Govt. College of Pharmacy, Amravati. Maharashtra

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Vision:

Journey towards the development of technical excellence among the students to make them globally competent pharmacists.

Mission:

To prepare graduates globally competent pharmacist with skills and attitude for creation of professional and social environment and to engage in life-long learning processes

Journey towards Academic and Technical Excellence

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From the Principal's desk

Dear Students!!

COVID-19 has the potential to radically reshape our world and hence it is the appropriate time for intelligent collective actions for structural changes in education system. Open educational resources and open access digital tools must be supported. Education cannot thrive with ready-made content built outside of the pedagogical space and outside of human relationships between teachers and students.

COVID-19 has also brought a new trend ofcollaborativeremarkable learning experiencesthrough resourcefulness, dedication and creativity from the many teachers, families and students.

Today it is clear that nothing can substitute for collaboration between teachers, whose function is not to apply ready-made technologies or pre-prepared didactics, but to fully assume their role as knowledge enablers and pedagogic guides. The capacity to initiate, experiment and innovate that has been unleashed during these pandemic disruptions must be allowed to continue.

Year 2021-22 is filled many proud moments for GCOPA from students as well as teachers. Total **24** students of B.Pharm final year qualified GPAT,**23**students qualified NIPER examination, 3 students GATE, 2 TISS and 4 students ATMA Exam. Pratahamesh Kawadkar qualified India's most prestigious national level entrance examination CAT and set a new path to GCOPA students. All these students made college and society proud.

When you give yourself permission to communicate what matters to you in every situation you will have peace despite rejection or disapproval. GCOPA E-magazine is right platform for their Self-expression which is crucial for the development of a student's identity, self-confidence and sense of belonging to the world.With this note, I wish you all happy reading experience of this **E-magazine-2022.**

Dr. S. S. Khadabadi

SCIENTIFIC ARTICLES

India's Pharmaceutical Success

In 1947 at the time on India independent at this time, Millions of Indians had no access to basic drugs. The country's drugs industry was almost completely controlled by foreigners. Eight of the top ten firms were multinational from Most the UK France and Germany and they had 90% market share. Domestic Indian companies spent most of their resources marketing and distributing other people's drugs rather than actually creating their own. Indian had to import almost every drug they took; domestic drug prices among the highest in the world since 99% of those drugs were locked up in patents so only the rich had access to any drug at all. Indian government few times attempted to deal with this over reliance on foreign drug imports. In1954 the government established a public sector pharmaceutical firm called in the Hindustan antibiotic limited or HAL. Few years later they founded second one- Indian drug and pharmaceutical limited this time in cooperation with the Soviets. Then in 1960, the British pharmaceutical company ICI pharmaceuticals developed a high blood pressure medication called Propranolol. It is a beta blocker that helps with anxiety and also prevents migraines. The drug was too expensive to be used in India. An Indian company called Cipla began manufacturing a generic version of the drugs for Indian market. ICI complain to the Indian government about this Cipla R&D head Yusuf Hamid justified his action to India's Prime Minister at the time Indira Gandhi. She saw the merit of the argument and urge parliament to modify the law governing during patent. This led to the passing of the patent act of 1970 which sparked their vitalization of the Indian Pharmaceutical industry. The patent act of 1970 had two goal the first was to guarantee low-cost access of drug this condition was to foster the development of an indigenous Indian Pharmaceutical industry and encourage import substitution India's prior patent laws, last updated in 1872 were rooted British law specifically they protected the product for instant a fore mentioned chemical compound. This was favoured pharma industry's IP protection regime. In1970 act replace these with a new system that protected the process than the product. In addition, the act set time limit on the on those process patent about 5 to 7 years after feeling rather than 15 years afforded by the old law, furthermore, if the Indian Patent Office determine the patent were not being used in also socially beneficial way, the office had the leeway to force patent holder to license those patterns to other at a reasonable rate. The number of firms in Indian Pharmaceutical industry more than doubled from 1970 to 1980.

These moves did not find much favor with the multinational pharma-industry. It should not be forgotten, though, that in many industrial countries, the protection of inventions through patents was only developed in the last 30 years. The Swiss pharmaceutical industry in particular fought the enactment of a patent law at the end of the 19th century, in order to be able to imitate foreign drugs, such as Aspirin.

