाऊन ते पत्र दोन-तीन किंवा जास्त दिवसांनी त्या व्यक्तीपर्यंत पोहोचायचे व मग तो त्याचे उत्तर पत्र लिहून द्यायचा. परंतु काळ बदलत गेला व मानवाची हळूहळू प्रगती झाली व त्याने मोबाईल या वस्तूचा शोध लावला. मोबाईलचा शोध लागल्याने संपूर्ण परिस्थितीच बदलून गेली. जेथे एक पत्र पाठवून त्यांचे उत्तर मिळवण्यासाठी 5 ते 7 दिवस लागत असत. तिथे आता पाच ते सात तर सोडा पाच ते सात मिनीटसुद्धा लागत नाहीत आणि पैसा देखील वाचतो. पूर्वी एक पत्र पाठविण्यासाठी तीस ते पंचवीस रूपये लागायचे पण आता मोबाईल आल्यामुळे पैसे देखील कमी लागतात. सर्वात महत्त्वाची बाब म्हणजे 'वेळ'. आजच्या जगात वेळ खूप महत्त्वाचा मानला जातो. मोबाईलमुळे आपला वेळ देखील वाचतो व आपल्याला कोणत्याही व्यक्तीशी संवाद साधता येतो, हा मोबाईलमुळे होणारा सर्वात मोठा फायदा. ज्या काळात मोबाईल या वस्तूचा शोध लागला तेव्हा एक साधा मोबाईल होता फक्त फोन लावा व आलेला फोन उचला. पण नंतर त्यात बदल झाले व नवीन नवीन फंक्शन यात येत गेले. कॅमेरा हा देखील यातलाच एक प्रकार आहे. ज्या श्रीमंत लोकांची कॅमेरा घ्यायची ऐपत आहे ते कॅमेरा घेतात पण गरीब लोक या सुखापासून वंचित राहतात.

मोबाईलचा सर्वात मोठा प्रचंड महत्त्वाचा उपयोग म्हणजे इंटरनेट. जगातील संगणक शास्त्रज्ञांनी इंटरनेटचा शोध लावला तो संगणकाच्या मदतीने. त्या काळी संगणक होते म्हणून त्यांनी मोबाईल असल्यामुळे मोबाईलवर इंटरनेटची सेवा देखील सुरु झाली. त्यामुळे जगाने प्रगतीच्या नव्या पायरीवर पर्दापण केले. इंटरनेटमुळे आपण घरबसल्या पाहीजे असले सर्व श्रेत्राची माहिती मिळवू शकतो. आपण सामाजिक, आर्थिक, राजकीय, शैक्षणिक, क्रिडा तसेच मनोरंजन या तसेच आणखी अनेक श्रेत्रातील माहिती मिळवू शकतो. हे सर्व मोबाईल मुळे होणारे उपयोग आहेत पण मोबाईलचे काही दुरुपयोग देखील आहेत. जितका फायदा आपल्याला मोबाईलमुळे होतो तितकाच तोटा देखील होतो.

आपण जर मोबाईलमुळे होणारे फायदे बघितले तर मोबाईल शिवाय जीवन हे अतिशय खडतर व कठीण बनून जाईल. आपल्याला नातेवाईकांना पत्र पाठवावे लागेल. शिवाय जुलै 2013 मध्ये बंद झालेली तार सेवा देखील पुन्हा सुरु करावी लागेल. आपल्या ज्ञानाचा दर्जा देखील खालावेल. आजची युवा पिढी तर प्रगती पासून दुर होत जाईल. पण हाच मोबाईल जो आपण वापरतो, त्यामुळे युवा पिढी ही वाईट वळणाकडे देखील जात आहे. मोबाईल मध्ये इंटरनेट हा प्रकार अतिशय लोकप्रिय आहे. इंटरनेट प्रकार जितका फलदायक आहे, तितकाच हा प्रकार हानीकारक देखील आहे.

कोणत्याही पालकांना तुमची मुलाबद्दल मुख्य तक्रार कोणती? असे विचारले, तर सर्व पालक अक्षरशः एकमुखाने एकच तक्रार सांगतात... 'आमची मुल मोबाईलला डोळे चिटकवून बसतात किंवा मोबाईल कडून हलत सुद्धा नाहीत किंवा सकाळी उठल्यापासून मोबाईलवर गाणे ऐकत असतात...' आणि विशेष म्हणजे ते शंभर टक्के खरे आहे.

मोबाईलच्या जगात रमणारे हे विद्यार्थी विद्येपासून दुर होतात. इंटरनेटच्या काल्पनीक जगात रंगतात आणि वास्तव्याचे भान हरवून बसतात. त्याला जबाबदार आहे मोबाईल इंटरनेट! अशा प्रकारे युवा वर्ग मोबाईलकडे आकर्षित झाला आहे. हे मोबाईलमुळे होणारे फायदे व तोटे आहेत. मोबाईल वापरण्याने आपल्याला 50 टक्के फायदा व 50 टक्के तोटा होतो.

मोबाईल शिवाय जीवन जगणे अतिशय कठीण असते. मोबाईल शिवाय जीवन हे आपले पुर्वीचे जीवन बनून जाईल व आपली प्रगती नाही तर अधोगती होईल. जगाच्या बरोबरीने चालायचे असल्यास मोबाईलचा वापर करावाच लागेल. हे देखील बरोबर आहे की मोबाईलमुळे युवा पिढी वरील संस्कार बिघडत चालले आहेत.



Rutuja P. F.Y.B.Pharm.

आपली मुंबई

मुंबई म्हणून की, इतर कोणत्याही परंप्रांतीय व्यक्तीसारखी एखाद्या नवीन संधीच्या शोधात मी फक्त तुलाच भेटायला आले. भयानक पावसाळा नुकताच सुरु झाला होता; अरबी समुद्रावर पावसाच्या पाण्याच्या थरांनी ढकलले जाणारे राखाडी ढग खाली तरंगत होते. आक्रमक वाऱ्यांनी हबकलेली मी, रिझर्व्ह बँकेच्या भव्य इमारतीबाहेर थरथरत उभी राहिले. आज, मी तुझा निरोप घेताना, मी माझ्या 'अंतर्बाह्य स्वरूपाच्या आठवणी'चा पुन्हा शोध होते. पश्चिम युरोपातील शिल्पशैलीसारखी रचना असलेले एसिँटिक ग्रंथालयाचे भव्य स्तंभ फोर्ट विभागातील दिमाखदार इमारती. जेथे मी रंगभूमीवरिल अनेकविध कार्यक्रमाचा आनंद घेतला आहे, NCPA चा (जुन्या काळापासून अस्तित्वात असलेले) कार्यालय, आकाशाला भिडणाऱ्या उंच इमारतीचा पसारा आणि वाऱ्याने लवणारी, वादळास स्वतःला सावरत पूर्वास्थितीत येण्याची कला आणि लवचिकता शिकवणारी ताडाची झाडे, किनाऱ्यांवर असलेले रूंद रस्ते आणि मुंबईच्या निसर्ग दृष्ये मनात साठवण्याकरीता, जिच्या पायऱ्या मी धडपडत चढत असे, ती बीईएसटीची दुमजली बसगाडी, ओठावर नेहमीच स्मितहास्य आणणारा विल्सन कॉलेजजवळच्या अमूलच्या जाहिरातीचा मोठा फलक चर्चगेट झुजारपणे झगडत विजयानंदाने मिळवलेली चौथी बैठक (आसन).

