



PHARMA COMMUNIQUE

(An internal circulation of news, knowledge and professional updates)

of
BLDEA'S SSM COLLEGE OF PHARMACY & RESEARCH CENTRE

NAAC Accreditation ('B' Grade with 2.40 CGPA score)

Email:bldeapharmabulletin@gmail.com

VOL : 04

ISSUE : 04

OCT - DEC 2019

Chief Patron

Shri Dr. M.B Patil

Patrons

Prof. S. H. Lagali

Dr. R. V. Kulkarni

Chief Editor

Dr. R.B Kotnal

Executive Editor

Dr. S.Z Inamdar

Editorial Team

Staff Editors

Dr. S R Karajgi

Dr. HM Nanjappiah

Student Editors

Miss Jenny L

Miss Keerti Sai

Mr Suhail S

Mr Sumanyu K

Publication Team

Dr.Mallinath P

Dr. Sunanda N

Dr. K Pradeepthi

Dr. Abhishek B

Advertising Team

Dr. C. C. Patil,

Mr. B. S. Hunasagi,

Advisory Members

Dr. Mallinath P

Dr. Sunanda N

Dr. K Pradeepthi

Miss Hastei K

Mrs Ashwini G

EDITORS DESK

"Most people mistake wisdom for education, like a high school diploma or college degree. Seeking wisdom is not the same as gaining knowledge: Knowledge is a precursor to wisdom. Wisdom includes an intuitive element, an insight gained from personal experience that serves us as we make choices in our lives. Seeking wisdom should be a continual process." -

It is easy to identify between "knowledge" and "wisdom" through this simple sensible quote "Knowledge is knowing a tomato is a fruit. Wisdom is not putting it in a fruit salad." ~

Educational system is continuously evolving however many educators have felt at times how they are bound by scripted curricula, fixed curricula activities or a laser-like focus on doing the "test" which has sometimes hindered their ability to serve the students in a holistic way and moreover the system being practiced has reduced the application of wisdom from educators as well as from the learners to a greater extent. Learners learning ability often depends upon learners cultural background, language, available resources, learning environment, available facilities, equipments, infra and other learning disabilities, but one of the chief criticisms many educators make is that the system is dumbing down their teaching. It is de-skilling them. It is not allowing them or teaching them - the judgment they need to do good teaching, "Educators are encouraged to present material that [is] beyond the grasp of some and below the grasp of others, to sacrifice students' internal motivations and interests in the cause of 'covering the curriculum,' and to forgo the teachable moment, when students [are] ready and eager to learn, because it [happens] to fall outside of the prescribed sequence of activities." as stated by education scholar Prof Linda Darling-Hammond.

In the whole process of education "wisdom" is something that needs to prosper continuously in the realm of seeking and acquiring knowledge. Thus, acquiring knowledge is to develop the wisdom so that one can use what he know in a way that gives him the opportunity for ownership over his path chosen, and the ability to lead others. Hence, educators should shift their approach from learners "engagement" to learners "empowerment", and to make this productive, wisdom is needed, but it is a trait that can be nurtured and developed at all levels in education. The educators should facilitate this in channelized manner giving learners the focal point for all teaching learning activities so as to develop required attribute in the learner.

...Prof (Dr.) S Z Inamdar



Prof. (Dr.) R B Kotnal taking charge as the Principal of BLDEA's SSM College of Pharmacy & Research Centre, Vijaypur in the Hon'ble presence of Prof. (Dr.) R V Kulkarni, Chief AO, BLDE Association

INSTITUTE CREDENTIALS

Journal Publications

- Inamdar Syed Zia, Sunanda Nandikol, Pradeepthi Katragadda, Raghavendra Vinayakarao Kulkarni, Kusal Das, Rucha Kulkarni. Pharmacist Led Assessment of Medication Inappropriateness in a Medicine Department of a Tertiary Care Hospital. *Indian Journal of Pharmacy Practice*, 2019;12(4):262-266.
- Karajgi S R, Mallikarjun D T, Somashekhar M, Shivakumar B. Development of New Analytical Method for Estimation of Lansoprazole in Bulk and Tablet dosage forms. *International Journal of PharmTech Research* 2019;12(4):63-69
- Karajgi Santoshkumar, Vishal Babar. Silver Nanotechnology for Antimicrobial and Anticancer Assessments of Isolated Bioactive Compound from *Calycopteris Floribunda* Leaves. *International Journal of Research and Analytical Reviews* May 2019;6(2).

Conference Presentation

- B Hunasagi presented e-poster on "Phytochemical investigation and organ toxicity study of *Datura Alba* (*Datura*) & quot; In 4th Annual National convention of association of pharmaceutical teachers of India (APTICON) at DIT University Dehradun on the theme of 'Holistic Contribution of Pharmacy Gurus for future global Leaders-vision 2047" held on 11-13th October 2019
- SC Marapur presented e-poster on "Formulation & Evaluation of Liqui-Solid Compacts of Lurasidone". In 4th Annual National convention of association of pharmaceutical teachers of India (APTICON) at DIT University Dehradun on the theme of 'Holistic Contribution of Pharmacy Gurus for future Global Leaders-vision 2047" held on 11-13th October 2019.
- RG Patil presented e-poster on "Formulation & Evaluation of matrix tablets containing Cetozone based poly-electro light complex with natural gum for prolonged release of Diltiazem Hydrochloride". In 4th Annual National

Convention of association of pharmaceutical teachers of India (APTICON) at DIT University Dehradun on the theme of 'Holistic Contribution of Pharmacy Gurus for future global Leaders-vision 2047" held on 11-13th October 2019.

- Santosh Awasthi presented e-poster on "Evaluation of hepatoprotective activity of ficus carica fruit in INH induced model". In 4th Annual National Convention of association of pharmaceutical teachers of India (APTICON) at DIT University Dehradun on the theme of 'Holistic Contribution of Pharmacy Gurus for future global Leaders-vision 2047" held on 11-13th October 2019.
- Nanjappaiah H.M presented e-poster on "Screening of anti-stress activity of *Ficus Benghalensis* fruit extract". In 4th Annual National convention of association of Pharmaceutical teachers of India (APTICON) at DIT University Dehradun on the theme of 'Holistic Contribution of Pharmacy Gurus for future Global Leaders-vision 2047" held on 11-13th October 2019.
- Prashanth Jorapur presented e-poster on "Formulation and Evaluation of sustain release mucoadhesive microspheres of Cefodoxime Proxitel". In 4th Annual National Convention of association of pharmaceutical teachers of India (APTICON) at DIT University Dehradun on 11-13th October 2019. On the theme of 'Holistic Contribution of Pharmacy Gurus for future global Leaders-vision 2047".
- Virupanagouda P Patil presented e-poster on In 4th Annual National convention of association of pharmaceutical teachers of India (APTICON) at DIT University Dehradun on the theme of 'Holistic Contribution of Pharmacy Gurus for future global Leaders-vision 2047" held on 11-13th October 2019.
- SM Biradar presented e-poster on "To study the influence of breathing exercise & patient quality of life in asthma and COPD patients". In 4th Annual National convention of association of pharmaceutical teachers of India (APTICON)

at DIT University Dehradun on the theme of 'Holistic Contribution of Pharmacy Gurus for future global Leaders-vision 2047" held on 11-13th October 2019