In the German Reichstag (Parliament) Switzerland was considered a "state of robber barons", in France a "country of counterfeiters". Product patents for medical drugs have only been known in Switzerland since 1978. It is very clear whose interest they serve. Technology exporters profit from patent protection, which shields them from low-cost competition. Technology importers – in other words, most of the developing countries want access to technical innovations as freely and cheaply as possible i.e. no patent protection which creates monopolistic barriers. Indeed it was in this way that the economic development of Japan, Korea and Taiwan was able to thrive, due to the beneficial absence of patents.

The Cipla philosophy has for decades been to promote the principle of relying on one's own strength. "For India, this means striving for a high degree of self-sufficiency in vital areas of health and nutrition, and for our business practice, it means aiming for the fulfilment of the needs of the Indian population, the use of indigenous raw materials and of local personnel", says Cipla managing director Y.K.Hamied. This philosophy, combined with technical expertise, must have been the reason that the Indian Council for Medical Research suggested to Cipla in 1990 that the AIDS drug Zidovudine be produced locally. Due to the state investing its limited means in prevention, the market remained small. In India, approximately US$ 2million is turned over yearly for AIDS drugs. Of this, Cipla has a share of about 80percent. This is only a small percentage of Cipla's total turnover of more than US $ 210 million.

Indian pharma industry is very interested in the export of its pharmaceutics. Developing countries are an important market for Indian manufacturers because they produce high quality products at very competitive prices. But free trade is hampered by national and international patent rules. For a patent does not only constitute the sole right to produce a product but also to import it. Despite these barriers, India's drug exports exceeded in the year 2000 for the first time US $ 1.5 billion. The success story of the pharmaceutical sector is part of a wider but less known "economic miracle": India achieved average rates of economic growth for the last 20 years of six percent annually.

India has become a WTO member in 1995 and will have to apply the new TRIPS rules for medical drugs in its national patent legislation by 1 January 2005 at the latest. Product patents of at least 20 years duration will have to be provided for medical inventions after that date. The Indian pharmaceutical industry has been campaigning for the legal provision of anti-monopolistic safeguards like compulsory licensing, parallel imports, restricting the life of patents on essential drugs to 10 years, not allowing imports to be considered as working of a patent. The product patents present, however ,are no longer a matter of controversy.

A first attempt of 1995 by the Government of India to amend the patent law lapsed in parliament. After a dispute settlement procedure at the WTO – requested by the United States against the Government of India – another Indian attempt to get parliamentary approval failed. In order to comply with WTO/TRIPS, the Government of India finally issued in 1999 the Patents (Amendment) Ordinance, establishing a mailbox facility to accept product patent applications from 1 January 1995 onwards, and to provide exclusive marketing rights (EMR) to such applicants. A second part of the Patents (second amendment) Bill 1999 to adjust the Indian legislation to TRIPs has now been pending for more than two years before the joint committee of both the upper and the lower house.

Pranjal Pokale
B.Pharm Third Year

Top 10 Indian Pharma Companies and Their Popular Products

Pharmaceutical company

A pharmaceutical company, or drug company, is a commercial business licensed to research, develop, market and/or distribute drugs, most commonly in the context of healthcare, with the aim to cure, vaccinate, or alleviate symptoms. The global pharmaceuticals market produced treatments worth $1,228.45 billion in 2020 and showed a compound annual growth rate (CAGR) of 1.8%.

Indian Pharmaceutical Sector

India has a massive pharma sector to take care of its huge population. Not just India, Indian Pharmaceutical industry plays a major and significant role in international sector of Pharma industry. The country is the world's biggest maker of vaccines and generic pharmaceuticals. Its portion in the global supply of generic medications accounts for 20% of the total volume. In addition, India is home to more than 3,000 pharmaceutical companies, a robust network of over 10,500 production facilities, and a highly qualified talent pool. India makes more than 500 active pharmaceutical ingredients (APIs) and is the source of 60,000 generic brands. This makes India's API industry the third largest in the world. India's major generic drug makers, such as Sun Pharma, Cipla, Dr. Reddy's Laboratories, Lupin, Aurobindo Pharma, etc., have a large and powerful position in the global drug supply chain.