मुंबईचे मुख्य आणि प्रख्यात म्हणून की, तेथील वाढती लोकसंख्या व रेल्वे स्थानकावरील गर्दी पूर्ण भारताशी तुलना केले तरी, मुंबईच्या रेल्वे स्थानकावरील गर्दी अरम्य असते. दिवसें दिवस ही गर्दी वाढत आहे. दुसरे म्हणजे मुंबईचा डबेवाला, पूर्ण मुंबई शहराच्या लोकांच्या हातभार म्हणून असणारा हया दोन गोष्टी मुंबई शहराचे नाव वाढवणाऱ्या मुख्य शब्द !

जहांगिर आर्ट गॅलरी, स्टेट बँक ऑफ इंडियाची इमारत आणि जवळच असलेले खिशाळा परवडण्यासारखे अन्नपदार्थ उपलब्ध करून देणारे उपाहारगृह, रस्त्यावर मिळणारे अद्भूत भेलपुरी, पाणीपुरी, पिझ्झा, वडापाव हे खाद्य पदार्थ! जे लोक आपल्याला कधीच भेटण्याची शक्यता नसते, परंतु तरीही जे जुन्या मित्रांप्रमाणे वाटतात, अशा लोकांविषयी लिहलेले बॉम्बे टाईम्सचा तिसरे पान वाचण्याचा आनंद विसरता येण्यासारखा नाही. मेट्रो ट्रेनच्या प्रवास हा सगळ्यांना परवडणारा आहे. अंधेरी या स्थानकापासून निघणारा हा प्रवास फक्त तीस रूपया मध्ये व्यक्ती करू शकतो. जेथे तुम्हाला तासन् तास पुस्तके चाळता येतात, असे स्टॅन्ड, बुक स्टोअर आणि एखादे पुस्तक घेण्याची तीव्र इच्छा असुनही (खुप किंमत वाटल्यामुळे) तुम्ही ते खुप ठामपणे खाली ठेवतात, तेव्हा श्री. शानभाग (स्टॅन्ड बुक स्टोअरचे दवंगत

मालक आणि व्यवस्थापक) कुठूनतरी आपल्या अगदी शेजारी जादु सारखे अवतीर्ण होतात आणि ते पुस्तके सवलतीच्या खास किंमतीत देऊ शकतात. एखाद्याला जगातील सर्व विषयावरील पुस्तके वाचता येतील अशा फ्लोरा फाऊन्टन येथील पुस्तकांच्या रांगा असलेले फुटपाथ धुडाळण्याच्या आनंद कधीही विसरता येण्यासारखा नाही आणि मी कुठेही जायचे ठरवले तरी ही, तेथे माझी सोबत करणारा माझा तिव्र समुद्र असे, मग तो कोणत्याही अवस्थेत असो. विशेषतः पावसाळ्यात जेव्हा खवळलेला कुद्ध असे आणि वरळी सी फेसवर पाण्याच्या भिंतीच्या शिडकावा करीत असे. माझे मित्र हरपले आहेत. काही दिवंगत झाले आहेत. काहीजण दूर गेले आहेत. अनेक जण असे होते की, आम्ही ट्रेन मध्ये एकत्र बसलो होतो किंवा लिफ्टमध्ये बसलो भेटलो होतो. तरी त्यांची नावे मला कधीच समजली नव्हती.

प्रत्येक परंप्रांतीप्रमाणे मी स्वतःशी निश्चय करते की, कधी न कधी मी येथे नक्कीच परत येईन. जेव्हा मी परत कधीतरी येईन, त्यावेळी मला माहित आहे की, याच प्रकारचा अनुभव मला पुन्हा येईल असे मला वाटत नाही. मुंबई हे बहुसांस्कृतिक शहर म्हणून ओळखले जाते. कारण तेथील अनुभव व मनाप्रमाणे मिळणारी वस्तू, मुंबईतील एक जास्त लोकसंख्या आणि वेगळे परिसर, भारतातील सगळ्यात वेगळा विभाग तेथील मित्रता ही कोणताही नवीन संबंध जुळून आणतात तेथील आपल्यातील प्रेम लोकांना स्वतःजवळ आकर्षित करतात.

मुंबई नगरी, तु मला तुझ्या मोहक सौंदर्याने आणि प्रखर तेजाने भक्कम भुरळ घातली आहे. या शहरापासून काही कारणास्तव दुर जावे लागले तर असे म्हणता येईल. स्वप्नांच्या शहरा, चित्रपटसृष्टीचे केंद्र असलेल्या शहरा, मी तुला आदरांजली वाहते, आज मी तुझ्या भरल्या अंतःकरणाने निरोप घेत आहे. स्थलांतरित लोक त्यांना स्वतःला आश्वासन देतील. मी पुन्हा येईन ते सर्व दिवस पुन्हा अनुभवीन मुंबईत परतुन !



Dhanashree F.Y.B.Pharm.

बाबा

आई, ताई, दादा यांच्या पुढेही एक अतूट नात असतं
त्या नात्याचं नाव असतं..... बाबा

हाताचे बोट धरून चालायला शिकवणारे
कामावरून येताना दररोज खाऊ आणणारे
पाठ दुखत असली तरी मुलाला घोडा बनून खेळणारे
आजारी पडल्यावर काळजीपोटी उराशी बसणारे

आपल्याला खेळवणारे व हसवणारे
आईने कधी मारले तर तिच्यावर रागवणारे
आपली मुले खूप मोठी व्हावी म्हणून झटणारे
आपल्या लोकांसाठीच उंच उंच अपेक्षा बाळगणारे

वाईट चांगल्यावर खूप ओरडणारे
छोटी चूक झाल्यास ती पोटात घालून प्रोत्साहन देणारे
चांगले काम केल्यावर तोंड भरून कौतूक करणारे
परीक्षेत कमी गुण मिळाल्यावर तेवढेच रागावणारे

सर्वांवर प्रेम करणारे व सर्वांना समजून घेणारे
कधी वेळ आलीच तर पाठीशी खंबीरपणे उभे राहणारे
बालपणापासून खालावल्या परिस्थितीमुळे स्वतः
कितीही संकटे आली तरी गाठला, उज्ज्वल यशाचा रस्ता

आजपर्यंत आपल्या प्रेमळ वागण्याचे
किती मोठे कर्ज दिले आम्हास मायेचे
कसे ऋण फेडू या जन्मदात्याचे.....



आई

माया ममता भारूनी जीव लावते आई
नाही जगात कोठे अशी दुसरी ममताई.

मंदिराचा कळस दिसावा अशी आईची ख्याति,
अंगणातील तुळशी प्रमाणे सांभाळते घरातील नाती.
प्रेमस्वरूप तुझे वात्सल्य तुझे स्मरण होते आई.
घराघरात दारादारात तुझे स्मरण होते आई.

वृक्ष जसे उन्हात न्हाऊनी सर्वास देते साऊली,
तसे मनी दुःख झेलुनी सुख देते माऊली.
देवाचेही भान हरपते तुझ्या ममते पाई,
हात जोडूनी देव म्हणे तुला शरण गे आई.

अर्थहिन् जीवन होता तूच देते वैभव माया,
तुझ पाहूनि या धरतीची सुख लोलूप झाली काया.
तुझ पाहूनी वेदना साऱ्या अडगळीत लपून जाई
भूक ही तुझ्या प्रेमाची शांत न होणार आई

गुंतलेले तुझे हात नेहमी असतात कामात,
तुझी अंगाई ऐकवायास चंद्र घेऊनी येई रात.
स्वप्न एक ठरावे खरे पुढल्या जन्मी मिळावी ही पुण्याई,
तुझ्याच पोटी यावा जन्म ही आस मोठी आई.



Yuga P. S.Y.D.Pharm.

