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Pharma Insight

Newsletter



A Quarterly Newsletter from Department of Pharmacy Practice, KLE College of Pharmacy, Bengaluru

KAHER DEEMED UNIVERSITY CONDUCTED 10th CONVOCATION VIRTUALLY ON JULY 14, 2020



About college

KLE College of Pharmacy is the constituent unit of KLE Academy of Higher Education (Deemed to be University), Belagavi, which is Re-Accredited by NAAC "A" grade by UGC, up to January 2021. We are running D.Pharm, B.Pharm, M.Pharm, Pharm.D, PhD in a spacious well-equipped building of its own with hostel, library and sports facilities. The pharmacy curriculum is approved by Pharmacy Council of India (PCI) and All India Council for Technical Education (AICTE) and the UG programme is accredited by the NBA (National Board of Accreditation) and AICTE, New Delhi.

Department of Pharmacy Practice

KLE Academy of Higher Education and Research (KAHER), Belagavi has started Doctor of Pharmacy course in its constituent college, KLE College of Pharmacy, Bengaluru in the year 2014. To impart education, the pharmacy practice department is having adequate infrastructure and facilities as per the requirement of statutory bodies for the students from Doctor of Pharmacy course. All the faculty members have rich experience to make the student excel in her/his studies and suit professional opportunities in the hospital, clinical research and pharmaceutical industries.

Our department is associated with Aster CMI Hospital, Hebbal, which is located just 11 km away from the college premises. Moreover, bus facility is available from Hostel to the college and hospital.

Further, the department is keen to have collaboration with other hospitals, clinical research organizations and pharmaceutical industries towards the research projects and pharmacy practice services.

The 10th Convocation of the KLE Academy of Higher Education and Research (KAHER), Deemed-to-be-University, Belagavi was held on Tuesday, the 14th July 2020 at 11.00 AM at KLE Centenary Convention Centre, JNMC Campus, Belagavi. Shri K.Sudhakar, Honourable Minister for Medical Education, Government of Karnataka was the Chief Guest and delivered the convocation address.

Dr. Prabhakar Kore, Honourable Chancellor, KAHER and Chairman, KLE Society had presided the function.

It is for the first time that the KAHER had organized 'Virtual' convocation and streamed it on the University's website (www.kledeemeduniversity.edu.in) as well as through You-Tube / Face-Book in view of the prevailing COVID-19 situation. The video-streaming started on Tuesday, the 14th July 2020 at 10.45am and continued till the end of the convocation function.

The candidates who were declared as qualified for the award of Degree/Diploma courses before July 7, 2020 including Internship in conformity with the Rules and Regulations of the respective Regulating Councils were awarded in this convocation. The degrees and awards were conferred to the eligible candidates in absentia.

In this convocation, a total of 1398 degrees were awarded in various disciplines of Health Science including the Gold Medals for their academic achievements in their respective courses / specialities which include 44 Gold Medals, 12 Ph.D., 9 Post-Doctoral (DM/M.Ch), 400 Post-Graduate, 886 Under-Graduate, 51 Post-Graduate Diploma, 14 Certificate courses, 10 Fellowships and 16 Diplomas.

Prof. Dr. V.A.KOTHIWALE
 Registrar

COLLEGE ACHIEVEMENTS



76-100
Ranking Slot



KLE College of Pharmacy, Bengaluru was ranked in between 76 to 100 by NIRF and 7th ranked in Karnataka State.

Dr. H.N. Shivakumar has been conferred with the prestigious 'The Best Scientist Award' for the year 2020 by KLE Academy of Higher Education and Research (KAHER), Belagavi



Dr. H.N. Shivakumar is Professor and *Vice-Principal* at KLE College of Pharmacy, Bengaluru. He received his **B.Pharm** degree from Bangalore University and completed his **M.Pharm** degree in the discipline of Pharmaceutics from the Govt. College of Pharmacy, Bengaluru. He earned his Doctoral degree in Pharmacy from **Rajiv Gandhi University of Health Sciences**, Karnataka. He was a Postdoctoral Research Fellow at **Non invasive Drug Delivery Laboratory**, at the **University of Mississippi, University**, MS, USA