List of India's top ten pharma manufacturing companies

According to recent data acquired from sources, a compiled list of India's top ten pharma manufacturing businesses is collected. The list is based on their current growth, regulatory approval, and manufacturing location.

	Name	Sub-Sector	↓ Market Cap	Close Price
1.	Sun Pharmaceutical Industries L...	Pharmaceuticals	2,21,002.74	921.10
2.	Cipla Ltd	Pharmaceuticals	66,195.84	1,068.10
3.	Dr Reddy's Laboratories Ltd	Pharmaceuticals	68,712.73	4,139.20
4.	Torrent Pharmaceuticals Ltd	Pharmaceuticals	51,315.10	1,516.20
5.	Alkem Laboratories Ltd	Pharmaceuticals	38,952.48	3,257.85
6.	Abbott India Ltd	Pharmaceuticals	37,937.97	17,853.75
7.	Zydus Lifesciences Ltd	Pharmaceuticals	36,110.38	356.75
8.	Gland Pharma Ltd	Pharmaceuticals	35,300.14	2,143.45
9.	Aurobindo Pharma Ltd	Pharmaceuticals	30,295.96	517.05
10.	Lupin Ltd	Pharmaceuticals	29,478.55	648.35

Sun Pharma	Sun Pharma is one of the biggest Indian generic pharmaceutical companies in the world. Exports drugs to more than 70 countries worldwide and has over 36,000 employees. Sun Pharma is the largest Indian corporation in emerging markets like South Africa, Brazil, Mexico, Russia, and Romania. Sun Pharma produces and markets various pharmacological formulations and comprises of over-the-counter (OTC) medications, antiretrovirals (ARVs), active pharmaceutical ingredients (APIs), and intermediary formulations. Popular brands of Sun Pharma include Abzorb Powders, Volini, Revital, Pepfiz, and Suncross sunscreens.
Cipla Ltd	Cipla Ltd was the first pharmaceutical company in India. It is currently second in market cap amongst pharmaceutical companies in India. The business is well known for being the top supplier of antiretroviral drugs. Its product range has more than 1500 different items. Cipla has been instrumental in significantly changing the Indian Generic drug market. Cipla is especially well known for its Respiratory inhaler range of products for asthma.
Dr. Reddy's Laboratories	It provides various goods and services worldwide, such as API, generic medicines, branded generics, biosimilars, and OTC pharmaceutical items. Dr. Reddy's exports drugs to over 66 counties and has over 24,000 employees. Reddy's It has garnered much media attention due to its participation in disseminating and assessing the Russian Covid-19 vaccine Sputnik. Venusia, Glimy, Telsartan, and Reditux are some of the popular brands of Dr. Reddy's.
Torrent Pharma	Torrent Pharma is one of the top pharma companies in India. The company was amongst the first to introduce the idea of niche marketing to India, and it is now among the top pharma companies in India in the therapeutic segments of women's health, cardiovascular, nervous system, and gastrointestinal healthcare. Nexpro, Losar, Shelcal, Nikoran, Veloz-D are some

	of the popular brands of Torrent Pharma.
Alkem Labs Ltd.	Alkem Labs is present in more than 50 countries across the world. The company caters to various therapeutic segments, including anti-infective, gastroenterological, analgesic, pain relief, anti-diabetic, cardiology, dermatological, neurologic/central nervous system (CNS), vitamins, minerals, and nutrients. Famous pharmaceutical brands such as Clavam, Pan, Pan-D, and Taxim-O are represented in Alkem's portfolio.
Glenmark Life Sciences	Glenmark Life Sciences is a leading developer and manufacturer of select high value, non-commoditized Active Pharmaceutical Ingredients (APIs) in chronic therapeutic areas. In June 2020, the company launched a potential COVID-19 drug Favipiravir under the brand name FabiFlu in India Cetrilin, V-wash, Candid, FabiFlu are some of the popular brands of Glenmark company.
Zydus Healthcare ltd	Zydus Cadila develops and produces a wide variety of pharmaceuticals, diagnostics, herbal items, skincare products, and other over-the-counter products. The company operates twenty-five pharmaceutical production facilities throughout India. Among its many product names, a few popular ones are Aten, Falcigo, Nucoxia, Levoday, Metscore, and Arzep.
Gland Pharma	Gland Pharma developed into one of the biggest and fastest-growing generic injectables manufacturing companies. The company has a global footprint in more than 60 countries, including the United States, Europe, Canada, Australia, and India. Famous brands such as Hepaglan, Cutenox, Mepsonate, Glanpan are represented in Gland Pharma's portfolio.
Aurobindo Pharma	The company began its activities in Puducherry by establishing a single facility for producing semi-synthetic penicillin (SSP). Aurobindo Pharma has a