अशाच एका वळणावरती

संपले कॉलेज संपले शिक्षण
निघाले मी जग शोधायला,
तोडून सर्व बंधणे,
निघाले स्वच्छंद उडायला

वाटले आता तरी जगता येईल,
मना सारखे वागता येईल,
घारी सारखे निडर होऊन
अनंत नभात उडता येईल

पण पाहिले नव्हते जग कधी,
टोचला नव्हता काटा,
ठाऊक नव्हते कुठे घेऊन जाईल भाग्य,
दाखविल कुठल्या नवीन वाटा

वाट सापडली, मन रमले,
वेळ कधी सरली मज नाही समजले
मान मिळाला, मिळाला आदर
कळत होती आता वेळेची कदर

काळ सरला, लोक बदलले,
ऋतू मागे ऋतू उलटले,
विसरले होते मी खळखळून हसणे,
गालावरच्या खळीने बंद केले दिसणे

उमजत नव्हते काय करावे,
वाटे कुठेतरी निघून जावे,
सोडून दयावे सर्व मागेच
फक्त पुढेच निघून जावे

मग दिसली एक ज्योत उमळती,
अशाच एका वळणावरती
ओढून गेले मी त्या दिशेने,
किरण दिसले मज आशेचे

त्या अशाच एका वळणामुळे
बदलून गेले जग जुने
इंद्रधनू वाटू लागले जणू
मला हे आयुष्य नवे.



Sayali P. T.Y.B.Pharm.

शब्द

रामायण घडले । महाभारत घडले ।
त्यांना कारणीभूत होते कुजके शब्द ।
म्हणून शब्द जपावा । शब्द पुजावा ।
शब्द पुसावा बोलण्याआधी ।
घासावा शब्द । तासावा शब्द ।
तोलावा शब्द बोलण्यापूर्वी ।
शब्द हेचि कातर । शब्द सुईदेरा ।
बेतावेत शब्द शास्त्राधारे ।
बोलावे मोजके । नेमके, खमंग, खमके ।
ठेवावे भान । देश, काळ, पात्राचे ।
बोलावे खरे । बोलावे बरे ।
कोणाच्याही मनाक पाहू नये चरे ।
कोणाचेही वर्म । व्यंग आणि बिंग ।
जातपात धर्म । काढूच नये ।
थोडक्यात समजणे । थोडक्यात समजावणे ।
मुद्देसुद बोलणे ही संवाद कला ।
शब्दांमध्ये झळकावी । ज्ञान, कर्म, भक्ति ।
स्वानुभवातून जन्मावा प्रत्येक शब्द ।
शब्दांमुळे दंगल । शब्दांमुळे मंगल ।
शब्दांचे हे जंगल जागृत राहावे ।
जीभेकरी ताबा । सर्वांसुखदाता ।
पाणी, वाणी, नाणी । नासूनका ।



Saurabh K. T.Y.B.Pharm.

मंजिल को पाना है

एक दिन तुझे मंजिल को पाना है,
दूर आसमान तक तुझे जाना है ।

लाख मुश्किलें आएंगी,

तेरे विश्वास को डगमगाएंगी,

इन मुश्किलों को तुझे पार कर दिखाना है,

और एक दिन मंजिल को पाना है ।

रखा है विश्वास खुद पर अगर,

फिर मुश्किल नहीं है डगर,

दुनिया तुझे झुकायेगी यहीं तुझे रूलायेगी,

इस दुनिया को तुझे कुछ बनकर दिखाना है,

और एक दिन मंजिल को पाना है ।

ठोकरें मिले जीवन में अगर,

इन ठोकरों से सीख इस दुनिया को जीत कर दिखाना है,

और एक दिन मंजिल को पाना है ।

बस तुझे मंजिल को पाना है ।



Manisha Y. Final Y.B.Pharm.

सांस्कृतिक भारत देश हमारा

सांस्कृतिक भारत देश हमारा,
हमको लगता सबसे प्यारा ।

देना बड़ो को आदर,

करना छोटो से प्यार ।

यही हमारी संस्कृति की पहचान

सांस्कृतिक भारत देश हमारा,

हमको लगता सबसे प्यारा ।

ऐतिहासिक भारत देश हमारा,

जहाँ पैदा हुए महान शिवाजी राजा,

वहाँ क्या टिकती कोई, मुघल प्रजा

गाँधीजी जब लिए लाठी तान,

स्वतंत्र हुआ अपना भारत महान,

ऐतिहासिक भारत देश हमारा,

हमे लगता सबसे प्यारा ।

खेलो मे अग्रणी भारत देश हमारा,

हमको लगता सबसे प्यारा ।

सचिन जैसा महान क्रिकेटर,

रहा खडा सदैव विकेट पर,

सानिया जैसी टेनिस प्लेयर,

उसके सामने सब है फेल्युअर

खेलो मे अग्रणी भारत देश हमारा

हमको लगता सबसे प्यारा ।

खुबसुरत भारत देश हमारा ।

गंगा जैसी पवित्र नदियाँ यहाँ

धोती सबके पाप सदा

ताजमहल सिखलाता हमकों

सदा करना सच्चा प्यार,

खुबसुरत भारत देश हमारा

हमको लगता सबसे प्यारा ।

कवियों का भारत देश हमारा,

लेखको का भारत देश हमारा,

अगर न होते संत कबीर,

कभी न बहता कविताओं का नीर,

अगर न होते तुलसीदास,

लिखता कौन सारे उपन्यास,

कवियों का भारत देश हमारा

लेखको का भारत देश हमारा ।



Omprakash G. S.Y.D.Pharm.

तेजाब हमले पर कुछ पंक्तियों

चलो ! फेंक दिया
 सो फेक दिया
 अब कुसूर भी, बता दो मेरा
 तुम्हारा इजहार था
 मेरा इनकार था
 बस इतनी सी बात पर
 फूँक दिया चेहरा
 गलती शायद मेरी थी
 प्यार तुम्हारा देख न सकी
 इतना पाक प्यार था
 के उसको समझ न सकी
 अब अपनी गलती मानती हूँ
 क्या अब अपनाओगे तुम मुझको ??
 क्या अब अपना बनाओगे मुझको ??
 जो अब दिखाई नहीं देते
 क्या सहलाओगे मेरे चेहरे को ??
 जिन पर अब फफोले हैं
 मेरी आँखों में देखोगे, आँखें डाल कर ?
 जो अब अन्दर धस चुकी हैं
 चलाओगे अपनी उंगलिया, मेरे गालों पर ?
 जिनपर पडे छालों से अब पानी निकलता है
 हाँ ! शायद तुम कर लोगे
 तुम्हारा प्यार तो सच्चा है है ना ???

अच्छा एक बात तो बताओ
 हो खयाल तेजाब का, कहाँसे आया ?।
 किसीने बताया ?
 या जहन में तुम्हारे, खुद ही आया ?
 अब कैसा महसूस करते हो तुम मुझे जला कर ?
 गौरवान्वित ??
 या पहले से ज्यादा और मर्दाना ??
 तुम्हे पता है,
 सिर्फ मेरा चेहरा जला है
 जिस्म अभी पूरा बचा है
 एक सलाह दूँ ।
 एक तेजाब का तलाब बनवाओ
 फिर उसमें मुझसे छलांग लगावाओ
 जब पूरी जल जाऊँगी मैं
 फिर प्यार तुम्हारा गहरा होगा
 और सच्चा होगा
 एक दुआ है
 अगले जन्म
 मैं तुम्हारी बेटी बनू
 और तुम जैसा सच्चा आशिक
 फिर मिले !!!



Trupti B. S.Y.B.Pharm.



Vishmita C. S.Y.D.Pharm.

क्या औरत होना गुन्हा है ???