(http://home.olemiss.edu/~murthy/members_main.html). His Postdoctoral

research was focused on transungual delivery, transdermal delivery and

oral lymphatic delivery of therapeutics. His research interests include Chronotherapeutic Drug Delivery, Transdermal Drug Delivery, Transungual Drug Delivery and Pharmaceutical Development applying the principles of **Quality by Design (QbD)**. He has filed **eight** patents and authored **seven** Book Chapters with renowned international publishers. He has **5** review papers and more than **50** Research papers in high impact peer-reviewed Journals to his credit. He has been a consultant for implementation of principles of QbD with different Pharmaceutical Companies. Dr Shivakumar has been a Principal Investigator on several Projects funded by **All India Council for Technical Education (AICTE)**, New Delhi, **Biotechnology Industry Research Assistance Council (BIRAC)**, New Delhi, **Board of Research in Nuclear Sciences (BRNS)**, **Department of Atomic Energy (DAE)**, Mumbai, and **Vision Group of Science and Technology, Karnataka**. He is instrumental in generation of funds exceeding Rs 1 Lakh through Industrial Research and Consultancy to his department. He has been entrusted with the responsibility to establish a **Centre of Innovative Science Education and Engineering** by **Vision Group of Science and Technology, Department of Science and Technology, Govt. of Karnataka** under the CiSEE scheme at **KLE College of Pharmacy, Bengaluru** in the year 2019.

PUBLICATIONS

Type	Published	Accepted	Communicated
Research articles	2	1	1
Review article	1	--	--
*Period is May to August, 2020			

NEW DRUGS/DRUG FORMULATIONS APPROVED IN INDIA

Generic Name	Dosage form	Route& Strength	Indications	Approval Date
Centhaquine citrate	Inj	IV; 1mg/vial	Add on Resuscitative agent for hypovolemic shock	May 14, 2020
Hydrogen peroxide	Spray	0.5% w/w	Cleans, Disinfects and Deodorizes hard, non-porous inanimate environmental surfaces	May 28, 2020
Remdesivir	Powder for Inj	IV; 5mg/ml & 100 mg	Suspected or laboratory confirmed COVID-19 disease	June 01, 2020
Favipiravir	FC Tab	PO; 200mg	Mild to moderate COVID-19 disease	June 19, 2020
Propylene glycol	Eye drops	Local; 0.6% v/v	Burning and Irritation due to dryness of the eye	June 30, 2020
Pretomanid	Tab	PO; 200mg	Pulmonary extensively drug resistant or treatment intolerant, or nonresponsive multidrug resistant Tuberculosis	July 15, 2020
N-Alkyl Dimethyl Benzyl Ammonium chloride	Spray	0.105% w/w	Cleans, Disinfects and Deodorizes hard, non-porous inanimate environmental surfaces	July 31, 2020
Defetilide	Cap	PO; 125mcg, 250mcg, 500mcg	Maintenance of normal Sinus rhythm	July 31, 2020
Octyldecyl Dimethyl Ammonium chloride	Spray	6.670% w/v	Cleans, Disinfects and Deodorizes hard, non-porous inanimate environmental surfaces	August 07, 2020
PO-Per Oral IV- Intravenous Tab-Tablet FC-Film Coated Cap-Capsule Inj-Injection				

• www.cdsc.gov.in

Ms. Kesiya Kuriyan, V Pharm D.