AUROBINDO Committed to healthier life!	foothold in important therapeutic areas such as neurosciences, cardiology, antiretrovirals, anti-diabetics, gastrointestinal. More than seventy percent of Aurobindo's revenue comes from its operations in other countries, which it exports to over 125 nations. Among its many product names, a few popular ones are Paxlovid, Hivus-LR, Forstavir.
Lupin Ltd LUPIN PHARMACEUTICALS, INC.	Lupin Limited is a multinational pharmaceutical corporation with its headquarters in Mumbai. It is among the world's most successful generic pharmaceutical firms.Lupin began producing anti-tuberculosis medications, which, at one point in time, constituted 36% of the business's revenues and earned the company the reputation of being the biggest TB drug producer in the world. Nizonide, Lupiderm, Lupinem, Reclaim-L are among the popular brands of Lupin Ltd.

Conclusion

India has been contributing a major portion to the global supply of medicines, and it is expected to grow further as it holds the potential to expand and boost the overall growth of pharmaceutical sector. New technologies and Data Management/ Informatics solutions are being used to accelerate this process along with immense talent pool in India, we can expect more companies to break into the top pharma companies in India list, as the competition is fierce.

Yukta A. Upaganalawar
BPharm Third Year

Impacts of Pharmaceutical Industry on Pollution

We all atleast once gone through a disease, then what we do? We go to doctor and doctor diagnoses us and prescribe medicine. We take that medicine and get rid of suffering. But where does this medicine come from? The medicines are manufactured by the Pharmaceutical Industry. As it is an Industry it may have some impact on the environment. The intention to write this essay is to create awareness among all students studying Pharmaceutical Sciences Pharmaceutical Industry impacts environment drastically. The all medications that we used are generally drugs and chemical based products. All the synthetic drugs are manufactured with the help of chemicals. Dosage form we create needs two things: API and Excipients. API (Active Pharmaceutical Ingredient) is therapeutically active constituent of dosage form and Excipients are substances used to improve drug delivery properties. For synthesis of chemicals we need raw chemicals again question come where do this chemicals come from answer is Natural Resources. Manufacturing of APIs for small-molecule drugs relies largely on chemicals derived from petroleum, a fossil fuel, which is a major source of pollution. When drugs are synthesized several drugs require multi step synthesis and many chemicals are employed at the end of the process and during the process we get two things, one desired product and another which is useless and needs to be discarded. Drugs are used in dosage form manufacturing but what about the discarded side products. Where they are discarded? The pharmaceutical plants are incapable to filtering all the chemicals used in manufacturing. Some drug manufacturing companies treat them and discard them in water bodies like rivers and oceans and this leads to pollution of water bodies.

The main impacts of Pharmaceutical Industry on various aspects of Environment are:

Aquatic Systems: Patients take drugs but only a fraction of drugs is metabolized in body rest of is excreted out by body by faces and urine. A good proportion of any drug is excreted, between 30% and 90%-Gwynne Lyons, policy director of the CHEM Trust, a UK environmental charity. The faeces and urine goes in sewage flow. Sewage is treated in treatment plants but it not work in very significant manner because they are chemicals in mixed form and with very low concentration but enough to create some physiological changes in aquatic organisms. The sewage meets the rivers, lakes and finally to oceans. Maximum drugs are water soluble so they sweep into groundwater. The drugs present in water bodies enter aquatic organisms. As drugs have its intrinsic pharmacological action so it show it effect on physiological system of organism in same or different manner as that of human beings. Let's see one example of Such Incident Example 1) Rebecca Klaper a freshwater scientist at the University of Wisconsin-Milwaukee. When she searched for signs of Pharmaceutical in Lake Michigan she found very interesting: Metformin-