औरत की कोमलता को
 कमजोरी तुमने समझा है,
 औरत की खामोशी को भी
 कमजोरी ही माना है ।
 एक सवाल है, मेरा जहाँ से,
 क्या औरत होना गुन्हा है ?
 औरत की चुड़ियों को
 बेडियाँ तुमने मानी है,
 जुल्म सहने की शक्ति को भी
 उसकी कमजोरी समझी है ।
 एक सवाल है मेरा जहाँ से,
 क्या औरत होना, गुन्हा है ?
 रूप अगर है सीता का तो
 औरत बनी है दुर्गा भी,
 चुडीयोंवाले हाथों ने फिर
 उठाली हैं तलवार भी ।
 साथ देती है पत्नी बनकर
 अर्धांगिनी कहलाती है
 फिर भी अग्नि परीक्षा देकर
 अपना शीतल चरित्र दिखलाती है ।
 माँ बहन बनकर अपना प्यार तो
 तुम पर बरसाती है,
 फिर भी औरत की किस्मत
 फुटी ही कहलाती है ।
 अगर कही पर इंसाफ है, तो बोलो कहाँ है ।
 एक सवाल है मेरा जहाँ से,
 क्या औरत होना, गुन्हा है ???

इंतजार है

बोमार को डॉक्टर का,
डॉक्टर को डीग्री का,
डीग्री को पढाई का,
इंतजार है

स्टूडेंट को छुट्टी का,
पेरेंट को रिजल्ट का,
स्कूल को किस का,
इंतजार है

जिंदगी की रेल में
हर कोई सवार है,
अपनी - अपनी मंजील का,
सबको इंतजार है ।

यात्रीयो को ट्रेन का,
ट्रेन को सिग्नल का,
सिग्नल को बिजली का,
इंतजार है ।

किसान को फसल का,
फसल को बारीश का,
बारीश को बादल का,
इंतजार है ।

जिंदगी की रेल में
हर कोई सवार है ।
अपनी - अपनी मंजील का,
सबको इंतजार है ।

चिडीया को दाने का,
सिंगर को गाने का,
बॉलर को विकेट का,
इंतजार है ।

संसद को भाषण का,
जंता को राशन का,
नेता को कुर्सी का,
इंतजार है ।

क्योंकि जिंदगी की रेल में,
हर कोई सवार है,
अपनी - अपनी मंजील का,
सबको इंतजार है ।



Dheeraj P. F.Y.B.Pharm.

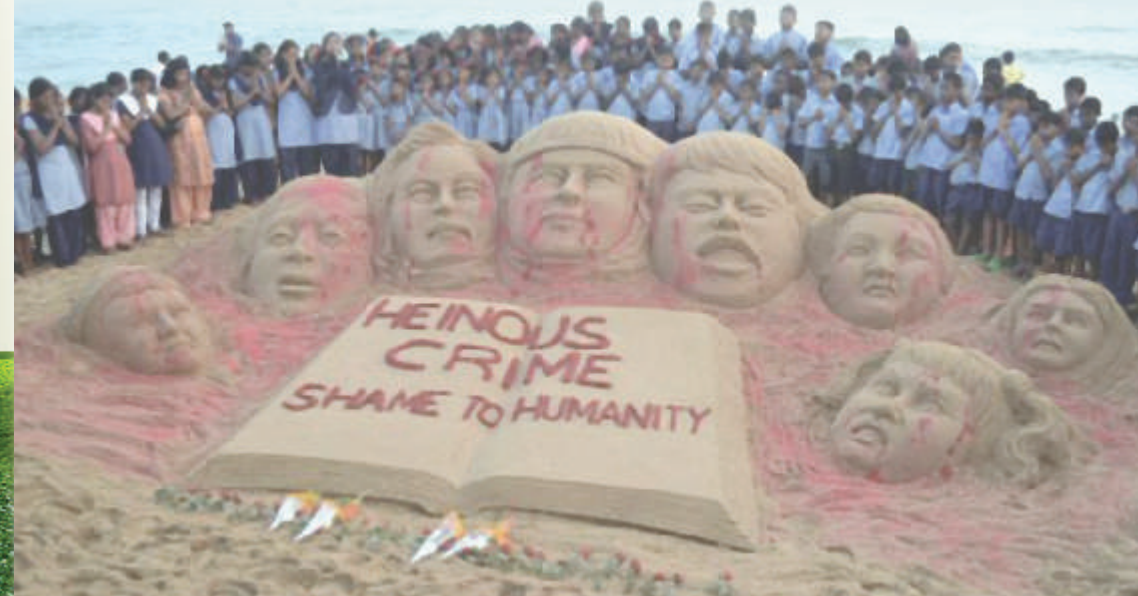
मैं स्कूल भूल चला ।

छोटे छोटे कदमों से बढ़ चला,
गिरते पड़ते मौत की ओर चला ।
कहानियों से भरी किताबें,
सच्चाई की हर दास्ताँ थी जिनमें,
मानवता की पहचान थी जिनमें,
सबको लेकर मैं स्कूल चला ।
मैं मौत के स्कूल चला ।
मेरी मिन्नत इतनी ही थी,
मुझे मारने से पहले मेरी किताबें पढ़ लेते,
शायद तुम्हारे इरादे बदल जाते ।
लेकिन तुम्हें ये भी गवारा न थ ।
तो लो मेरी जान ले लो ।
मैं खुदा के पास चला ।
मैं खुदा के पास चला ।

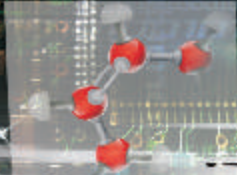
मेरे अब्बा-अम्मी को अलविदा कह देना,
मेरा रास्ता न देखें इकितलाह कर देना ।
मेरी मौत से कोई खौफ न खाना,
ख्वाहिश आखरी मेरी । यही है,
पढ़ना-लिखना रोज़ स्कूल जाना ।
अब मेरा खून बह चला ।
मैं अलविदा कह चला ।
मैं स्कूल भूल चला ।
मैं स्कूल भूल चला ।



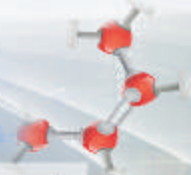
Vivek S. Final Y.B.Pharm.



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PHARMAWIZZ



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e-BULLETIN
OCTOBER, 2014

WORLD PHARMACIST DAY ON 25TH SEPTEMBER 2014



Chemist Association Palghar District (CAPD) on 25th September 2014 St. John Institute of Pharmacy and Research in collaboration with Chemist Association of Palghar District (CAPD) celebrated "Pharmacist Day" on 25th September 2014. A Rally was organized in the morning at 9:00 am from Bhavani Medical Store to Palghar Railway Station. Students also performed street plays during the rally to create awareness about the profession of Pharmacy. After the rally a program was organized at the Thane District Macchimar Society Hall, Palghar.

The Program started with welcome dance by students of First Year B. Pharm., lighting of lamp followed by felicitation of dignitaries. Mr. Abdul Khan, student of Second Year D. Pharm gave a speech on Role of Pharmacist followed by the addresses of Mr. Anis Shaikh (Chairman, CAPD), Dr. Savita Tauro (Principal, SJIPR) and Mr. Padam Sharma (President-Rotary Club of Palghar). The guest of honor Dr. Munirbhai Chandaniwala (Director, Influx Group) inspired the students by mentioning the growth of Pharma industry at global level and future need of pharmacy professionals. Chief Guest, Mr. Girish Hukare, Assistant Commissioner (Drugs), FDA, Thane, enlightened the gathering and encouraged pharmacists to participate in social activities to create a brand image of Pharmacists in society. Program concluded with Pharmacist Oath.