- H. Shivkumar, V. P. Patil, H. M. Nanjappaiah, Sandeep A.G has presented oral presentation on "Evaluation of adaptogenetic activity of Ficus Benghalensis fruit extract" in experimental animals.
- Sunanda Nandikol, S. Z. Inamdar presented a oral presentation on "A case report on Infantile Tremor Syndrome" in International Conference on Pharmacy Practice and Therapeutics on "Exploring and Advancing Healthcare through Novel Strategies in Pharmacy Practice" held on 17th & 18th December 2019
- K. Pradeepthi, S.Z. Inamdar presented oral presentation on "A case report on HELLP Syndrome" in International Conference on Pharmacy Practice and Therapeutics on "Exploring and Advancing Healthcare through Novel Strategies in Pharmacy Practice" held on 17th & 18th December 2019
- S. Z. Inamdar, Akhila, presented a poster on "Pharmacist mediated drug related problems in type 2 DM" in International Conference on Pharmacy Practice and Therapeutics on "Exploring and Advancing Healthcare through Novel Strategies in Pharmacy Practice" held on 17th & 18th December 2019 – 2nd Best Poster Awarded
- S. M. Biradar, Kohima presented a poster on "Spironolactone digoxin synergies gynecomastia" in International Conference on Pharmacy Practice and Therapeutics on "Exploring and Advancing Healthcare through Novel Strategies in Pharmacy Practice" held on 17th & 18th December 2019
- Priya. Jamkhandi presented a e-poster at International Conference on Pharmacy Practice and Therapeutics on "Exploring and Advancing Healthcare through Novel Strategies in Pharmacy Practice" held on 17th & 18th December 2019

- Somashekar Metre, presented a paper on Evaluation of anti-inflammatory activity of the novel derivatives of 1,3,4- oxadiazole at 71st IPC, Chennai 20-22nd Dec 2019
- Sangappa Gurappa Teli, presented a paper on Strategy towards "Synthesis and biological evaluation of nucleic acid interacting bis-quinoxaline glycoconjugate" at 71st IPC, Chennai 20-22nd Dec 2019
- S.Z Inamdar. Seema Jakanur, presented a e-poster on "Drug induced hypersensitivity syndrome secondary to Phenobarbitone: A case report" at 71st IPC, Chennai 20-22nd Dec 2019
- Mallinath V P presented a poster on "Pharmacoeconomic and cost effectiveness study of anti-hypertensive agents" at 71st IPC, Chennai 20-22nd Dec 2019

Faculty participation and other Curricular and Co-Curricular Activities

- Dr.R.B.Kotnal, as Resource Person attended University Assignment on Moderation of QPS from 13th Nov at RGUHS, Bengaluru
- Dr.B.Shivakumar, as Resource Person attended University Assignment on Moderation of QPS from 13th Nov at RGUHS, Bengaluru
- Dr. Gaviraj E.N as Resource Person attended University Assignment on Moderation of QPS from 13th Nov at RGUHS, Bengaluru
- Rudragouda G. Patil participated as Poster Evaluator in 4th Annual National convention of association of pharmaceutical teachers of India (APTICON) at DIT University Dehradun on 11-13th October 2019. On the theme of 'Holistic Contribution of Pharmacy Gurus for future global Leaders-vision 2047" .
- V. P. Patil participated as Poster Evaluator in 4th Annual National convention of association of pharmaceutical teachers of India (APTICON) at DIT University Dehradun on 11-13th October 2019. On the theme of 'Holistic Contribution of Pharmacy Gurus for future global Leaders-vision 2047" .
- B.S.Hunasagi participated as Poster

Evaluator in 4th Annual National convention of association of pharmaceutical teachers of India (APTICON) at DIT University Dehradun on 11-13th October 2019. On the theme of 'Holistic Contribution of Pharmacy Gurus for future global Leaders-vision 2047'.

- Dr.S.M.Biradar participated as Poster Evaluator in 4th Annual National convention of association of pharmaceutical teachers of India (APTICON) at DIT University Dehradun on 11-13th October 2019. On the theme of 'Holistic Contribution of Pharmacy Gurus for future global Leaders-vision 2047'.
- Dr. Santosh Karajgi participated as poster evaluator during the event of 58th National Pharmacy Week celebration on 18th -23rd Nov 2019 at POL College of Pharmacy, Vijayapur
- Dr. Santosh Karajgi, Dr. C. C. Patil participated as poster evaluator during the event of 58th National Pharmacy Week celebration on 18th -23rd Nov 2019 at BLDEA's College of Pharmacy, Basavana Bagewadi
- Dr. B. Shivakumar, Dr. Santosh Karajgi, S. M. Biradar participated as Essay Writing Evaluator during the event of 58th National Pharmacy Week celebration on 18th -23rd Nov 2019 at BLDEA's SSM College of Pharmacy and Research Centre, Vijayapur
- Dr.Gaviraj E.N Vinod Reddy Mr.Prashant Jorapur participated as Poster Evaluator in the event of 58th National Pharmacy Week celebration on 18th -23rd Nov 2019 at BLDEA's SSM College of Pharmacy and Research Centre, Vijayapur
- Mr. V. P Patil and Nanjappaiah HM participated as Quiz Evaluator in the event of 58th National Pharmacy Week celebration on 18th -23rd Nov 2019 BLDEA's SSM College of Pharmacy and Research Centre, Vijayapur
- Dr. H. Shivakumar, C. V. Nagathan, R. G. Patil, S. Z. Inamdar participated as Debate Competition Evaluator in the event of 58th National Pharmacy Week celebration on 18th -23rd Nov 2019 BLDEA's SSM College of Pharmacy and Research Centre, Vijayapur
- Dr. B. Shivakumar, Sushilkumar L Arun. Walikar, participated as Counseling skit Competition Evaluator in the event of 58th National Pharmacy Week celebration on 18th -23rd Nov 2019 BLDEA's SSM College of Pharmacy and Research Centre, Vijayapur
- Dr. C. C. Patil, S. C. Marapur, B. Shivakumar participated as 3mins video film Competition Evaluator in the event of 58th National Pharmacy Week celebration on 18th -23rd Nov 2019 BLDEA's SSM College of Pharmacy and Research Centre, Vijayapur

VIEWPOINT

Artificial Intelligence in the Pharmaceutical Industry – An Overview of Innovations Hasti. Kenia

Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. Artificial intelligence in Pharmacy refers to the use of automated algorithms to perform tasks which traditionally rely on human intelligence. The companies are offering software across the following applications in the pharmaceutical space:

- **Predicting Treatment Results**
- **Drug Design**
- **Data Pre processing**

Predicting Treatment Results:

GNS Healthcare

GNS Healthcare offers Reverse Engineering & Forward Simulation (REFS), a machine learning software that automates work that previously involved trial and error to match drug interventions with individual patients.