most prescribed Diabetes drug (She found concentrations of metformin in Lake Michigan of around 40 mg/L close to the sewage).The drug was found 3 miles away from sewage treatment plants. She conducted further study and found that Metformin- which is used for treatment of Diabetes in humans has no metabolic changes in fishes Instead she found gene related to egg production was being expressed in male fish, which indicated hormonal changes in male fish. On above she concluded that Metformin could have feminising effect on male fish which directly reduces their ability to reproduce A 2014 report by UK Water Industry Research found that in most of 160 sewage treatment works studied, several common drugs were present in the final effluent in concentrations high enough to potentially affect ecosystems. The drugs included the anti-inflammatory ibuprofen and diclofenac, the antibiotics erythromycin and oxytetracycline, and the female sex hormone 17b-estradiol. The sewage plants we have are not designed to remove this kind of pollutants. So it is quite difficult to remove pharmaceutical Pollutants from sewage

Wildlife: The domestic animals are treated with various drugs and antibiotics for various Diseases and Injuries.Ex.Chicken and Cattles with Antibiotics, Anti-inflammatory and Hormones .The drugs which are accumulated up to certain fractions in bodies of domestic animals. But real problem comes when the Predators who feed on these animals also gets some fraction of drug. This phenomenon is known as Bioaccumulation Population crash of Gyps vultures in India. - This population crash occurred between 1996 to 2007. The reason for the death of between 10 million and 40 million birds was their sensitivity to famous Anti Inflammatory drug Diclofenac. The Vultures specially from genus Gyps are sensitive to diclofenac. Birds died due to abdominal gout and acute kidney failure. The diclofenac that reached to Vultures came from dead bodies of Cattle which were treated for pain with diclofenac. In India people don't eat beef so they were left out for vulture's feast. Diclofenac derived the birds to near-extinction. Three species of Gyps vultures are now critically endangered in Asia. This clear-cut links are rare between pharmaceutical exposure and Harmful Ecological effects

Atmosphere: Pharmaceutical Industry on atmosphere pollution has huge impact. The CFCs used in metered dose inhalers are dangerous to ozone layer which leads to the depletion of Ozone. Approximately 1.9 Mt CO2 was emitted by pharmaceutical production in 2017, not counting other GHG emissions while the pharma sector's energy demand stayed constant overall at 6.57 TWh in 2017. Due to Increase in demand for the energy directly results in increase of Air Pollution. In India about 75 % of Energy is generated by thermal power plants from Coal and Gas. The total global emissions of the pharma sector amounts to about 52 megatonnes of CO2e in 2015, more than the 46.4 megatonnes of CO2e generated by the automotive sector in

the same year. The Global Pharmagiants needs to consider this issue and develop novel manufacturing processes to counter this environment related problems.

Awareness needs to be created among all healthcare workers and patients about right and proper disposal of unused Pharmaceutical Products. Several companies have taken step towards solving this environmental problem. Some companies have taken steps towards it following are examples. If you wish to change it's never too late "where there is will there is way ". As emission intensities at Roche, Johnson & Johnson, and Amgen are already below the 2025 industry target. There are some companies which needs to Let's hope that Eli Lilly, Proctor & Gamble, Abbott, GlaxoSmithKline, Teva and Merck will reduce emissions drastically (by 20-62%) to meet the 2025 US greenhouse gas reduction target. These companies are major contributors to pollution.