सेंट जॉन कॉलेज ऑफ फार्मसी एन्ड रिसर्च, पालघर येथे नॅशनल फार्मसी वीक उत्साहात साजरा



सेंट जॉन कॉलेज ऑफ फार्मसी एन्ड रिसर्च महाविद्यालयात इंडियन फार्मास्युटिकल असोसिएशनच्या निर्देशानुसार दि. 17 नोव्हेंबर ते 22 नोव्हेंबर हा सप्ताह नॅशनल फार्मसी वीक म्हणून साजरा करण्यात आला. या सप्ताहाच्या अनुषंगाने महाविद्यालयात राष्ट्रीय सेवा योजनेच्या (NSS) विभागाने सातपाटी (पालघर) येथे डेंग्यु जनजागृती व स्वच्छता मोहिम राबवली.

या मध्ये सातपाटी येथे डेंग्यु या आजारबादल प्रभात फेरी काढण्यात आली व राष्ट्रीय सेवा योजनेच्या विद्यार्थ्यांनी घराघरात जाऊन डेंग्यु या आजारबादल व तो होऊ नये म्हणून उपाययोजना, त्याच बरोबर स्वच्छतेचे महत्व पटवून देण्यासाठी विद्यार्थ्यांनी सभोवतालचा परीसर स्वच्छ केला. हा कार्यक्रम यशस्वी करण्यासाठी ग्रामपंचायत सातपाटीच्या सरपंच आणि उपसरपंच श्री. विश्वास पाटील यांनी राष्ट्रीय सेवा योजनेच्या विभागाला मदत केली.

हा कार्यक्रम राष्ट्रीय सेवा योजना समन्वयक श्री. मिलिंद कांबळे व श्री. सचिन उराडे व श्री. जिनीत गावड यांच्या नेतृत्वाखाली संपन्न झाला व महाविद्यालयाच्या प्राचार्या श्रीमती सविता टॉवरो आणि कॅम्पस डायरेक्टर श्री. थॉमस लोबो यांच्या मार्गदर्शनाखाली संपन्न करण्यात आला.

www.maharashtratimes.com मुंबई ११ सप्टेंबर २०१४ तसई-विरार/ठाणे

वक्तृत्वस्पर्धेत इंदिरा शर्मा प्रथम

म. टा. मुलखेबा, पालघर

सेंटरी कॉलेज ऑफ पालघरतर्फे सौनेपंत दांडेकर कॉलेजमध्ये 'विनायक च पयारणाचा समतोल' या विषयावर आयोजित केलेल्या वक्तृत्वस्पर्धेत इंदिरा शर्मा हिने प्रथम क्रमांक तर सेंट जॉन फार्मसी कॉलेजच्या दिनेश मेहता याने द्वितीय क्रमांक आणि सेंट जॉन इंजीनियरिंग कॉलेजची अविता रुस्तोगी हिने तृतीय क्रमांक पटकावला.

पालघरच्या सेंटरी क्लबकार्क नौन वर्षापासून विद्यार्थ्यांच्या सुस कलागुणांना वाढ देण्यासाठी वक्तृत्वस्पर्धेचे आयोजन करण्यात येत आहे. याला १८ ते २५ वर्षांमधील तरुण तरुणींसाठी 'विनायक च पयारणाचा समतोल' या ज्वलंत विषयावर या वक्तृत्वस्पर्धा घेण्यात



आली. स्पर्धेतील प्राथमिक फेरी ज्येष्ठ नागरिक भवन तसेच सेंट जॉन इंजीनियर कॉलेज व सौनेपंत दांडेकर कॉलेज येथे भर पडल्या. या स्पर्धा एकूण ४८ विद्यार्थ्यांनी भाग घेतला. अंतिम फेरीसाठी अग्रेष्ठ स्पर्धकांचा निवड करण्यात आला होता. पालघर सिटोदान फोरमचे अध्यक्ष दिनेश शर्मा यांच्या हस्ते बक्षिसे वितरण करण्यात आली. प्राचार्य डॉ. किरण पाटील, सेंटरीचे अध्यक्ष पद्म शर्मा, उपप्राचार्य डॉ. किरण राव व भागलान जयरवाल, सेंटरी क्लबचे पदाधिकारी उपस्थित होते. परीक्षण नीतिग करंडे व राष्ट्रीय दांडेकर यांनी केले.

Rank	Photo	Student Name	Location	Prize
1		Ajaykumar Nagandis Yadav	St.John Institute of Pharmacy And Research,Palghar(East)	INR 3100.00

In Conversation with Mr. Mahesh Kumar Singh



Assistant Manager - Pharmaceutical Business Intelligence
WNS Consulting Services Pvt. Ltd. Gurgoan HR
PGDBM (Marketing) from IMTCDL Ghaziabad, UP
Bachelors in Pharmacy from Dr. KNMPIER Ghaziabad, UP
PG Diploma in Scientific & Medical writing from
Nano Science & Technology Consortium Noida, UP

Q1) You completed your Bachelors degree in Pharmacy and then a PGDBM. What prompted you to pursue this double degree?

Ans. Yes, I did B.Pharm followed by PGDBM. I began my career in pharma marketing. Being a pharma graduate proved to be useful and helped me to leverage my pharma knowledge overtime. After working for couple of years in pharma marketing, I learned the fundamental of pharma businesses fairly well and decided to explore more into it. We all know that pharmaceutical industry is one of the fastest changing industries in the world and throws ample of opportunities towards commercial side of business. Pharmaceutical companies are adapting to new business models to cater to such ever changing needs. While working in WNS, I got exposure of pharma analytics and realized the power of data science - how it can transform the business decision making. This triggered in me and I decided to pursue management program that can enhance my business acumen and help me to grow overtime. Therefore, I joined PGDBM from parallel to my job. Today, I feel happy with the decision and presently working as Assistant Manager - Ops with WNS Consulting Services Pvt. Ltd. My team provides analytical support to one of the largest UK based pharmaceutical company.

Q2) How was your first job experience?

Ans. It was an outstanding experience. I started my career with Zydus Neuroscience. I joined the product team in a customer facing role. My role was to engage with health care professionals and create awareness around product portfolio of Zydus. This helped to learn the demand - supply dynamics of the market and gain 'What' 'Why' and 'Who' of pharma businesses.

Q3) Could you give us an overview of your current job profile as Pharmaceutical Business Analyst?

Ans. The role of pharma business analyst is evolving over time likewise pharmaceutical market dynamics. A pharma business analyst is instrumental in transforming various available pharmaceutical databases such as sales, promotional, medical, prescription, therapeutics and

clinical trials to name a few into meaningful insights that leads to key business decisions at Management level. My role is more as a commercial analytics manager. I have been engaging in various key initiatives like Drug Launch Programs, Brand Performance Dashboards, Pharmaceutical Market Assessment studies, Sales force Effectiveness Analysis and White Paper etc. These projects helps analyze overtime Pharma industry business performance and identifies various opportunities and challenges.

Q4) What qualities should be there in a student for the Pharmaceutical Business Analyst related job?

Ans. I believe that it goes well with the saying - Skill and will go hand in hand. It is important to have logical bent of mind with an emphasis to eye for detail. There are various business analytics tools which are used by the companies like Qlik view, Tableau, Mini Tab, SAS etc. which can easily be learned if used in the company you work in. Apart from this, strong pharma business knowledge and ability to link information with business goals can prove to be added advantage.

Q5) What are the carrier opportunities lying with this Pharmaceutical business analytics sector and what is it future?

