

HKCP ALUMNI BULLETIN

Issue-XIII, Oct- 2014

From the Editors Desk:

Dear Alumni,

I am pleased to present the 13th issue of alumni bulletin. Within this 6 month college has celebrated so many events. From fresher party to scientific week and One day National seminar was celebrated actively. A lot of response came from student and intercollege competition was arranged for model making, poster presentation, pharma debate, pharma quiz, innovative product packaging, oral presentation and pharma treasure hunt.

The Indian Pharmaceutical industry is highly fragmented with about 24,000 players (330 in the organised sector). The top ten companies make up for more than a third of the market. Globally, the Indian pharma market (IPM) is ranked 3rd largest in volume terms and 10th largest in value terms. Besides the domestic market, Indian pharma companies also have a large chunk of their revenues coming from exports. While some are focusing on the generics market in the US, Europe and semi-regulated markets, others are focusing on custom manufacturing for innovator companies. Biopharmaceuticals is also increasingly becoming an area of interest given the complexity in manufacture and limited competition.

The 5th issue of college magazine- 'Impulse 2015' is going to be published in the current academic year. Ex-student willing to publish articles is welcome. The E-mail ID for submitting the article id hkcpmagzine1415@gmail.com.

In Success secret series the present issue carries an article "Pharmaceutical Industry in india".

As ever we always work towards giving you more and more of news about college, do send us your views and suggestions.

With best wishes

Sheela Yadav

sheel.ved05@gmail.com

Campus News:

- GMC meeting was held on 27th June 2014.
- Career prospective seminar was conducted on 12 July.
- 1st and 2nd PTA meeting was organized on 19th July and 20th Sept.
- Webinar was conducted on 18th July.
- Seminar on Industrial training was held on 24th July.
- Orientation program was organized on 2nd August.
- Independents Day was celebrated and organized by Cultural committee.
- Teacher's day was organized by student council.
- The fresher's party was celebrated and organized by Cultural committee and student council on 6th Sept.
- 6th Scientific Day "TechCrunch 2014" was programmed on 25th Sept:- many activities such as oral presentations, model making, debate and quiz competitions was organized by the scientific committee.
- National seminar was organized on 27th Sept. The topic for the seminar was "Frontiers in Pharmaceutical Sciences and Drug Discovery Innovations". That was delivered by different eminent personals.
- Poster presentation was organized on 27th Sept, having different themes and evaluated by Dr. Krishna Iyer, Dr. Mala Menon, Dr. Mahaurkar and Dr. Aruna Jadhav.
- Blood donation camp was arranged in the college by faculty Shrikant Boharupi and Amol Borade and student council on 1st Oct.
- Health campaign was headed by Shrikant Boharupi and Amol Borade and students from 1st, 2nd and 3rd year have taken part actively. Nearly 5 health campaign was covered by the student in different field.

Introduction to new faculty

Dr. SHUBHANJALI SHUKLA

TOTAL EXPERIENCE: 4.5 years (academics & research)

✓ **ACADEMICS EXPOSURE**

- Worked as lecturer in NRI institute of pharmaceutical science, Affiliated to R.G.P.V., Bhopal, MP, India from September 2008-June 2009.
- Working in H.K. College of pharmacy since March, 2014.

RESEARCH/INDUSTRIAL EXPOSURE –

- Worked as research scholar in Department of Pharmaceutics, Indian Institute of Technology, Banaras Hindu University, Varanasi, 221 005, INDIA.

EDUCATIONAL QUALIFICATIONS

Sr. No.	Course	University/Board	Year of Passing	%	Class/Grade
1	Ph. D (Pharm. Chem)	Indian Institute of Technology (BHU), Varanasi, India.	2013		-
2	M. Pharm (Pharm. Chem)	R.G.P.V., Bhopal	2008	74.13	First Class
3	B. Pharm.	U.P.T.U., Lucknow	2006	79.01	First Class
4	H.S.C.	UP Board	2001	71.0	First Class
5	GATE qualified with 96.9 percentile in 2006 & 97.4 percentile in 2009.				