Final Message to All readers we live on earth, without which we can't even imagine our existence. When we plan something we have a main plan and a side option. If the main plan fails then we have a side option that is Plan B, but this case is not same with Earth, there is no planet B for us. Earth is only place where life can exist till our knowledge about The Universe. We don't have any Plan B planet to live on. It's time to think about our planet's Health also, not only our health……

Vikee R. Dhakulkar
B.Pharm Third Year

Drug-Interaction, pharmacovigilance and Adverse Drug Reactions

Pharmacovigilance is the branch of science which deals with collection, detection, assessment, reporting and prevention of adverse effect and their interaction with drugs. The main purpose of pharmacovigilance is patient safety, efficacy. Drug interaction means an alteration in duration or magnitude of pharmacological effect of one drug by another one. Drug interaction generally occurs between drug- drug interaction, drug –food interaction and drug –disease interaction. Drug – drug interaction occurs when two or more drugs react with each other which may lead to experience an unexpected side effect. A drug-food interaction is condition in which activity of drug altered by presence of food. It can be lead to a loss of therapeutic efficiency or bioavailability of drug therapy. This interaction can also alter drug clearance. Drug – disease interaction means the presence of any disease condition which causes interaction between disease and drug. This review article will provide information about such interactions, adverse drug reaction and their safety will help physicians prescribed drugs cautiously with only suitable form get maximum benefit for the patient.

Akshada D. Sakhare

B.Pharm Third Year

Intellectual Property Rights; Some of the Landmark cases in India

As a slogan," property" does not have the siren's call of words like,freedom,equality,orrights. The Declaration of Independence speaks boldly of liberty, but only obliquely of property-through the imagery of the" pursuit of Happiness."For every Pilgrim who came to the New World in search of religious freedom, there was at least one colonist who came on the promise of a royal land grant or one slave compelled to come as someone else's property. In the centuries since our founding, the concept of property has changed dramatically in the world.

A less frequently discussed trend is that historically recognized but nonetheless atypical norms of property, such as intellectual property, are becoming increasingly important relative to the old paradigms of property, such as farms, factories, and furnishings. As our attention continues to shift from tangible to intangible forms of property, we can expect a growing jurisprudence of intellectual property. The foundation for such a jurisprudence must be built from an understanding of the philosophical justifications for property rights to ideas-a subject that has never been addressed systematically in American legal literature. Rights in our society cannot depend for their justification solely upon statutory or constitutional provisions.

Some of the landmark cases of IPR in India are:

1) Technology LLC and Ors. Vs. Nuziveedu Seeds Ltd. And Ors., Decided On: 08.01.2019

The patented invention in the case related to a DNA sequence called NAS, which when inserted into a plant cell provides insect tolerance to the plant. On appeal from the interim injunction of the Single Judge in an infringement suit, the Division Bench of the Delhi High Court decided the counterclaim of the defendant for revocation summarily. Taking up the case on special leave, the Supreme Court held that a decision on revocation of a patent requires a trial, and cannot be decided in a summary manner. It stated that the Division Bench should have confined its decision to the injunctive relief in question, and remanded the case back to the Single Judge for a full trial in accordance with the law.

2) FeridAllani Vs. Union of India and Ors.,Decided On: 12.12.2019

This case involves a patent application relating to a method and device for accessing information sources and services on the web. The patent application was rejected based on Section 3(k) of the Patents Act by the Controller. The Court directed the Controller to re-examine the patent application based on the fact that only computer programs per se are not patentable in India, and that a computer program that has

technical effect or technical contribution is not a computer program per se. The Court stated in the case that computer programs embedded in digital or electronic devices must be tested for technical effect, and that inventions relating to computer programs must be examined in the context of modern technology. It stated that computer programs cannot be denied patent protection if they satisfy the requisite standards under the law.

3)Novartis v. Union of India (2013) Decided on :2013

In this case, Novartis Pharmaceutical Company has applied for patenting a drug 'Gleevec' which was rejected by the Indian patents office. Novartis challenged all the rejections in the apex court.It was held by the Supreme court that the substance that was sought to be patented by Novartis was a modification of an already known drug that was in the public domain since 1993 thus it lacks novelty requirement under patent law. As well Novartis has also not shown any evidence of any therapeutic efficacy of its modified medicine over the already existing drug which is a mandatory condition under section 3 (d) of Patents Act, 1970.The court thus held that there was no invention done and a mere discovery of an already existing drug does not amount to invention. The application was accordingly dismissed by the court.