Ans. In terms of career in pharma analytics, there is ample of opportunities available now a days in different business functions working in a collaborative environment. There can be many roles which can be taken up based on the career goal of an individual. To share few, If an individual wishes to pursue commercial roles like CAM (commercial analytics, manager) he can focus more on strengthening Pharmaceutical market knowledge, performance management techniques etc. Apart from this, one can also look up to areas like competitive and scientific intelligence, Therapy area experts which are more likely to be secondary research roles.

Q6) Your message students?

Ans. My message to the students will be that you should have the clarity in short term and long term goals. There are opportunities across functions in pharmaceuticals so it is important to know what interests you as a career option. If you are able to join in your area of interest, growth will be fueled automatically in your career.

If you have any further queries, feel free to write at mail2mahesh24@gmail.com I will be happy to answer.

Interviewed by:



Prashant C. Faculty

SJIPR TIMES



SCI-TECH

BRIEF FORUMS

Sensors to simplify blood sugar tests

Engineering students at Calicut are working on a device that can help diabetic patients to simplify, speed up and enhance their tests.

Mumbai: India has become the first country in south Asia to completely ban the import of animal-tested cosmetics, much in the 'cry' of activists who had been consistently lobbying for it.

India bans import of animal-tested cosmetics

Mumbai: India has become the first country in south Asia to completely ban the import of animal-tested cosmetics, much in the 'cry' of activists who had been consistently lobbying for it.

Humane Society International/India's 'BeCrueltyFree' campaign is also celebrating the ban. The move comes just a few months after implementation of the national ban on animal cosmetics testing in India's states.



A group of people, likely activists, celebrating the ban on animal-tested cosmetics.

'Gobi' can help improve autism symptoms

Kananiya, Srinha
Gobinestgroup.com

London: A chemical found in broccoli, cauliflower and cabbage greatly improves symptoms of autism, scientists have found.

This was found by a joint study by scientists at Massachusetts General Hospital for Children and the Johns Hopkins University School of Medicine involving 40 teen boys and young men, ages 13 to 27, with moderate to severe autism.

After 16 weeks of treatment, the average scores on two assessments - the Aberrant Behavior Checklist and Social Responsiveness Scale - of those who received sulforaphane had decreased 34 and 17% respectively.

For the full report, log on to www.timesofindia.com

The Indian EXPRESS

www.indianexpress.com

Ranbaxy to pay \$39.75 mn for litigation settlement with Texas

PRESS TRUST OF INDIA
NEW DELHI, OCTOBER 16

RANBAXY Laboratories, which has been facing regulatory hurdles in the US, on Thursday said it will pay \$39.75 million (around Rs 244 crore) in franchises to the state of Texas in the US to settle the litigation concerning its participation in the Texas Medicaid Program.

"The company has settled the litigation concerning its participation in the Texas Medicaid Program. Under the settlement agreement, Ranbaxy will make payments to the State of Texas totalling \$39.75 million in a series of tranches through August 2015."

The claims at issue related exclusively to the manner in which Ranbaxy has historically reported pricing data to Texas Medicaid for certain of its drugs, it added.

"Ranbaxy believes that it fully complied with all relevant laws, however, the company settled the matter to avoid any further distraction and uncertainty of continued litigation with the State of Texas," firm said. Last year,

Ranbaxy had paid around \$4,20,000 to the US state of Idaho as part of a \$510-million settlement.

As part of the settlement with US authorities, Ranbaxy had agreed to pay the states and the federal government \$350 million in civil damages and penalties.

This diabetes drug is activated with light

Scientists have created a drug that turns on when activated by light.

Scientists have created a drug that turns on when activated by light. The drug, which is called 'light-activated insulin', is designed to help people with diabetes manage their blood sugar levels.

Kids with older mums prone to over 200 diseases

Scientists have found that children born to older mothers have a higher risk of over 200 different diseases.

Scientists have found that children born to older mothers have a higher risk of over 200 different diseases. This includes conditions like heart disease, cancer, and mental health issues.

To help create better drugs, researchers at Imperial College London used a machine learning algorithm to predict which drugs would be most effective for treating various conditions.

Revamped RSBY to be merged with National Health Assurance Mission

Health Minister has announced the merger of RSBY with NHA.

Health Minister has announced the merger of RSBY with NHA. The move is aimed at streamlining health insurance services and providing better coverage to the population.

Stem cell therapy could help create new blood vessels

Researchers are exploring stem cell therapy to create new blood vessels.

Researchers are exploring stem cell therapy to create new blood vessels. This could be a breakthrough for treating heart disease and other conditions related to poor blood circulation.

Stem cell therapy could help create new blood vessels. This is a promising area of research that could lead to new treatments for various cardiovascular diseases.

TRENDS

Feeling sick? Google has a doc waiting on video

Tech Co is Running A Trial Programme In Which People Searching For Basic Health Info Can Chat With Medics

Google has launched a new service called 'Google Assistant' which allows users to ask questions and get answers from a virtual assistant.



A person using a mobile device, likely demonstrating the Google Assistant service.

TIMES BUSINESS

'India set to be in top 2 markets for Abbott'

Health Co Says New Plant Will Beat US Ones

Abbott is planning to set up a new plant in India, which is expected to become one of the top two markets for the company.



A portrait of a man, likely a representative of Abbott.

'New anti-TB medicine will have no side effects on the heart'

Health Co Says New Plant Will Beat US Ones

A new anti-TB medicine is being developed that is expected to have no side effects on the heart, making it a significant breakthrough.

A new anti-TB medicine is being developed that is expected to have no side effects on the heart. This is a major development in the treatment of tuberculosis.

HOW THE DRUG WORKS

Body of the new class of antibiotics called 'daptomycin'.

Although it is not the optimal drug for treating TB, it has been used successfully for the treatment of MDR-TB.

WHO says that bedaquiline can only be used in MDR-TB patients after other existing drugs have been exhausted.

Govt drugs feet on 'effective' anti-TB drug

Ministry of Health has announced the procurement of a new anti-TB drug.

The government has announced the procurement of a new anti-TB drug, which is expected to be more effective than existing treatments.

NATIONAL NETWORK

India facing shortage of life-saving albumin serum

There is a shortage of albumin serum in India, which is a life-saving drug for various conditions.

INDIA BANS IMPORT OF ANIMAL-TESTED COSMETICS

India has banned the import of cosmetics that have been tested on animals.

India has banned the import of cosmetics that have been tested on animals. This is a significant step towards animal welfare.

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Ignatius L. T.Y.B. Pharm.