NEW DRUGS APPROVED BY FDA

Brand Name	Generic Name	Route and Therapeutic Dose	Indications	Approval Date
TABRECTA	Capmatinib	PO, 400mg bid	Non-small cell lung cancer	May 6, 2020
RETEVMO	Selpercatinib	PO, 80mg or 40mg bid	Lung & Thyroid Cancer	May 8, 2020
QINLOCK	Ripretinib	PO, 150mg OD	Advanced Gastrointestinal-Stromal Tumor	May 15, 2020
CERIANNA	Flouroestrion F18	IV, 111 -222Mbq as 10ml or less over 1 to 2 mins	Diagnostic imaging agent in patients with breast cancer	May 20, 2020
ARTESUNATE	Artesunate	IV or IM, 120 mg initially followed by 60 mg at 4, 24 and 48 hrs	Severe Malaria	May 26, 2020
TAUVID	Flortaucipir F18	IV, 300 -1900Mbq as 30 ml or 50 ml multiple-dose vial	Diagnostic agent for patients with Alzheimer's disease	May 28, 2020
UPLIZNA	Inebilizumabedon	IV infusion, 300mg	Neuromyelitisoptica spectrum disorder	June 11, 2020
ZEPZELCA	Lurbinectedin	IV infusion, 3.2 mg/sq.m by over 60 minutes every 21 days	Metastatic small cell lung cancer	June 15, 2020
DOJOLVI	Triheptanoin	500ml of 100%w/w divided into four doses at bed time.	Molecularly long-chain fatty acid oxidation disorder	June 30, 2020
BYFOVA	Remimazolam	IV, 20mg/vial	Sedation	July 2, 2020
RUKOBIA	Fostemsavir	PO, 600mg bid	HIV	July 2, 2020
INQOVI	Decitabine + Cedazuridine	PO, Tab containing 35 mg decitabine + 100 mg cedazuridine OD	Myelodysplastic syndromes	July 7, 2020
XEGLYZE	ABAMETAPIR	PO, 16-40 mg/kg OD	Head lice	July 24, 2020
MONJUVI	TAFASITAMAB	IV, 12mg/kg on day 1, 4, 8, 15 and 22 of the 28-day cycle	Relapsed or refractory diffuse large B-cell lymphoma	July 31, 2020
BLNREP	BELANTAMAB MAFODOTIN	IV infusion, 2.5mg/kg over approximately 30 minutes once every 3 weeks	Multiple myeloma	August 5, 2020
LAMPIT	NIFURTIMOX	PO, 30mg-120mg	Chagas disease in certain pediatric patients younger than age 18 years	August 6, 2020
EVRYSDI	ROSDIPLAM	PO, 60mg/day	Spinal muscular atrophy	August 7, 2020

OLINVYK	OLICERIDINE	IV, 1.5mg/day	Manage acute pain in certain adults	August 7, 2020
VILTEPSO	VITOLARSEN	IV infusion, 80 mg/kg administered once weekly over a period of 60minutes	Duchenne muscular dystrophy	August 12, 2020
ENSPRYNG	SATRALIZUMAB	IM, 120 mg every 4 months	Neuromyelitis optica spectrum disorder	August 14, 2020
WINLEVI	CLASCOTERONE	Topical, Cream of 1%w/w	Acne	August 26, 2020
SOGROYA	SOMAPACITAN - BECO	SC, 6.7 mg/ml	Growth hormone	August 28, 2020
IM-Intramuscular; SC-Subcutaneous; IV-Intravenous; PO-Per Oral; bid-twice a day, OD-once daily				

• <https://www.fda.gov/drugs/new-drugs-fda>

Mr. Midun JM, III Pharm D

NEW MEDICAL DEVICES APPROVED BY FDA

DEVICE NAME	INDICATION	APPROVAL DATE
TREO® Abdominal Stent-Graft System – P190015	Abdominal aortic aneurysm below the renal arteries to prevent further growth and rupture	May 4, 2020
FoundationOneCDx – P170019/S011	Detects genetic variations in 324 genes (including <i>MET</i> genes) in tumor tissue, in lung cancer patients	May 6, 2020
Philips HeartStart FR3 Defibrillator and Accessories – P160028	Treat ventricular fibrillation (Sudden Cardiac Arrest) and Ventricular Tachycardia	May 11, 2020
Reactiv8 Implantable Neurostimulation System – P190021	Management of chronic low back pain associated with the muscular weakness of the lumbar multifidus muscle	Jun 16, 2020
Cobas® EZH2 Mutation Test-P200014	Identify the presence of EZH2 gene in cancer patients	Jun 18, 2020
The Arctic Front Advance™ and Arctic Front Advance Pro™ and The Freezor Max™ Cardiac Cryoablation Catheters P100010/S098	Treat patients with paroxysmal or persistent Atrial Fibrillation	Jun 23, 2020
WATCHMAN Left Atrial Appendage Closure Device with Delivery System and WATCHMAN FLX Left Atrial Appendage Closure Device with Delivery System- P130013/S035	Atrial fibrillation (Non-valvular atrial) by preventing blood clots in Left Atrial Appendage	July 21, 2020
VENTANA HER2 Dual ISH DNA Probe Cocktail P190031	Detects number of copies of HER2 genes in breast cancer tissue samples	Jul 28, 2020