PROJECT WORK

- **Postgraduate Projects:** (1) RP-HPLC method development for simultaneous estimation of Alprazolam and Fluoxetine hydrochloride in pharmaceutical dosage form.
(2) Synthesis of coumarin coupled thiazolidinedione derivatives and its bioisosters as PPAR γ agonist.
- **Project in doctoral study**
Studies of some synthetic novel 1,2-naphthoquinone derivatives as anticancer agents.

ACCOLADES

- Received **UGC Junior Research Fellowship** during M. Pharm.
- Received **UGC Research Fellowship & Jawahar Lal Nehru Memorial Fund** in Ph.D.
- Secured rank in Merit list of top 10 students in U.P.T.U., Lucknow during B. Pharm.
- 1st rank holder in M. Pharm (Pharmaceutical Chemistry), S.O.P.S., R.G.P.V., Bhopal.

PUBLICATIONS/PRESENTATIONS

Publications in peer reviewed journals

: 13 (International:11;National: 2) Impact factor: **12.5**

Presentations in conferences

: 8 (International: 5;National: 3)

Scientific reviewer

: Medicinal Chemistry Research & IJPPS

PERSONAL DETAILS

Father's Name

: Sh. Naveen Chandra Shukla

Date of Birth

: 9th Mar 1985

Marital status

: Married to Mr. Pankaj Kumar

Nationality

: Indian

Dr. Anagha Chaitanya Raut



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Ltd.,
Borivali (E), Mumbai 400 066
M: 9820285958
anagha.raut@hkcp.edu.in

Experience: 4.5 years

1. MES's H. K. College of Pharmacy, Jogeshwari, Mumbai
Assistant Professor, June 2014 – Till date
2. SVKM's Dr. Bhanuben Nanavati College of Pharmacy, Vile Parle, Mumbai
Assistant Professor, July 2011 – March 2014
3. Mumbai Educational Trust's Institute of Pharmacy, Bandra, Mumbai
Lecturer, November 2006 – February 2007
4. Nicholas Piramal India Limited's Wellquest CRO, Mumbai
Junior Manager, June 2004 – September 2004
Trainee – Analyst, December 2003 – June 2004

Education

Degree	Institute	University	Year of Passing	Class
Ph.D (Tech.)	Bombay College of Pharmacy	University of Mumbai	May 2011	Degree Awarded
M. Pharm. (Quality Assurance)	Bharati Vidyapeeth's College of Pharmacy	University of Mumbai	March 2007	First Class
B. Pharm.	Bharati Vidyapeeth's College of Pharmacy	University of Mumbai	May 2003	First Class

Dissertation Topic

PhD: Extraction, Evaluation and Formulation of Micro and Macro Molecular Phytochemicals from Indigenous Herbs

M. Pharm.: Studies on Indigenous Plant Containing Volatile Oil.

Publication/Presentations

Publication: 02
Presentations: 07
Scientific Reviewer: IJPS

Photo Gallery:



GMC meeting



Career prospective seminar



Webinar



Seminar on Industrial training



Orientation programme



Independence Day



Teachers day



Freshers Party



PTA meeting



Tech crunch



National seminar



Blood Donation camp



Success Secrets Series:

(Matrix metalloproteinase, a potential target for various drug developments, Shubhanjali Shukla)

MMPs or matrixins, a family of 25 structurally related zinc-and calcium-dependant endopeptidases, are able to degrade any one of the components of the extracellular matrix (ECM) such as collagens, proteoglycans, laminin, elastin, entactins and fibronectin. MMP activities are essential for physiological processes such as embryogenesis, reproduction, uterine involution, wound healing, general maintenance of joints, management of the blood brain barrier, organ development, angiogenesis, apoptosis, or inflammatory cell trafficking.