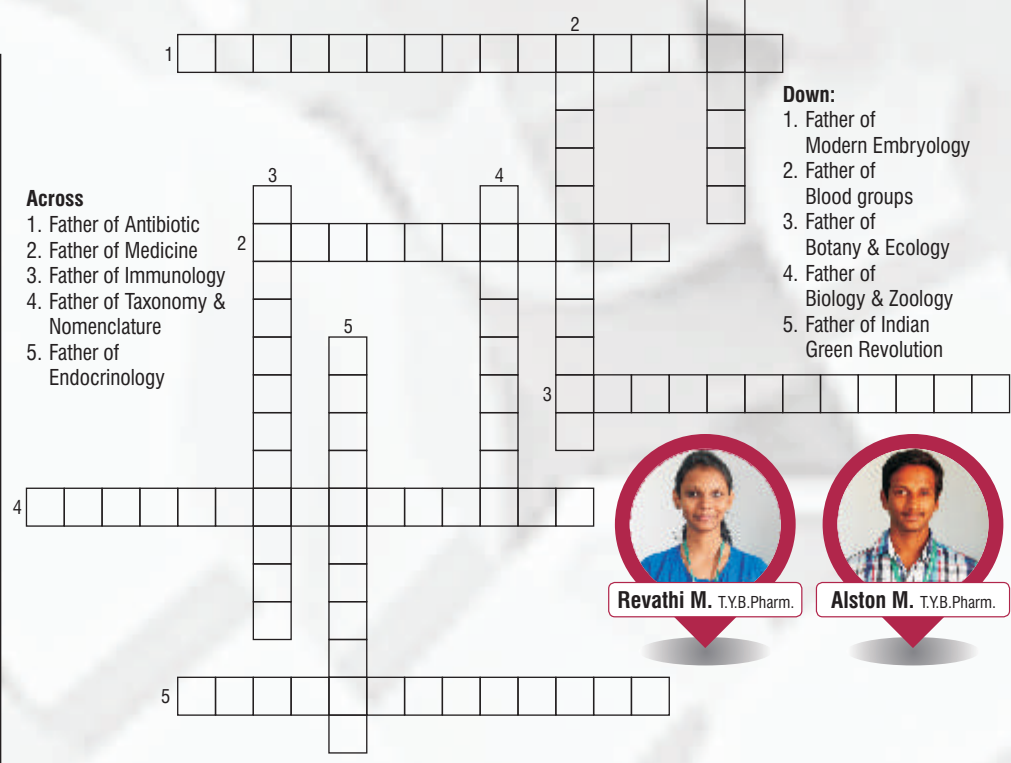


Across

1. Father of Antibiotic
2. Father of Medicine
3. Father of Immunology
4. Father of Taxonomy & Nomenclature
5. Father of Endocrinology

Down:

1. Father of Modern Embryology
2. Father of Blood groups
3. Father of Botany & Ecology
4. Father of Biology & Zoology
5. Father of Indian Green Revolution



F	E	A	M	B	O	C	H	L	O	R	I	N	E	Z
L	N	I	C	Y	M	O	N	I	T	C	A	D	L	O
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O	T	C	A	B	A	Z	I	T	A	X	E	L	E	E
R	S	T	J	A	T	X	X	Z	Z	Q	R	O	S	D
O	A	N	M	I	P	Q	O	A	L	S	R	P	E	R
U	L	I	B	L	S	E	Y	L	R	I	H	R	N	O
R	B	T	U	E	T	E	T	C	V	I	H	I	I	N
A	N	A	S	T	R	O	Z	O	L	E	C	T	T	I
C	I	L	U	R	L	L	N	Z	I	Y	H	U	S	C
I	V	P	L	O	L	Y	L	Z	M	H	T	X	U	A
L	A	I	F	Z	S	Q	M	O	W	V	T	I	M	C
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E	B	A	N	L	I	L	A	Y	A	B	U	A	A	D
R	A	X	U	E	B	M	O	X	E	S	A	B	C	Q

ANTI-CANCER DRUGS:

- | | |
|-----------------|---------------------|
| 1. FLUOROURACIL | 2. ANASTROZOLE |
| 3. AMBOCHLORINE | 4. BLEOMYCIN |
| 5. BUSULFAN | 6. LETROZOLE |
| 7. CABAZITAXEL | 8. CARMUSTINE |
| 9. DACTINOMYCIN | 10. OXALIPLATIN |
| 11. TORUMIFERE | 12. RITUXIMAB |
| 13. SYNOVIR | 14. TAXOL |
| 15. THIOTEPA | 16. ZOLEDRONIC ACID |



PHOTOTHEQUE

BACHELOR OF PHARMACY



FIRST YEAR B. PHARM. DIVISION A



**FIRST YEAR B. PHARM.
DIVISION B**



**SECOND YEAR
B. PHARM.**



**THIRD YEAR
B. PHARM.**



**FINAL YEAR
B. PHARM.**

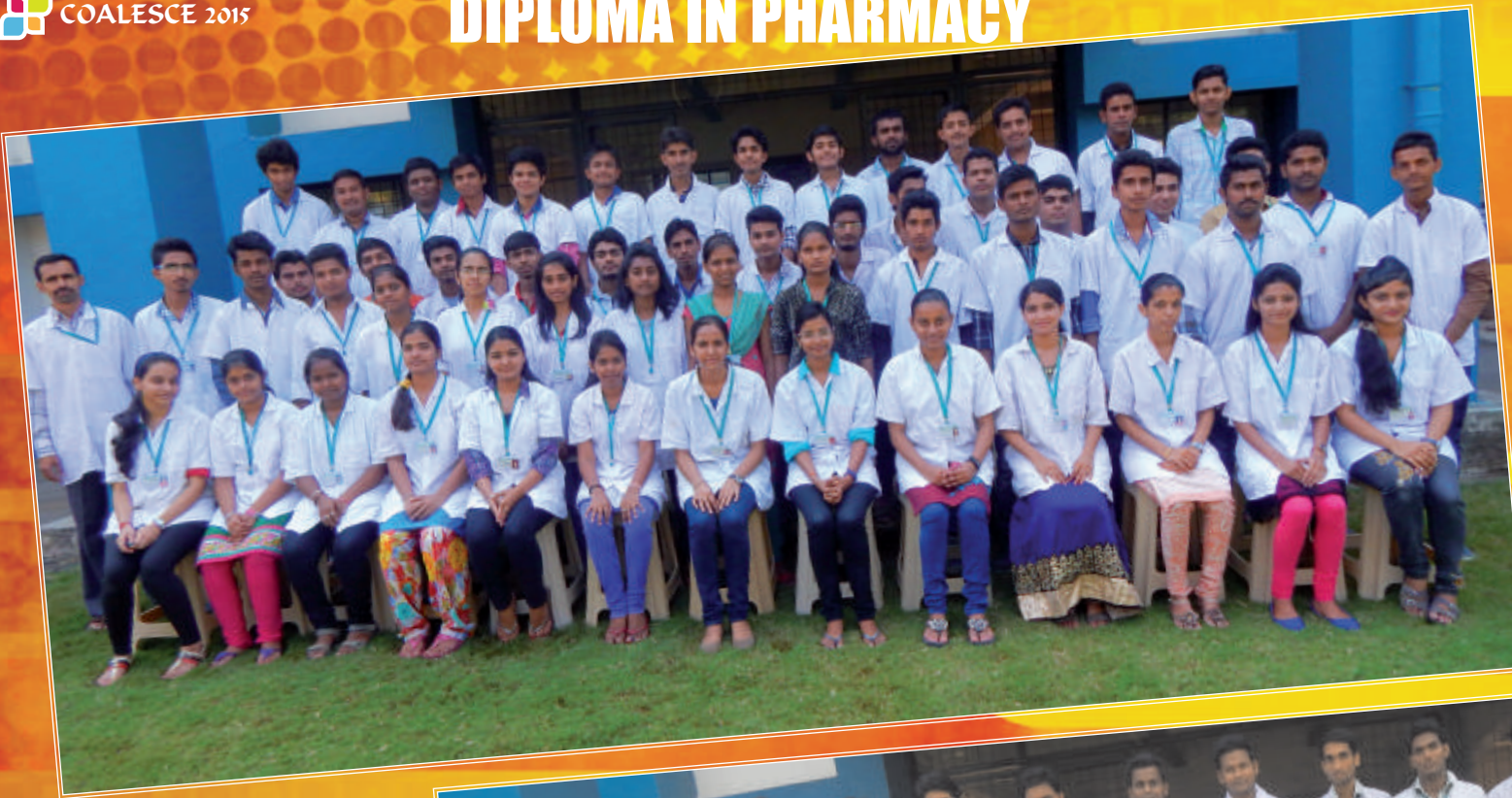


**TEACHING
FACULTY**



**NON-TEACHING
FACULTY**

DIPLOMA IN PHARMACY



**FIRST YEAR
D. PHARM.**



**SECOND YEAR
D. PHARM.**



**TEACHING
FACULTY**



**NON-TEACHING
FACULTY**

ARTISTS ADDA



Pratik Raut, F.Y.B.Pharm.