Neuroform Atlas® Stent System – P180031/S001	Neurovascular embolization in the anterior and posterior circulation of the brain in patients (adults) with sacular wide-necked brain aneurysm	Jul 30, 2020
Guardant 360 CDx-P200010	Blood test for patients with non-small cell lung cancer for the detection of genetic mutation found in circulating cell-free DNA	Aug 7, 2020
Kendall™ Multifunction Defibrillation Electrodes - P190007	Automated External Defibrillator (AED - Set of sensors that are attached to a compatible <u>defibrillator</u> and then placed on a person experiencing cardiac arrest to detect and help correct ir regular heartbeats.	Aug 7 , 2020
SYNERGY Everolimus -Eluting Platinum Chromium Coronary Stent System (Monorail and Over -The-Wire) – P15003/S058	Stentintended to treat a narrowed blood vessel (coronary artery) caused by disease. The stent is coated with the drug <u>everolimus</u> and a thin coating of poly (lactic-co-glycolic acid) (PLGA), a material that dissolves into the body.	Aug11,2020
LIAISON XL MUREX HBsAg Confirmatory test - P190017	Detects Hepatitis-B surface antigen (HBsAg) in patients with hepatitis B virus infection	Aug 29, 2020
Edward SAPIEN 3 Transcatheter Heart Valve System with Edwards Commander Delivery System-P200015	Replace a failing pulmonary valve in patients with congenital heart defects without open-heart surgery	Aug 31, 2020

•<http://www.fda.gov/medical-devices>

Ms. Winny J, III Pharm D & Ms. Merlin SM, V Pharm D

ALUMINI EXPERIENCE

Finding the right path to success at the right time is really very important and for that way I had selected KLE College of Pharmacy, Bengaluru (KLECOP). The friendly environment, the systematic approach towards imparting education at KLECOP made me a competent individual today.

The wide range of activities, both curricular and co-curricular, along with the support from KLECOP is really very helpful for my future too. The faculties are really very kind and approachable when any need arises. In KLECOP, we are trained for our placements and because of that I was placed in one of the reputed hospitals for my internship. I truly appreciate every single learning experience at this college. The professors here push you to utilize your knowledge so that you can deeply understand and not just memorize.

I have grown socially, professionally and academically thorough my experiences at this campus.

The culture at KLECOP fostered the sharing of ideas, critical discussions, and collaboration among the students and faculty across a wide range of interests. I think it is rare to find (if not unique to KLECOP) to have a large group of people with entirely different methodological and theoretical backgrounds enthusiastically discuss a common topic. What I loved about the KLECOP faculty was that they always entertained new ideas no matter where they came from.

I use the knowledge and skills I learned in KLECOP every single day at my work!

Dr. Jeeba C

Clinical Trial Associate, IQVIA, Bangalore

Role of Digital Apps In Diabetes With Its Benefits, Recommendations And Challenges; A Report Of European Association The Study Of Diabetes And American Diabetes Associations



Digital and health apps are playing a vital role in the digital health technology, among which Diabetes is at top choice. It helps in various ways like by providing certain interventions in medications adjustment based on the glucose levels and life style modifications.

Though today there are few documented evidences available even though associations like European Association the Study of Diabetes (EASD) and American Diabetes Associations (ADA) has conducted a joint study on the monitoring the clinical validity on patient’s safety. It was found that in European and American countries shown a very positive response towards these digital applications.

Roles and Responsibilities of Regulatory Authorities:

FDA helped in the growth of these digital health apps with strict guidelines. These digital health apps help in calculating the insulin doses and also ease in organising and providing health and nutritional data. These guidelines were updated when US congress passed 21st Century Act in the year 2016.

WHO provided the most recently available resources in support of intense use of these digital health apps. In the year 2018, WHO published “Classification of Digital Health Interventions V1.0”.