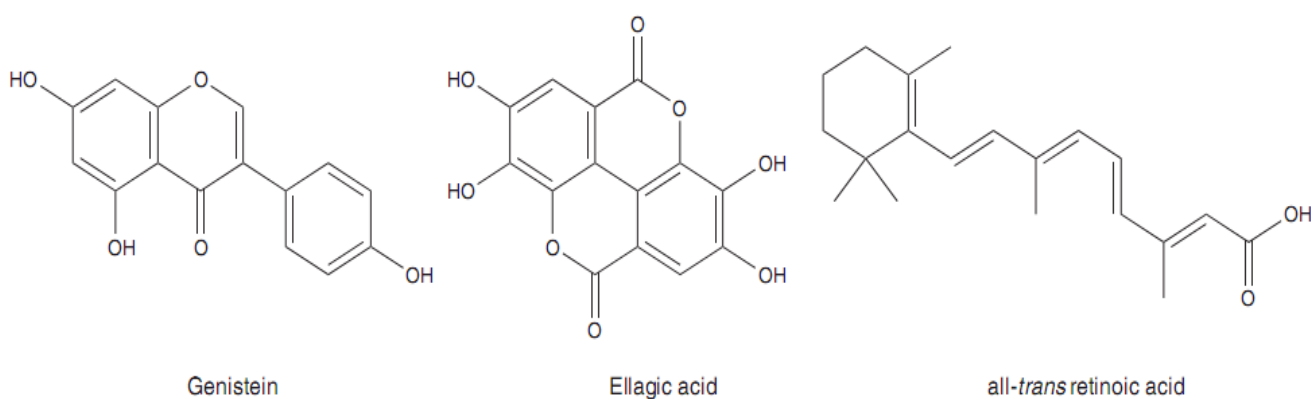
Role of Matrix metalloproteinase in cancer:

Expression of various MMPs has been found to be up-regulated in virtually every type of human cancer and correlates with advanced stage, invasive and metastatic properties. MMPs promote

growth of cancer cells by cleaving insulin-growth-factor-binding protein (IGF-BP), thereby liberating IGF and by promoting angiogenesis for nourishing of cancer cells.

MMP inhibitors as anticancer agents:

MMP inhibitors inactivate matrix metalloproteinases which cause alteration in cellular regulatory process leads to improvement in pathological conditions. Genistein, a phytoestrogen belongs to the category of isoflavone is a MMP inhibitor and used to cure hepatocellular carcinoma. Ellagic acid, a natural polyphenol, is also used to treat liver cancer. Treatment with all-trans retinoic acid down regulate the expression of MMP and used to treat breast cancer.

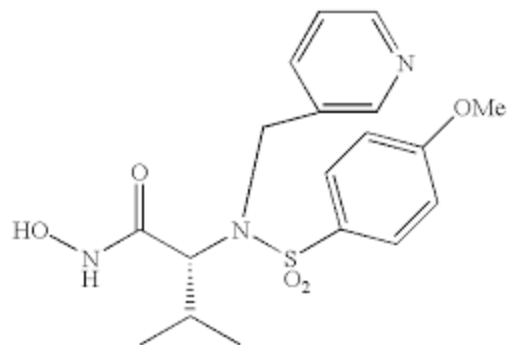


Role of Matrix metalloproteinase in osteoarthritis:

MMPs have the ability to break down connective tissue and degradation of cartilage. The expression of MMP is increased in rheumatoid arthritis and osteoarthritis. So matrix metalloproteinases (MMPs) have long been considered excellent targets for osteoarthritis (OA) treatment.

MMP inhibitors as antiarthritic agents:

N-O-isopropyl sulfonamido-based hydroxamates are selective inhibitors of MMP-13 which is a key enzyme implicated in the degradation of the extracellular matrix in osteoarthritis.



CGS 27023A

N-O-isopropyl sulfonamido-based hydroxamates

PEP1261 (di-tertbutyloxycarbonyl-L-lysine-L-arginine-L-asparticacidtert-butyl- O-tert-butyl-L-serinate), a tetrapeptide from lactoferrin, has significantly inhibited nitrite and MMP-2 levels in synovial fibroblast culture.