The company claims that REFS-generated machine learning models are capable of predicting a patient's response to possible drug treatments by inferring possible relationships among factors that might be affecting the results, such as the body's ability to absorb the compounds, the distribution of those compounds around the body, and a person's metabolism. The algorithms then run simulations and ask multiple "what if?" questions until the user can determine which drug treatment might produce

the best result for each patient, based on what the reverse engineering process reveals. The company does not have available case studies but announced a collaboration with Amgen and Alliance for clinical trials that will apply REFS to identify factors that drive responses to Panitumumab, Amgen's treatment for patients with metastatic colorectal cancer. Bruce Church, Chief Mathematics Officer, is responsible for further developing the machine learning algorithms for REFS and leading the development of new products and technologies. Previously, he spent 10 years at Cornell University, developing global optimization methods for computational protein folding. He also served as principal investigator on major grants including a \$2.5 million award from the Department of Energy. Bruce received a PhD in applied physics from Cornell University.

Drug Design:

Atomwise

Atomwise developed AtomNet technology, a deep learning neural network application for structure-based drug design and discovery. The company claims that their technology is based on convolutional neural networks – the same technology that powers face and speech recognition and self-driving cars. The company did not describe the exact process of how the application is used in drug design, but we can infer that the researcher uses the application by virtually combining atoms to come up with possible molecules. The company claims that its algorithms are trained to process and analyze billions of atoms to find which ones will bond, and will then simulate their testing on the computer, as seen in the video below:

The company explains that while other technologies present users with 2D pixels with channels of red, green, and blue colors, AtomNet represents the molecule-protein binding as 3D pixels with channels for carbon, oxygen, nitrogen, and other atoms. This representation trains AtomNet to learn the features of molecular binding and avoids manual tweaking and “over-parameterizing” to express the system, process, or model as equations, according to the company. In 2015, Atomwise worked with the University of Toronto and IBM to develop a treatment for Ebola virus infections that caused

about 11,310 deaths in some African and European countries and the United States. In the drug discovery process, Atomwise defined a region to investigate for potential small molecules. This region was then screened for molecules that bind to glycoprotein. The compounds already had safety data for use in patients and could be rapidly brought forward for clinical trials. Using the AtomNet system, the team analyzed and predicted the molecules that could potentially bind to glycoprotein. The University of Toronto tested the compounds in vivo. The identified compound turned out to have no previous anti-viral activity. This showed that AtomNet is able to identify new drug uses.

Insilico Medicine

Insilico Medicine launched its Pharm.AI project, which the company claims can create, train, sell or permit use of its deep neural network solutions to pharmaceutical and biotechnology companies, as well as to academia. The company did not reveal the exact processes of its offering, but according to Founder and CEO Alex Zhavoronkov, the company mainly applies generative adversarial networks (GAN) and reinforcement learning algorithms to generate new molecular structures and to find the biological origin of a disease. GAN is a branch of AI that works when a generator produces real-looking images while the discriminator attempts to recognize which one is a fake, to increase the accuracy in generating images, videos, and text. The CEO's profile explained that the company uses this AI method in areas such as oncology, fibrosis, dermatology, and aging. Reinforcement learning, meanwhile, is a method of machine learning where the algorithms are rewarded after it performs an action. Insilico uses AI to help pharmaceutical companies improve the R&D processes, develop companion diagnostics and improve clinical trials enrollment practices. The company claims to collect the human tissue of young, middle-aged, old, and very old patients to build its own data, which can be used to train other datasets. The company also collects and compares healthy and disease-afflicted tissue to identify patterns in the aging process and diseases to help in developing drug treatments, and drug scoring to evaluate the effectiveness of drugs.

The video adds that using AI could reduce animal testing and human clinical trials. The company also develops and licenses biomarkers and drug discovery tools for cancer and age-related diseases. Biomarkers, according to the US National Center for Biotechnology Information, are medical characteristics that can be measured and evaluated to show normal biological processes, pathogenic processes, or responses to a drug-based intervention.

Nuritas

Nuritas claims to have developed a machine learning application that finds and unlocks naturally occurring bioactive peptides from food sources. Peptides are chains of amino acids that potentially provide therapeutic solutions. The company claims that it combines AI and DNA analyses to discover ingredients in different food sources that have therapeutic qualities, including the management of chronic metabolic diseases. It's unclear what input is required or what kind of interaction the user has with the application, but the video below explains that Nuritas' application reduces thousands of hours of trial and error by automating the search for peptides in various food sources. The technology is also used to label or tag diseases, which helps the algorithms search for their origins faster. Once the peptides are predicted or discovered, the team can unlock the peptides from the food source for use in developing treatments.

- **Data Preprocessing**

BioSymetrics

In December 2017, BioSymetrics launched Augusta, a data preprocessing and analytics application which the company claims can analyze and integrate different types of biomedical and healthcare data with existing business processes using machine learning. According to the company, this capability expedites the deployment of AI initiatives in precision medicine, drug discovery, and health data applications. The machine learning engine, called SymetryML, is capable of processing and analyzing raw data such as images, genomics data, streaming data, and compounds. Digital versions of compounds consist of alphanumeric text strings that can be used in printed and electronic sources of chemical data and information. To digitize compounds, a set of mathematical rules are used to convert the graphical representations of the compound structures to unique

digital codes. The codes, known as IUPAC Chemical Identifiers (IChIs), are alphanumeric text strings. Specifically, it can recognize and process data in MRI/fMRI and other imaging formats, EEG, EKG/ECG, genetics, proteomics, data from wearables such as smartwatches and heart rate monitors, EHR/EMR formats. This capability allows the application to combine genomics with clinical data that will be used by businesses to develop drug treatments. The company claims that this capability is relevant in drug compound and small molecule activity prediction, as well as drug discovery and drug development analysis which identifies, determines, quantifies and purifies the compound.