Difficulties Faced by Diabetes Community:

1. Appropriate evidences
2. Proper training
3. Accuracy and quality
4. Technological issues
5. Data privacy

In conclusion, digital health apps made easefor the people who are at risk or suffering from diabetes. Moreover they help in creating the awareness towards the self-management of the disease such as diabetes mellitus.Though with certain challenges, these digital apps giveprecise guidelines, consistency and ease accessibility, investments and accuracy in data collections.

- www.who.int/geo/publications/geo_mhealth_web.pdf
- Diabetes education 2008;34:445
- www.fda.gov/medical-devices/artifical-pancrease-device-system

Dr. Praveen Kumar, Clinical Pharmacologist,
Aster CMI, Bengaluru

INTERESTING HUMAN BODY FACTS

Nerve Impulses travel at over 400 km/hr (249 mi/hr).

A sneeze generates a wind of 166 km/hr (100 mi/hr), and a cough moves out at 100 km/hr (60 mi/hr).

When we touch something, we send a message to our brain at 124 mph

ROLE OF CLINICAL PHARMACISTS IN ONCOLOGY AREA

Oncology clinical pharmacists play an important role in the delivery of care for individuals living with cancer. As an integral part of the cancer care team, oncology pharmacists represent a broad range of expertise and levels of practice, skills and responsibilities.

Direct Patient Care and Associated Clinical Activities

Oncology pharmacists are involved with the care of cancer patients at all phases of their treatment; from assessment to treatment decisions, medication management, symptom management and supportive care, and finally with survivorship programs at the completion of their treatment. They work with other care providers to ensure a current and accurate medication list, select the most appropriate therapy, monitor the effects of medications prescribed, and manage the adverse effects that often accompany cancer treatment. As the care of cancer patients continues to be challenged with high cost therapies, medication shortages, regulatory requirements and dwindling reimbursement, the oncology pharmacist is heavily relied upon to provide support for the clinical team in an effort to improve overall cancer care and patient quality of life.

Oncology pharmacists:

- Are responsible for ensuring safety in the compounding and dispensing of the chemotherapy, maintaining an adequate supply of medications, minimizing drug waste, minimizing unnecessary exposure to hazardous drugs, and managing cost and reimbursement for cancer drugs.
- Are viewed as the “cancer medication experts” who focus their time in providing direct patient care, patient education, and actively participating in clinical decision making.
- Work collaboratively with other health care professionals to develop institutional guidelines and make evidence-based decisions designed to improve the patient care.
- Participate in committees to improve the safety, efficacy, and quality of cancer care and are

heavily relied upon to develop policies and implement programs to ensure the safety of staff and patients during the preparation, administration and monitoring of anticancer agents.

- Have training and expertise that places them in an optimal position to provide medication management services across the care continuum for most common patient complications: pain management, nausea/vomiting, diarrhea, anemia, depression, fatigue and other minor ailments

Patient and Health Provider Education

Because of their expert knowledge of medications used to treat cancer and its associated side effects, oncology pharmacists often play a key role in the education of other health care providers, patients, and their caregivers. This role includes development of:

- Educational materials and programs for providers detailing the medications used to treat cancer and its complications, potential drug interactions, adverse effects and the effective symptom management.
- Educational materials for the patients and caregivers in a format that make easy to monitor and report the treatment concerns, to understand proper handling and disposal of chemotherapy in their home, and how to limit chemotherapy exposure to family members, children, and pets.
- Tools and programs to improve the medication adherence with complicated regimens, including dosing calendars and medication journals.

Expanded Opportunities for Oncology Pharmacists:

The role of an oncology pharmacist in a hospital is well established. Areas for growth include:

- Establishing a greater presence and a consistent role in the outpatient clinics, infusion centers or other settings.
- Developing medication therapy management (MTM) programs.
- Developing independent prescribing protocols.

- Developing a role in cancer prevention and survivorship issues as they relate to drug therapy.

Conclusion

The knowledge and skills of an oncology pharmacist support a wide variety of functions in all aspects of patient care; from the bedside to implementing policies and from primary research to influencing other clinicians in the selection and management of anticancer therapies.

The oncology pharmacist is often one of the few team members that fully understand the safety, efficacy,

pharmacological and financial components of the patient care in individuals with cancer.

The changing landscape of health care and evolving approach to cancer care will emphasize the need for the oncology health care team to include an oncology pharmacist.