4)F. Hoffman-La Roche Ltd. V. Cipla Ltd. (Delhi)Decided on :2012

This case has arisen over a dispute where Cipla has filed a patent application for a generic drug 'Erlopic' which was manufactured using a polymorphic compound of Erlotinib Hydrochloride. While patent for Erlotinib Hydrochloride was already been given to another company Roche. Therefore, Roche has filed an infringement application against Cipla. But Cipla claimed that it had not used Erlotinib Hydrochloride in its medicine 'Erlopic' but had only used a polymorphic compound of Erlotinib Hydrochloride.It was finally held that Cipla has infringed the patent of Erlotinib Hydrochloride granted to Roche as any preparation of a polymorphic compound of Erlonitib actually first does involve the manufacturing of Erlotinib Hydrochloride. The patent application of Erlotinib Hydrochloride also has stated that its compound form can exist in different polymorphic forms and any such forms will be covered by its patent.

5)Astrazeneca v. Intas Pharma Ltd. &Alkem Labs Ltd. &Astrazeneca AB &Anr. V. Emcure Pharma Ltd. & MSN Labs Ltd.(Delhi)Decided on:2020

Early in the year, the Delhi High Court ruled against generic manufacturers of cardiovascular diseases drug Ticagrelor by holding that even though the drug was covered by a previous genus patent, since it is produced and marketed under a species patent, the patentee is entitled to enforce the later species patent. This

decision was controversially in contradiction with the previous rulings of the court as well as decisions rendered later in the year which have held that coverage and disclosure cannot be separate.In November 2020, the Delhi High Court refused to grant an interim injunction for the manufacture of generic medicines whose subject matter was argued to be disclosed by a species patent, whereas they had already been covered in an expired genus patent. In this well-reasoned judgment, the court reiterated that there cannot be any dichotomy between disclosure and coverage. It also noted that owing to the COVID-19 pandemic, patients already suffering from diabetes are at a greater risk of contracting coronavirus and thus, affordable diabetes medication was in public interest. The court also clarified that disclosure requirements had to be strictly followed by patent applicants.

Rashmi Deshpande
B.Pharm Fourth Year

New Vaccines in Pipeline

In the 21st century, the development, licensing, and implementation of vaccines, immunization programs started to address health problems that existed globally. The development of safe and efficacious vaccination against diseases that cause significant morbidity and mortality and has been one of the foremost scientific advances.A vaccine is a biological preparation that provides active acquired immunity to a particular infectious or malignant disease. The effectiveness of vaccines has been widely studied and verified.

Vaccines are the foundation in our defense against microbial pathogens that are widely recognized as causing solid economic burden on society. According to reference articles, it can often take more than 10 years and between $200 million and $500 million to produce a vaccine; however, vaccines have become the most cost-effective health intervention with the greatest success rates. In 2006, the World Health Organization (WHO) and UNICEF launched the Global Immunization Vision and Strategy, with the aim of controlling morbidity and mortality from vaccine-preventable diseases, including the introduction of technologies and vaccines that have recently become available. Additionally, the WHO's Strategic Advisory Group of Experts on Immunization created the Global Vaccine Action Plan 2011-2020 to realize the goal of allowing communities to live free from vaccine-preventable diseases.