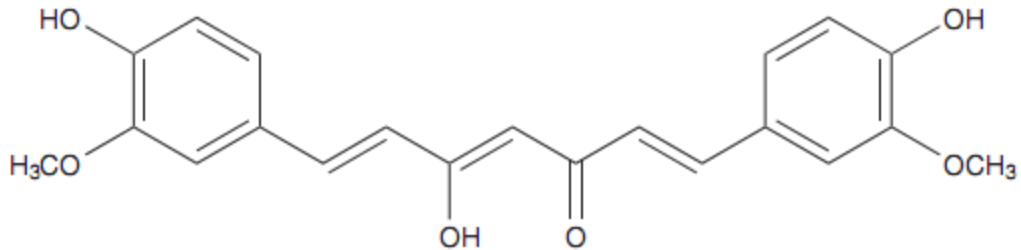
Role of Matrix metalloproteinase in ulcer:

Increased expression of MMPs has been demonstrated in almost all inflammatory diseases. Several types of cells, such as macrophages, neutrophils, epithelial cells and stroma cells, are capable of releasing MMPs in response to endogenous or exogenous stimuli, which leads to activation of tumour-necrosis factor (TNF) on the surface of cells due to metalloproteinase-mediated proteolysis, responsible for inflammation.

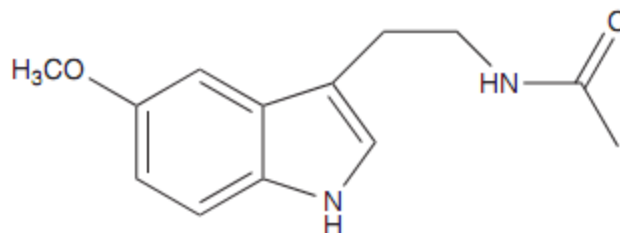
MMP inhibitors as anti-inflammatory agents:

Both oral and intraperitoneal administration of curcumin a plant constituent from *Curcuma longa*, has reduced the MMP-9 and MMP-2 activity. In addition, it has reduced over-production of Reactive Oxygen Species (ROS), tumor-necrosis factor (TNF) and interleukins (IL).

Melatonin has been known to downregulate the secreted pro MMP-2 and pro MMP-9 which is responsible for its anti-inflammatory activity.



Curcumin



Melatonin

MMP inhibitors as anti-inflammatory agents

Conclusion:

Inhibiting MMPs can be beneficial as well as detrimental to the cells owing to the inter-relationship between normal physiology and pathology; thus, targeting MMPs with broad MMP inhibitors (MMPIs) have mixed blessings. The cross-talk between signaling pathways, nuclear factors and gene regulatory elements with MMPs needs to be elucidated to discern the role of MMPs in physiology and pathology. Since MMPs were reported to play a major role in neurodegeneration, vascular cognitive impairment, destruction of blood-brain barrier, Alzheimer's disease and Parkinson's disease, it can be a potential target of various drug developments.

Book Review: Psychopharmacology: The third generation of progress

Editor: Herbert Y. Meltzer

Review by Priyanka Goswami

This book is an extensive survey of basic and clinical neuroscience by over 300 authors containing 184 chapters and over 1800 pages. This book is all about domain Psychopharmacology. This includes utilizing drugs and other chemical agents to understand neural function, to prevent and treat mental illness, drug abuse and alcoholism; and to understand how nontherapeutic psychoactive drugs and natural substances alter human mood, mentation, motor activity, endocrine and other centrally mediated functions.

The first section is of Psychopharmacology: The third generation of progress is the Basic Neurobiology. It provides extensive consideration of the anatomy, biochemistry and physiology of monoaminergic systems, including excitatory amino acids. Further to that ethical precepts and research strategies in psychopharmacology, receptors, mechanism behind neurochemical & neuroanatomic reactions, neurotoxins, neuropeptides, structural changes and brain functions heads are discussed in précised manner.

The second section is of Biological psychiatry. It emphasizes on sleep disorders, affective disorders and psychiatric disorders like Anxiety, Dementia, Depression, Schizophrenia, Alzheimer's and their possible etiology, factors responsible and possible connection with imbalanced hormone secretions.

The third section is of Clinical psychopharmacology. This section covers diagnosis and medication, Pharmacokinetic and pharmacodynamics studies of drugs prescribed for affective disorders and their side effects. Even psychological factors responsible for individual's interest in Alcoholism, drug abuse, tobacco dependence are very well explained. Ultimate section covers how studying psychological factors of affective disorders can help to develop new drug molecules.

This book will help to educate scientists and clinicians who are encountering psychopharmacology for the first time, to broaden the knowledge of those already in the field. It is encouraging further research through an emphasis on the crucial areas of psychopharmacology where the opportunity for advancement is greatest.

Priyanka Goswami