Sayali R. Churi, F.Y.B.Pharm.



Pearl R., F.Y.B.Pharm.

Sayali R. Churi, F.Y.B.Pharm.



Pratik Raut, F.Y.B.Pharm.



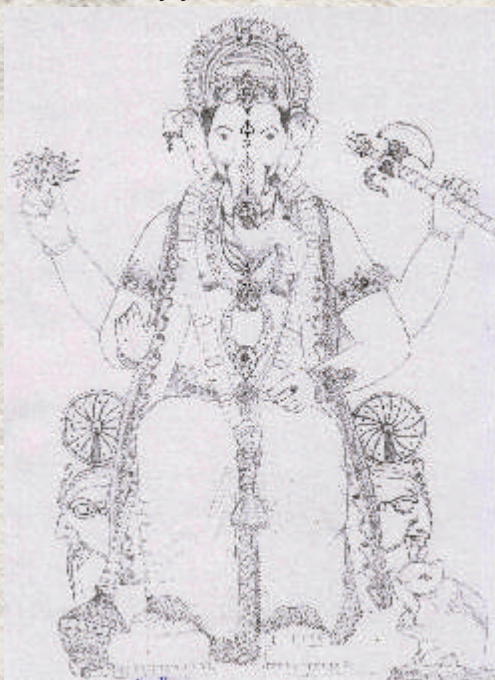


Pearl R., F.Y.B.Pharm.



Pratik Raut, F.Y.B.Pharm.

Vijay C., T.Y.B.Pharm.



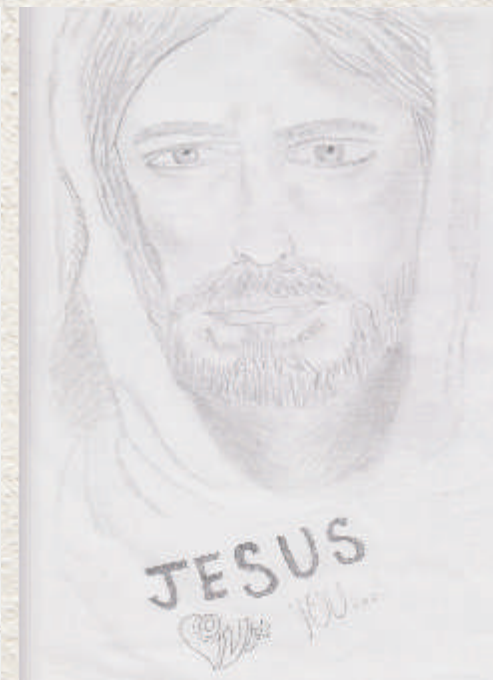
Vijay C., T.Y.B.Pharm.



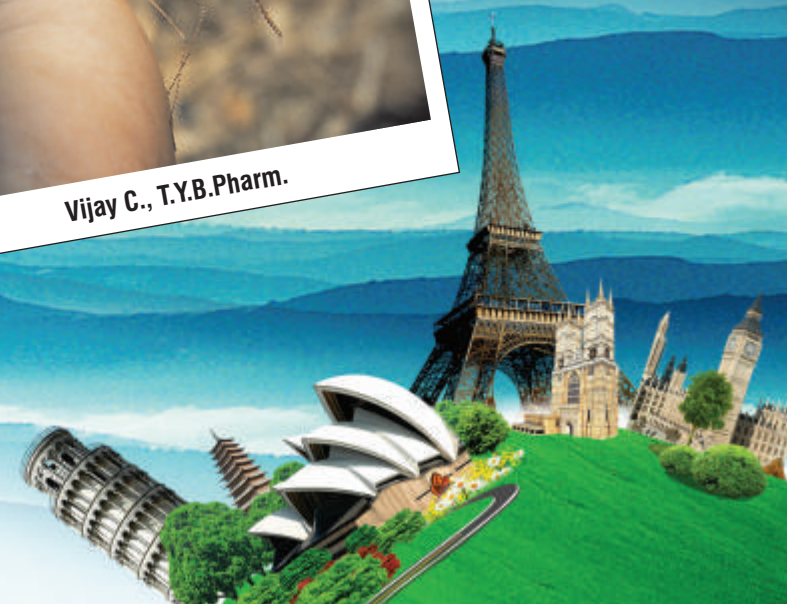
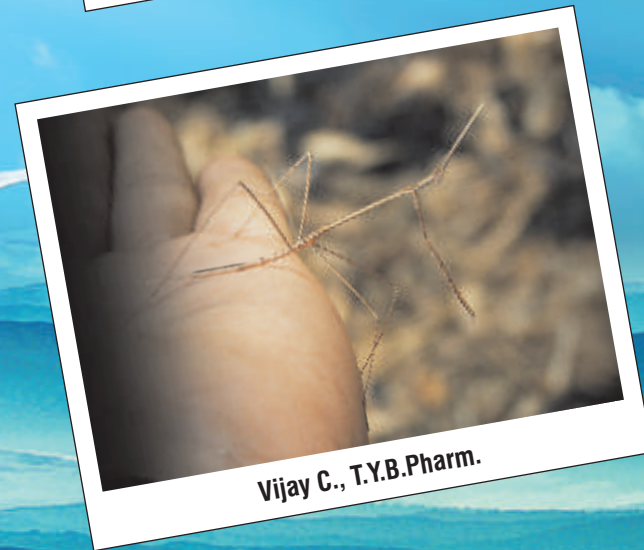
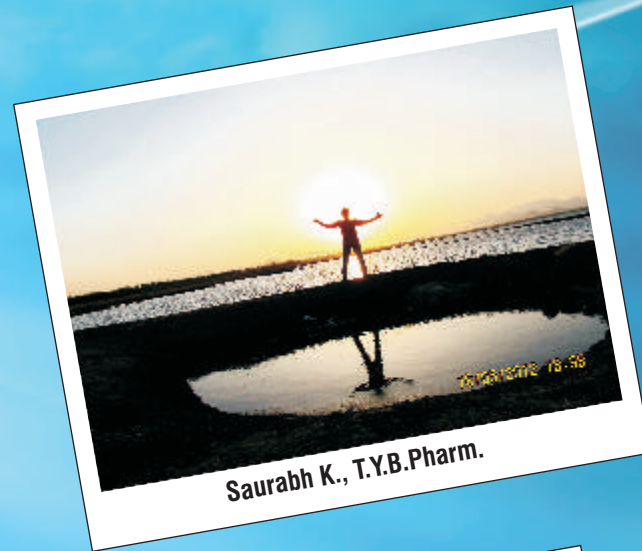
Shalaka C., Lab Assistant



Shraddha G., T.Y.B.Pharm.



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CO-CURRICULAR EVENTS





VISION

- **Serving Humanity through Excellence in Pharmacy Education and Research.**

MISSION

- **To promote quality pharmacy education and training through innovative teaching-learning process.**
- **To collaborate with industry to address challenges of quality and novel medicines**
- **To encourage innovation towards designing solutions to meet healthcare needs**
- **To contribute to the advancement of community pharmacy and public health.**
- **To empower young minds with value based education, communication and entrepreneurial skills.**

ST. JOHN INSTITUTE OF PHARMACY AND RESEARCH

(A Christian Religious Minority Institution)

Approved by AICTE, PCI, Recognized by DTE, Affiliated to University of Mumbai & MSBTE

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