Most of the companies discussed in this report are involved in drug discovery and predicting drug treatment results among patients. Nuritas is focused on finding new and naturally occurring compounds from food sources rather than from synthetic compounds. Most of the companies report that their solutions can be easily integrated into the client's system. However, none of them provided detailed information about how one interacts with their products, and they also aren't transparent about their integration process. As a result, we need to take their claims with a grain of salt. Insilico Medicine indicated that it requires its researchers and scientists to sign nondisclosure agreements to protect the confidentiality of its research. For this reason, the company tightly guards the identity of its professionals and invests heavily in their training. This scenario might be true for most companies in the pharmaceutical industry.

DRUG RESISTANCE TUBERCULOSIS IN INDIA

Shripad. S. Potadar

Tuberculosis is caused by infection with the bacteria *Mycobacterium tuberculosis*. Almost one in four people in the world are infected with TB bacteria. Bacteria become active as a result of anything that can reduce the person's immunity such as HIV, advancing age, diabetes or other immunocompromising illnesses. TB can usually be treated with a course of four standard, or first-line, anti-TB drugs (i.e., isoniazid, rifampin and any fluoroquinolone).

Multi-drug-resistant tuberculosis (MDR-TB) is a form of tuberculosis (TB) infection caused by

bacteria that are resistant to treatment with at least two of the most powerful first-line anti-T medications (drugs), isoniazid and rifampin. Some forms of TB are also resistant to second-line medications, and are called extensively drug-resistant TB (XDR-TB).

The prevalence of TB drug resistance is an indicator of the effectiveness of TB control. Drug resistance surveillance (DRS) surveys have been ongoing since 2005 in Andhra Pradesh, Gujarat, Maharashtra, Orissa and Uttar Pradesh. The prevalence of multidrug-resistant TB (MDR-TB) in new smear-positive pulmonary TB cases ranges from 1% to 3% among districts.

In the state of Gujarat, the prevalence of MDR-TB in new TB cases was 2.4% (1.6-3.1) and in previously treated cases, 17.4% (15.0-19.7) (8). It is estimated that 5.4% of all TB patients in India have MDR-TB, so that there are about 131 000 incident MDR-TB per year . The second-line drug sensitivity testing of MDR-TB isolates detected in the Gujarat DRS survey shows 4% extensively drug-resistant tuberculosis (XDR-TB) among the MDR-TB detected in the smear-positive retreatment cases. The extremely high rate (>50%) of pre-treatment resistance to quinolones, observed among the first annual cohort of 60 MDR-TB cases diagnosed in the initial RNTCP DOTS-Plus site in Gujarat , is a matter of concern.

MED FLARE

PvPI Drug Safety Alerts

The preliminary analysis of ADRs from the PvPI database reveals that the following drugs are associated with the risks as given below.

Sr. No.	Suspected Drug	Indication	Adverse Reaction
1	Cetirizine	For the treatment of allergic rhinitis and chronic urticaria.	Acute Generalized Exanthematous Pustulosis and Hiccups
2	Clozapine	Indicated in the management of Schizophrenic patients.	Neural Tube Defects
3	Cilostazole	For the treatment of stable intermittent claudication, acting or cramping in legs that occur with walking.	Tinnitus

4	Levamisole	Indicated in the treatment and control of mature and developing immature infections of haemonchus, ostertagia, trichostrongylus, cooperia, nematodinus, bunostomum, oesophagostomum and dictyocaulus and all forms of liver fluke infection	Stevens Johnson Syndrome
5	Cephalosporin	Indicated in the treatment of serious infections due to susceptible organisms-respiratory tract infections, urinary tract infections, skin biliary tract infections, septicaemia, meningitis other infections due to susceptible organisms and in the treatment of infections due to penicillin resistant strains of staphylococci.	Acute Generalized Exanthematous Pustulosis

Drug Information

Insulin Lispro Protamine/Insulin Lispro (Rx)	
Diabetes Mellitus Combination rapid-onset (faster than regular insulin) and intermediate-acting insulin in fixed dose regimen varies among patients depending on metabolic needs; typical daily insulin requirements range between 0.5-1 unit/kg Administer SC BID (i.e., before breakfast and evening meal); each dose intended to cover 2 meals or a meal and snack	
Dosing & Uses	Adults Dose: Dosage Forms & Strengths Insulin lispro protamine/insulin lispro Subcutaneous injection (75units/25units)/mL (50units/50units)/mL Pediatric Dose: Safety and efficacy not established
Pharmacology	Bioavailability: SC, well absorbed (2-3 times faster than regular insulin) Onset: <15 min Peak Plasma Time: 30-90 min Protein Bound: 0-9%; similar to regular human insulin Metabolism: Liver >50%, kidney 30%, adipose tissue/muscle 20% V_d: 0.26-0.36 L/kg

Mechanism of Action	Binds insulin receptors; activates mechanisms that lower blood glucose by facilitating cellular uptake of glucose into skeletal muscle and fat, simultaneously inhibits glucose output from liver
Adverse Effects	<ul style="list-style-type: none"> • Frequency Not Defined • Hypoglycemia • Insulin resistance • Lipodystrophy • Lipohypertrophy • Local allergic reaction • Hypokalemia • Injection site reactions • Weight gain • Edema • Pruritus • Rash
Warnings	<p>Contraindications:</p> <ul style="list-style-type: none"> • Hypersensitivity • During episodes of hypoglycemia
Cautions	<ul style="list-style-type: none"> • Never share pen between patients even if needle is changed. • Suspension for SC use, do not administer IV. • Administer within 15 minutes of meals. (rapid onset and peak ~1 h) • Rapid changes in serum glucose may induce symptoms of hypoglycemia. • Early warning symptoms of hypoglycemia may be different or less pronounced under certain conditions. (e.g., long duration of diabetes, diabetic nerve disease, use of beta-blockers or intensified diabetes control) • Caution in conditions with decreased insulin requirements. (e.g., diarrhea, nausea, vomiting, malabsorption, hypothyroidism, renal impairment, hepatic impairment) • Caution in conditions with increased insulin requirements. (e.g., fever, hyperthyroidism, trauma, infection, surgery) • Thiazolidinediones are peroxisome proliferator-activated receptor (PPAR)-gamma agonists and can cause dose-related fluid retention, particularly when used in combination with insulin; fluid retention may lead to or exacerbate heart failure, monitor for signs and symptoms of heart failure and treat accordingly and consider discontinuing thiazolidinediones. • Glucose monitoring recommended for all patients with diabetes • Do not mix with other insulins. • Do not administer via insulin infusion pump • Hypoglycemia may be life-threatening; increase frequency of blood glucose monitoring with changes to insulin dosage, co-administered glucose lowering medications, meal pattern, physical activity; in patients with renal or hepatic impairment; and in patients with hypoglycemia unawareness • Accidental mix-ups between insulin products can occur; instruct patients to check insulin labels before injection • Severe, life-threatening, generalized allergy, including anaphylaxis, reported; discontinue therapy, monitor, and treat if indicated • Hypokalemia may occur; may be life-threatening; monitor potassium levels in patients at risk of hypokalemia and treat if indicated