Ms. Rinju Raj, Pharm.D. Intern

- www.oplelibrary.com
- www.medscape.com

Section Editor : Mrs. Arvinder Kaur



KLE NSS Initiatives under the Dynamic Leadership of Dr. Raman Dang (NSS Chairman and Principal) and Dr. Mamatha.A (NSS Programme Officer and Professor)



Preparation of sanitizer by NSS volunteers and distribution to the public, thermal screening of public, distribution of masks and sanitizer to staff and public was conducted on May 28, 2020.



20 NSS volunteers of our college prepared around 15L of sanitizer and distributed to the public. They also volunteered in thermal screening of the public. Masks and sanitizers were also distributed to all teaching and non teaching staff of the college.

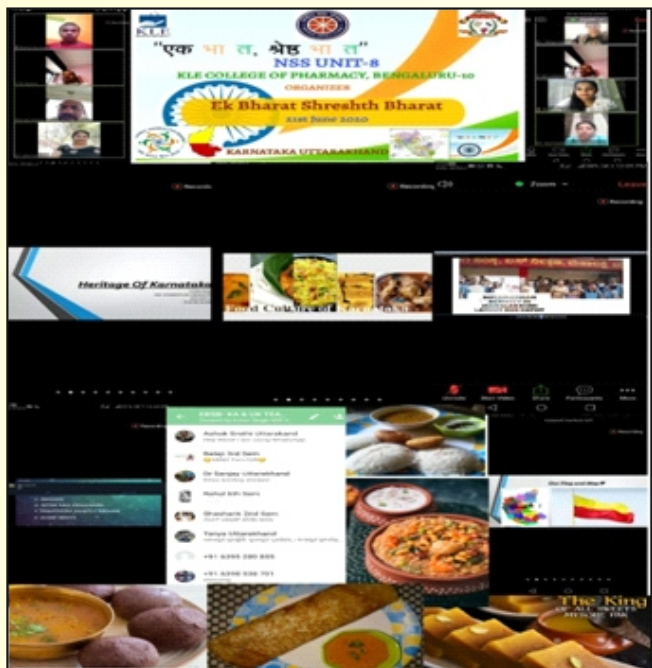
Plantation drive on 06.06.2020

A program on World Environment Day was organized by NSS unit-8, KLE College of Pharmacy, Bangalore on June 6, 2020. The agenda was plantation of saplings at college campus and at respective residences by 20 NSS volunteers. Post-afternoon, a virtual workshop session was organized for NSS volunteers.



International Yoga Day on 21.06.2020

NSS volunteers and staff of KLE College of Pharmacy, Bengaluru actively participated in a Yoga session on 21.06.2020. 25 NSS volunteers and 1 programme officer participated in Mass Yoga session at Pandit Sri Ravishankar Ashram, Kanakapura Road, Bengaluru.



Ek Bharat Shrestha Bharat 2020 21.06.2020

As a part of Ek Bharat Shrestha Bharat program with the pairing state of Karnataka–Uttarakand, a whatapp group was created. In consultation with the Regional Director of Uttarakand, Sri. Ashok Shrothi, Program Officer of Uttarakand, Dr.Sanjeev Budanyai, 92 NSS volunteers of Uttarakand joined the group and participated in the Zoom Webinar on EBSB Karnataka–Uttarakand organized by NSS Programme Officer of KLE College of Pharmacy, Bangalore, Dr. Mamatha A on 21.06.2020.

Section Editor : Dr. Rahul R

COLLEGE PROFESSIONAL ACTIVITIES FROM ALL THE DEPARTMENTS

Department	Activity	Type	Total Number		Certification
			Organized	Attended	
Pharmacy Practice	Guest Lecture	Online	11	20	Yes
Pharmacology	Guest Lecture	Online	01	78	Yes
Pharmaceutics	Guest Lecture	Online	-	157	No
	Online Workshop	Online	01	03	Yes
Pharmaceutical Chemistry	Guest Lecture	Online	-	55	Yes
	Collaboration	01			
	Guest Lecture (Alumni)	Online	07	-	No
Pharmacognosy	Guest Lecture	Online	01	107	Yes