Pregnancy & Lactation	<p>Pregnancy</p> <p>The limited available data in pregnant women are insufficient to inform a drug-associated risk of adverse developmental outcomes; published studies during pregnancy have not reported association between drug and induction of major birth defects, miscarriage, or adverse maternal or fetal outcomes; there are risks to mother and fetus associated with poorly controlled diabetes in pregnancy</p> <p>Poorly controlled diabetes in pregnancy increases maternal risk for diabetic keto-acidosis, pre-eclampsia, spontaneous abortions, preterm delivery, stillbirth and delivery complications; also increases fetal risk for major birth defects, still birth, and macrosomia related morbidity</p> <p>Animal data</p> <p>Pregnant rats and rabbits exposed to drug during organogenesis showed no adverse effects on embryo/fetal viability or morphology in off-springs administered a dose approximately 3 times the human subcutaneous dose of 1 unit insulin lispro/kg/day; no adverse effects on embryo/fetal development were observed in offspring of rabbits exposed to insulin lispro at doses up to approximately 0.24 times the human subcutaneous dose of 1 unit/kg/day</p> <p>Lactation</p> <p>There are no data on presence of drug in human milk, effects on breastfed infant, or on milk production; one small published study reported exogenous insulin present in human milk; however, there is insufficient information to determine effects on breastfed infant and no available information on the effects on milk production; the developmental and health benefits of breastfeeding should be considered along with mother's clinical need for insulin, any potential adverse effects on breastfed child from drug or from underlying maternal condition</p> <p>Pregnancy Categories</p> <ul style="list-style-type: none"> • A: Generally acceptable. Controlled studies in pregnant women show no evidence of fetal risk. • B: May be acceptable. Animal studies show no risk but human studies are not available or animal studies showed minor risks and human studies done and showed no risk. • C: Use with caution if benefits outweigh risks. Animal studies show risk and human studies not available or neither animal nor human studies done. • D: Use in LIFE-THREATENING emergencies when no safer drug available. Positive evidence of human fetal risk. • X: Do not use in pregnancy. Risks involved outweigh potential benefits. Safer alternatives exist. • NA: Information not available.
	<p>Brand and Other Names:</p> <p>Humalog Mix 50/50, Humalog Mix 50/50 Kwikpen,</p>
	<p>Classes</p> <p>Antidiabetics, Insulins</p>
	<p>Reference</p> <p>https://reference.medscape.com/drug/humalog-mix-50-50-insulin-lispro-protamine-insulin-lispro-999553#90</p>

KUDOS

Congratulations!!!



Prof. R B Kotnal has been appointed as the Principal of BLDEAs College of Pharmacy & Research Centre, Vijaypur

Best Oral/Poster presentation Award

Dr.H.Shivkumar, VPP, HMN, Sandeep A.G has persented oral presentation on “Evaluation of adaptogenetic activity of Ficus Benghalensis fruit extract” in experimental animals. also Awarded 2nd Prize.

Dr. K.Pradeepthi, Dr. S. Z. Inamdar presented oral presentation on “A case report on HELLP Syndrome” in International Conference on Pharmacy Practice and Therapeutics on “Exploring and Advancing Healthcare through Novel Strategies in Pharmacy Practice” held on 17th &18th December 2019- Best Oral Presentation Award.

Dr. S.Z Inamdar, Akhila presentated a poster on “Pharmacist mediated drug related problems in type 2 DM” in International Conference on Pharmacy Practice and Therapeutics on “ Exploring and Advancing Healthcare through Novel Strategies in Pharmacy Practice” held on 17th &18th December 2019- 3rd Best Poster presentation Award.

CPETS Forum

58th National Pharmacy Week- Inter College Event



Winners of 58th National Pharmacy Week- 1st Inter College Events

RGUHS University Tournament



ALUMNI EMOIR

Reflection - Ashwini s Gudigenavar

It is my pleasure to place the record to wonderful years that I had under the auspices of Pharmaceutics Department at BLDEA'S SSM Collage of Pharmacy Vijayapur.

College life is an important phase in a student's academic journey after the numerous formative years of schooling.

Undergoing graduation, I cherished the feeling of studying at an Institute, which focused on career enhancement along with overall skill development with the seamless mix of extracurricular activities. The professors are dedicated experts in their respective subjects and are talented, committed and genuinely caring.

I would always be grateful to BLDEA'S SSM College for giving me a multi- dimensional learning by providing the apt mix of academics, industry exposure, attitude and leadership.

BLDEA'S SSM College made me focused and experiences gained during the course of 2 years have contributed to my professional growth.

The institute has also nurtured my aspirations and laid the foundations to realize those those aspirations.

The peer group at BLDEA'S SSM College was intellectually stimulating and with some, I have made friends for life!!

INSTITUTE CHRONICLE

Felicitation of outgoing Principal Dr. N. V. Kalyane



Dr N V Kalyane being felicitated on his retirement by Hon'ble Dr R V Kulkarni Chief Administrator Officer BLDE Association, Principal Dr R B Kotnal, and Shri R G Patil, Asst Prof & President APTI , Karnataka state

Dr. N. V. Kalyane was appointed as Principal of BLDEA's College of Pharmacy in 2005. During his tenure the institute has achieved many milestones to name a few, the institute has been running successfully 7 Post graduate branches in Pharmaceutics Pharmacology. Pharm. Technology, Pharmacognosy. Pharmacy Practice, Pharmacology and Quality Assurance. The institute also offered courses in Pharm. D and Pharm. D (PB) program. The institute was also recognised as PhD Centre for Pharmaceutics, Pharmacology and Pharmacognosy branches. In 2018 the institute was accredited by NAAC with Grade 'B' and an increase in intake from 60- 100 for B Pharm course was also approved by apex and regulatory bodies.

Guest lecture



Dept. of Pharmaceutics, BLDEA's SSM College of Pharmacy and Research centre, Vijayapur has conducted guest lecture on "ETHICS & MORAL VALUES". Guest lecture was delivered by Dr. Bharathi Yenkanchi, Asst. Prof. Dept. of Pharmacology, Al-Ameen Medical College, Vijayapur on 30/12/2019. 12 staff and 89 students of B Pharm, Pharm D and M Pharm were attended the guest lecture. The Programme was coordinated by Mrs. Ashwini. S. G, Asst. Prof, Dept. of Pharmaceutics, BLDEA's SSM COP and RC, Vijayapur.

Gandhi Jayanthi



BLDEA's SSM College of Pharmacy & Research Centre, Vijayapur celebrated 150th Birth Anniversary of Rashtrapitha Mahatma Gandhi, 2019 and 116th Birth Anniversary of Lal Bahadur Shastri, Former Prime Minister of India on 2nd October. On this auspicious day all teaching, Non teaching and students of D pharm, B pharm & Pharm D attended the Pooja function. After the Pooja function the "Student Experiences and Placements Affairs Committee" organized an essay competition and drawing competition on the topics of Unity in Diversity, Non-Violence, Satyagraha, and Mahatma Gandhi's effort in Indian freedom struggle, Swadeshi movement. 27 students were enrolled for the essay competition and 10 students were enrolled for the drawing competition.

BLDE Foundation Day



Dr. H. Shivakumar, Dr. B. Shivakumar, Dr. V. P. Patil felicitated on BLDE foundation day

109th BLDE Foundation day was celebrated at Shri B.M Patil Medical College auditorium on 23rd October 2019. During the event all the Faculties, students of various schools and colleges which are under BLDE Associations were present. In the event, achievers from faculty sector and students were felicitated to motivate their achievements. Dr. H. Shivakumar, Dr. B. Shivakumar, Dr. V. P. Patil from BLDEA's SSM College of Pharmacy & Research Centre were felicitated for their achievement in the field of research.

Rashtriya Ekta Diwas



NSS Cell in collaboration with Students Affairs and Experiences and Placement Committee celebrated Rashtriya Ekta Diwas, on 31st October 2019 to commemorate the 144th birth anniversary of Sardar Vallabhbhai Patel, the Iron Man of India. It is also known as National Unity Day. Students & teachers took an oath to preserve the unity, integrity and security of the nation in the spirit of unification of the county. All the teaching, non teaching faculty and students were present at the event.

Breast Cancer Awareness Programme



Breast cancer awareness programme was held on 12th November 2019 to ensure the provision of quality screening services, and to increase public awareness and education on the risk factors, signs and symptoms, in addition to the benefits of early detection and screening of breast cancer. The lecture was delivered by Prof,(Dr.) Vijaya Patil, around 122 students & staff attended the programme. The program was co-ordinated by Mr. Shridhar Biradar, and Dr K Pradeepthi. The event was fruitful and had provided insight on risk factors and early assessment to detect breast cancer.

CPETS Forum

58th National Pharmacy Week & 1st Inter college Event inauguration



58th NPW Event Inauguration by Dr RV Kulkarni, Chief AO BLDE Association, in the presence of Principal Dr R B Kotnal and Shri Yuvraj Pol and Shri Basavaraj Sonnad visiting Principals from other Pharmacy institutes

CPETS forum of BLDEAs SSM COP & RC organizes a weeklong celebration to mark the occasion of 58th National Pharmacy Week 2019 with the theme of “Pharmacist: Your Medication Counsellor”, the event was unique in its own way as this was the first time that the occasion was witnessed to the launch of 1st inter college event

and feast with participation of different pharmacy colleges invited to collaborate and participate in the weeklong event being scheduled so as to explore, motivate and develop healthy competition among students across the institutes to show cast their competency and skill under planned NPW event activities. The event was inaugurated by Hon'ble chief guest Dr R.V Kulkarni, Chief Administrative Officer, BLDE association in the presence of Dr. R B Kotnal, Principal BLDE pharmacy college, principals of other participating colleges shri Yuvraj Pol, shri Basavaraj Sonnad, shri Ravi koti, alumna and entrepreneur Shri Ravi Kumar Angadi, director attitude plus corporation , special invites and CPETS secretary Dr S Z Inamdar. From the day of inauguration a weeklong celebration of the inter college event witnessed huge student participation from all the participating colleges with thunderous support from the college students and staff for their respective team for each event they participated. The event was witnessed to the fine talent shown by all college students giving stiff competitions to each other to make their mark. The events were theme based planned under following categories;

Quiz, Debate Essay Writing, Poster Presentation, Counselling Skit, 3 min video film etc. The concluding part of the NPW 2019 was an outdoor community based health education and awareness activity on theme of "Appropriate Medication usage; Handling and disposing" where the host college CPETS coordinator Mr Sridhar Biradar, along with his team and student actively participated in staging awareness and educational program in the community setting regarding safe handling and disposal of medication to the villagers and common public. In the valedictory function, Ho'nble Chief guest shri DS Gudodgi, chairman, governing council, BLDEAs Pharmacy College gave away the awards to the winner teams and congratulated the student for presenting their talents. He further, anticipated more such activities, events to come up in near future to motivate in developing competency among students fraternity for a more holistic upbringing and expressed his joy that BLDEAs COP and RC has taken the initiative and lead from front.

OPEN DAY



A college open day was organized on 30th November 2019, around 230 students from Shri B M Patil PU College and SB Arts and KCP Science College has visited along with their staff. The interaction with our faculty assisted the students in understanding the field of pharmaceutical sciences. The student were enthusiastic and were in great zeal to witness the infra and equipment utilized for manufacturing and doing research in the field of pharmacy. The event has motivated many students to take up pharmacy field as their career path. The open day was concluded with a high tea arranged for the students, they bid farewell to the college with a hope to return as a student of pharmacy in the next academic year. The event was coordinated by Prof. (Dr.) C.C Patil and team.

Workshop on Basic Course on Educational Methodology



Two days workshop on Basic Course in Educational Methodology sponsored by Rajiv Gandhi University of Health Sciences, RGUHS Academic & Administrative Training Institute (RAATI) Bengaluru was organized by BLDEA's SSM College of Pharmacy and Research Centre, Vijayapur for all the faculty members on 2nd & 3rd December-2019. RAATI has deputed two resource persons Dr. Sushant Kulkarni and Dr. Shafi Attar from Bharatesh Homeopathic Medical College, Belagavi

to engage this workshop. The programme started with welcome address by Dr. Shivakumar Hugar, Prof & HOD of Pharmacology, organizing secretary of the workshop. The workshop was inaugurated by Dr. Hussainmiya D.H. Principal, BLDEAs College of Education, Jamakhandi and delivered the Inaugural speech. Dr. R. V. Kulkarni, Administrative Officer, and BLDE Association was invited as Chief guest. Dr. Ramling B. Kotnal, Principal, BLDEA's SSM College of Pharmacy and Research Centre, presided the function as president. Dr. V. P. Patil and Dr. Nanjappaiah H. M, Associate Professors, Dept. of Pharmacology were the coordinators of this workshop. The resource persons also pointed out the importance of Basic Course in Educational Methodology and how it affects the whole academic activities and helpful in Teaching- Learning and evaluation of student's performance. After the completion of the workshop valedictory function was chaired by Dr. Tejaswini Vallabha, Vice-Principal, Shri. B. M. Patil Medical College Hospital and Research Centre and Dean of Allied health Sciences, BLDE University. Both the resource persons felicitated and certificates were distributed by the guest by the guests to all the participants of workshop. During two days of workshop breakfast and lunch served to all the participants.