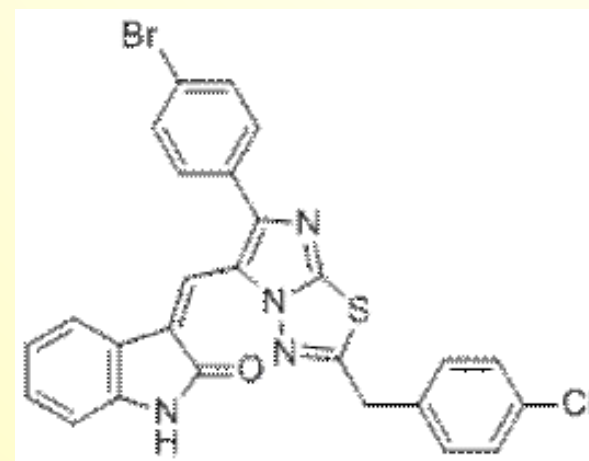
Section Editor : Mrs. Arvinder Kaur

A Cancer Therapeutic Molecule from India: Indian Researchers have Discovered Possibly the best BCL2 Inhibitor yet

Disarib - The New Kid on the Block

Disarib is the culmination of 8 years of collaborative research involving 24 researchers from 8 different research groups across various labs, including the Department of Pharmaceutical Chemistry, KLE University's College of Pharmacy (Prof. Subhas Karki's group), Department of Biochemistry (Prof. Sathees C. Raghavan's group) and the Molecular Biophysics Unit (Prof. Avadhesh Suroli's group) at the Indian Institute of Science, Institute of Bioinformatics and Applied Biotechnology (Prof. N. Yathindra's group and Prof. Vibha Choudhary's group), all from Bangalore. In addition, there are contributions from the Department of Molecular and Clinical Cancer Medicine University of Liverpool (Dr. Nagesh Kalakonda's group), UK, Rajiv Gandhi Centre for Biotechnology (Prof. T. R. Santhosh Kumar's group), Trivandrum and Advanced Centre for Treatment, Research and Education in Cancer (Prof. Pritha Ray's group), Mumbai.

The molecule was designed by Dr. Subhas S Karki and synthesized by Dr. Sujeet Kumar in KLE University's College of Pharmacy in Bangalore. Ms. Supriya V. Vartak and Ms Divyaan kalyer, graduate students with Prof. Raghavan, at the Department of Biochemistry, IISc have also contributed significantly to the study. The researchers have filed for an Indian patent and have initiated the process of filing application for the Patent Cooperation Treaty, which grants intellectual property protection in several countries around the globe.



But what is so impressive about Disarib? There are many. Firstly, it is one of the handful drug molecules that have been completely developed in India, right from conceptualization of a new idea to development to testing and trials –a rarity on its own! The drug molecule itself warrants its own fair share of attention because of its numerous merits. Disarib inhibits the action of BCL2 without damaging platelets, much like the ABT199. Its mode of action in causing apoptosis, unlike the ABT199, is a lot more specific, eliminating the possibility of a number of side effects.

In fact, results of the studies from Prof. Raghavan's group show that Disarib performs better than ABT199 in eliminating cancer cells. It does so at a significantly smaller dose, further reducing the chances of unintended side effects. "Also, the smaller size of Disarib molecule, compared to ABT199, makes it easier for the drug to reach the cancerous cells where it can begin destroying the tumoursays"researcher.

The researchers have left no stone unturned during the study on Disarib, including its mechanism of action. Following a number of preliminary testing and analyses, the drug was tested in cancer cell lines, animal models, patient samples and more. The team even successfully utilised a humanised model of tumour in mice for ovarian carcinoma, in addition to three independent mouse tumour models for investigating the tumour regression property of Disarib. The molecule was found effective against a range of cancers –leukaemia, lymphoma, breast cancer, ovarian cancer and colon cancer. "In all the cases, our molecule was performing better than the ABT199, which is why we decide to patent this molecule".

The Road Ahead for Disarib:

Though the initial findings of the studies seem very promising, there is still a long way to go before we see Disarib on the shelves of a pharmacy. A number of pre-clinical trials are yet to be done before the drug even gets approved for clinical trials.

Dr. Subhas S. Karki
Professor and Head,
Department of Pharmaceutical Chemistry

Section Editor : Dr. Rini S V