Parent – Teacher Meet



Parent Teacher Meet was conducted on 7th Dec-2019. The meet was interactive and with a huge turnout of parents participation. The environment was vibrant, parents and teachers explored and updated about student progress, provided and received valuable feedback. The event was coordinated by Shr S C Marapur and team.

Visit of Alumni to the Institute



Alumini Association members interacting with Visiting Alumini

The college witnessed a surprise visit by its alma matter most of them were visiting almost two decades since they left the institute after graduation. The alumini were welcomed by the principal and alumini association office bearers. It was all a nostalgic moment and the environment was filled with all the baygone memories. The alumini were efficiently settled in their career and were eager to assist the institute in strengthening the alumini network and placement activity and were enthusiastic to provide guidance as needed to upcoming graduates for career building.

Industrial Excursion

EVENTS FORECAST

Sl. no	Event	Date	Venue
1.	International conference on Current Trends in Pharmacology Research – Preclinical Trails	3 rd - 4 th Jan 2020	Bhaskar College of Pharmacy, Hyderabad, Telangana
2.	State level conference on Innovations in Science and Technology	18 th – 19 th Feb	S. B. Arts and KCP Science College, Vijayapur.
3.	National Conference on Pharmacy and Health Care – A Paradigm shift from traditional knowledge to modern techniques	19 th – 20 th Feb	St. Paul College of Pharmacy, Hyderabad
4.	International conference on Advances in Pharmaceutical and Health Sciences	20 th - 22 th Feb 2020	NGSM Institute of Pharmaceutical Sciences, NITTE, Mangalore,

ARCHIVES VAULT

History of Pharmacy



Dioscorides—A Scientist Looks at Drugs

In the evolution of all successful and enduring systems of knowledge there comes a time when the observations of many men, or the intensive studies of one, transcend from the level of trade or vocation to that of a science. Pedanios Dioscorides (first century A.D.), contributed mightily to such a transition in Pharmacy. In order to study *materia medica*, Dioscorides accompanied the Roman armies throughout the known world. He recorded what he observed, promulgated excellent rules for collection of drugs, their storage and use. His texts were considered basic science as late as the sixteenth century. [Ref: “Great Moments in Pharmacy” by George A Bender Paintings By Robert A. Thom. Copyright ©Parke, Davis & Company 1965, Library of Congress Catalog Number: 65-26825]

STUDENT DIARY

A Ray of Hope

Hastie K



When things are not in favour,
 Keeping you low.
 Life goes to a state,
 Where Beauty fades and
 you lose all the glow.

The brain and the heart,
 Once again conflicts.

Brain gets disheartened,
 Feels it’s all failing
 With no hope of life
 and snow all over.

The heart then consoles,
 Gives it a positive hope.
 The Sun will shine,
 And so will you.
 Life will blossom,
 and river will flow.
 It’s the rule,
 Nothing is constant,
 The Autumn ends
 and the spring follows.

WISDOM PEARLS

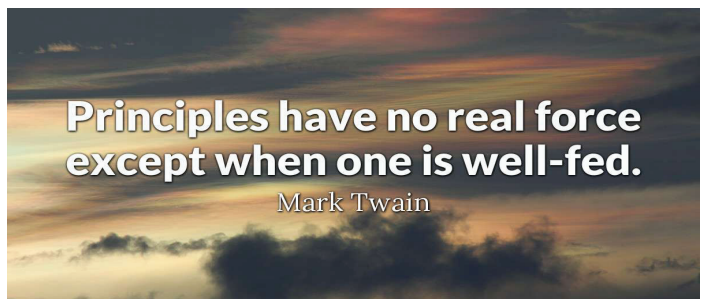
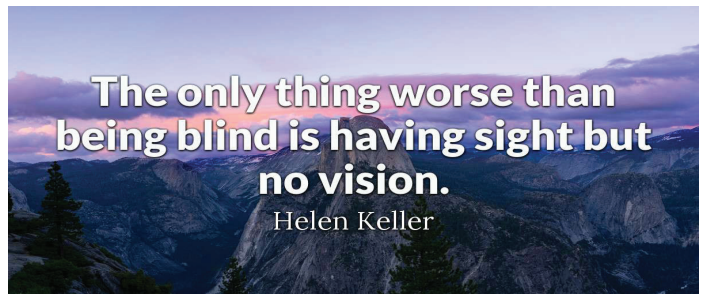


PHOTO FEATURES

Gandhi Jayanti



BLDE Foundation Day



Rashtriya Ekta Diwas



Breast Cancer Awareness Program



CPETS Forum – 58th NPW Inter College Events





Faculties in the role of Event Evaluators for 58th NPW - Inter College Event

COLLEGE OPEN DAY: Faculty Interaction with Visiting Students



CPETS Forum – 58th NPW Community Event
 “Community Health Education: Appropriate Medicine Usage- Handling and Disposing”



RGUHS - RAATI Two day Work shop on Basic Course in Education Methodology



Alumni Visit of the Institute



Student Achievers with Faculties



Former Principal Dr N V Kalyane's Felicitation



Final B Pharm Student Visit to Manipal University- Educational Excursion



IV. Master of Pharmacy (M. Pharm)

Course duration: 2 years

Eligibility: Pass in B. Pharm with 55% marks.

- Pharmaceutics
- Pharmaceutical Chemistry
- Pharmacology
- Pharmacognosy
- Pharmacy Practice
- Pharmaceutical Technology
- Quality Assurance

V. Ph.D Programme

- Pharmaceutics
- Pharmaceutical Chemistry
- Pharmacognosy

Features

- Highly qualified and experienced teaching staff
- Well-ventilated classrooms with modern audio-visual teaching aid
- Sophisticated laboratories with modern instruments/equipment
- Museum exhibiting past and present developments in pharmacy
- Dhanvantri garden with about 100 medicinal herbs/shrubs
- Scientific society, a forum for regular interaction with eminent personalities to discuss current trends in Pharmacy
- Well furnished hostels for boys & girls
- Library & e-library, Recreation center
- Bank Loans
- State-level Ranks - 4
- Research Grants - 1.32 Crore
- Wi-Fi Campus
- Attached Hospital within campus
- Concession in fees for meritorious students of Vijayapur Dist.
- Swimming track within campus
- Fee waiver for students of Vijayapur District who secure CET ranking below 2500 conducted by KEA. 10% of total seats will be reserved for all courses of Pharmacy in this category
- Pharm. D Interns will be paid stipend of Rs. 8000 per month
- Academic Excellence Award will be conferred for class toppers



Library

Library has a huge collection of books, journals and CDs. The cyber center, which is also a part of the college, helps students to familiarize with internet & HELINET usage.

Placement Cell

All efforts are made to place our students in reputed companies, thus assuring them a secured and bright future. Over the last 5 years, our students have been placed in several reputed multi-national and Indian companies such as Ranbaxy, Astra, Pfizer, Torrent, FDC, Cipla, Himalaya, etc. Several of our students are employed in corporate hospitals too.

Prospects

The pharmaceutical industry in India is growing at a rapid pace, as a result of spurt in the number of hospitals, nursing homes and pharmaceutical companies. It indicates the increasing scope in this sector. A course in Pharmacy definitely offers reasonably good career opportunities by way of job opportunities in the job market and scope for self employment. The job opportunities for pharmacy graduates in India and in International level are as follows:

1. Pharmaceutical Industry: R&D, F&D, production, quality control, quality assurance or marketing of new drugs for clinical use (medical representatives).
2. Basis for Higher Education: M. Pharm or Ph.D holders can engage in research work like developing new drug molecules in pharmaceutical industry and analyzing them for application.
3. Government Departments: Drug control administration as a Drug Inspector or Government Analyst and Hospital Pharmacist in Armed Forces, Railways and Primary Health Care Centers. Pharmacists also have job opportunities in the Department of Health and Family Welfare, Pest Control Division of Agriculture, Department of National Defence, Provincial Research Councils and the Provincial Departments of Agriculture or Environment
4. University: Teaching and Research.
5. A career abroad: Hospital and clinical pharmacist, QA & QC scientist, regulatory expert, academics, production officer, etc.
6. Consulting Services: Pharmacy graduates can work as consultants for industry and academic centers.
7. Self employment: A diploma or degree holder in Pharmacy, after registering with the State Pharmacy Council, can set-up and run a pharmacy or chemists & druggists shop (retail as well as wholesale).
8. Clinical Research: Worldwide opportunity in contract research organisations.



Salary Potential

Approximate earnings per month of the newly employed Pharmacy graduates.

- Along with contributory provident fund, D.A., insurance, medical reimbursement, and other allowances and benefits as per government rules, average salary of a Pharmacist is around Rs 20,000.
- Research scientists: Rs. 50,000 - 60,000
- Medical representatives: Rs. 20,000 - 25,000 + incentives
- Manufacturing Pharmacists: Rs. 20,000 +
- Hospital Pharmacists: Rs. 20,000 - 25,000
- Government jobs: Rs. 20,000 onwards
- Academicians: Rs. 40,000 onwards



BLDE Association's Shri Sanganabasava Mahaswamiji COLLEGE OF PHARMACY & RESEARCH CENTRE

BLDE University Campus, Solapur Road, Vijayapura-586 103 | Ph: 08352-264004
bldeascop@yahoo.com | www.bldeaparmacy.ac.in

For Admissions call Principal @ 09448947496/Vice-Principal 9845619296



BLDE Association's Shri Sanganabasava Mahaswamiji COLLEGE OF PHARMACY & RESEARCH CENTRE



Build a lucrative career in the fast growing PHARMA industry

The Bijapur Liberal District Education Association

The Bijapur Liberal District Education Association (BLDEA) was founded in the year 1910 with the objective of imparting quality education. BLDEA currently runs 75 educational institutions and is thereby making a significant contribution to India's development. Since inception, the association has been working with a deep sense of commitment to bring about multi-lateral development in a wider section of population through an extensive network of educational institutions. BLDEA's College of Pharmacy, established in the year 1982 to cater to the needs of pharmacy education, is known for quality education.

BLDEA's SSM College of Pharmacy College and Research Center

Vision

To provide quality Pharmaceutical Education, Practice & Research with global standards and to meet health care needs of backward region of North Karnataka.



Admissions Open

Mission

To empower graduates in application based knowledge with high degree of professional integrity and ethics.

Courses offered

- I. **Diploma in Pharmacy (D. Pharm)**
Course duration: 2 years
Eligibility: Pass in 10+2 or any equivalent examination of any other approved Board, with Science as major subjects (PCM or PCB).
- II. **Bachelor of Pharmacy (B. Pharm)**
a) **Admission to 1st year B. Pharm**
Course duration: 4 years
Eligibility: Pass in PUC in Karnataka or any equivalent examination of any other approved Board, with minimum 40% marks in any combination PCM/PCB/PCMB.
(In case of SC/ST & Group-A the minimum requirement is 35%).

b) Admission to direct 11nd year B. Pharm

Pass in D. Pharm examination conducted by BEA Bangalore, or any authority approved by the Pharmacy Council of India.

III. Doctor of Pharmacy (Pharm. D.)

a) Admission to Doctor of Pharmacy (Pharm. D.)

Course duration: 6 years
Eligibility: Pass in 10+2 or D. Pharm Examination.

b) Post Baccalaureate (Pharm. D.)

Course duration: 3 years
Eligibility: Pass in B. Pharm Examination.

Scope for Pharm. D

A candidate who completes Pharm. D...

- Can find a job in the clinical sector
- Can play an active role in heading a hospital's pharmacy set-up
- Gets job opportunities in industries that deal with clinical trials
- Can register as a pharmacist all over the world
- Can find placement in Pharmacovigilance Sector and
- Is eligible to appear for NAPLEX in US and can become a registered pharmacist even in other countries.

PHARMA COMMUNIQUÉ

Printed & Published by
Principal,

BLDEA's SSM College of Pharmacy and Research Centre,
Vijaypur-586103

Contact no: 08352-264004

Email: bldeapharmabulletin@gmail.com

Website: bldeapharmacy.ac.in

Printed@ : BLDEA's OFFSET PRINTERS, VIJAYAPUR

Vision

To Provide Quality Pharmaceutical Education, Practice and Research with Global Standards and to meet health care needs of Backward Region of North Karnataka

Mission

Empowering Graduates in application based Knowledge with high degree of Professional Integrity and Ethics