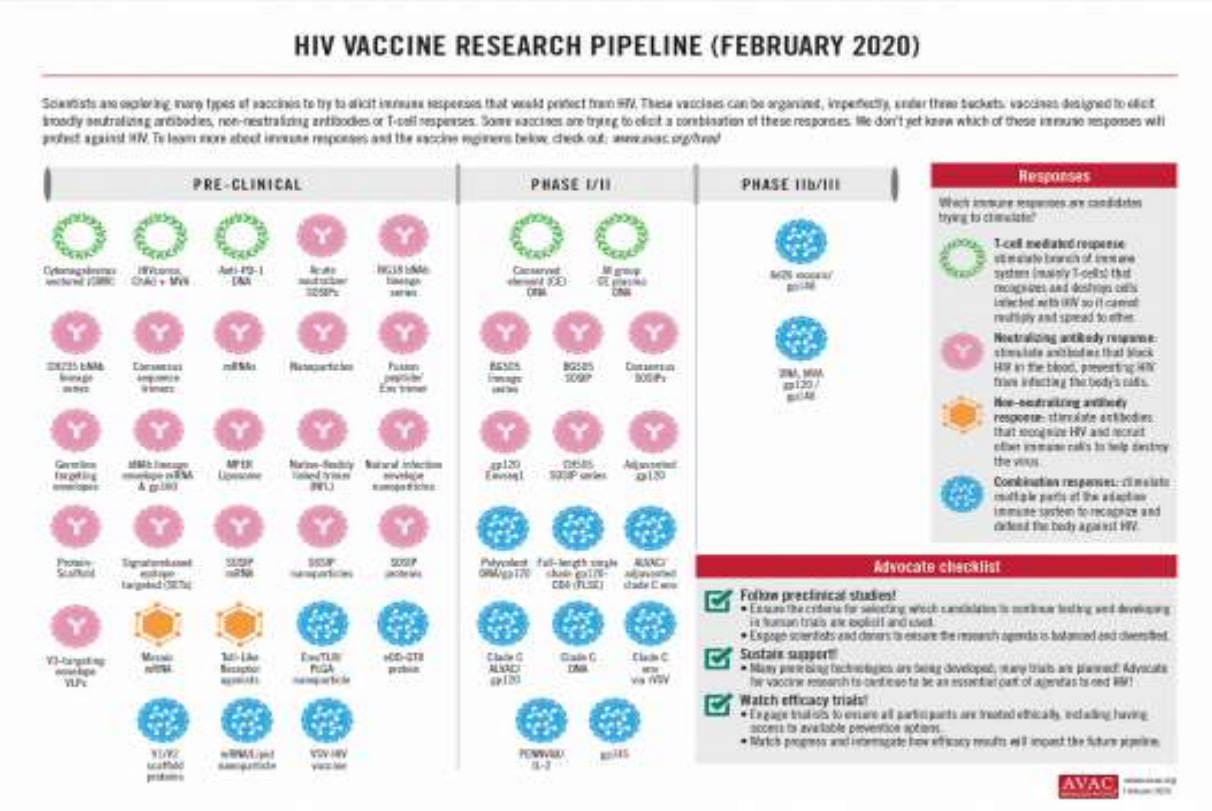
To facilitate the creation and publication of new vaccines, the WHO maintains a list of all vaccines in the "pipeline" for clinical trials.
Under 'Pipeline vaccines' is a list of some pathogens for which vaccines and/ or monoclonal antibodies (mAbs) that are in development.
Currently, it is said that around 2612 vaccines are being investigated for several infectious diseases, including Respiratory Syncytial Virus (RSV), dengue fever, and malaria; however, this article will focus on reviewing the vaccine pipeline for the following viruses: HIV, Tuberculosis and Malaria

- **HIV/AIDS:**

Human immunodeficiency virus (HIV) is an infection that attacks the body's immune system, specifically the white blood cells called CD4 cells. HIV destroys these CD4 cells, weakening a person's immunity against opportunistic infections.The CDC recommends testing at least once for all patients aged 13 to 64 years and among those who are at high risk of infection, such as injection drug users or individuals who have had multiple sexual partners.
Initial vaccine trials for HIV have been ongoing since 1987. Some difficulties with creating an effective HIV vaccine include creating an appropriate vaccine that will not mutate with the virus, accounting for many different subtypes of the virus throughout the world, and eliciting an effective immune response through stimulating antibody production, cellular immune response, and innate immune

response. Despite these adversities, there are 41 unique vaccines actively being investigated in various phase 1, phase 1b, phase 1/2a, phase 1/2, phase 2, phase 2b, and phase 2b/3 trials.6 The vaccine furthest along is ALVAC-HIV (vCP2438) + Bivalent Subtype C gp120/MF59.35 This vaccine is a **recombinant protein** that contains genes from HIV as well as MF59, a known vaccine adjuvant that stimulates a stronger immune response. The trial with this vaccine—currently taking place in Mozambique, South Africa, and Zimbabwe— was supposed to be completed in August 2021.

Despite progress in the fight against AIDS, the disease continues to impose a high human and financial toll, especially in Africa. Though prevalence and incidence rates are decreasing, they are still high enough to ensure that the epidemic will remain a huge social and financial burden in the comingdecades. In this environment, a moderately effective vaccine could play a critical role in reversing the epidemic, complementing the arsenal of other effective tools becoming available.



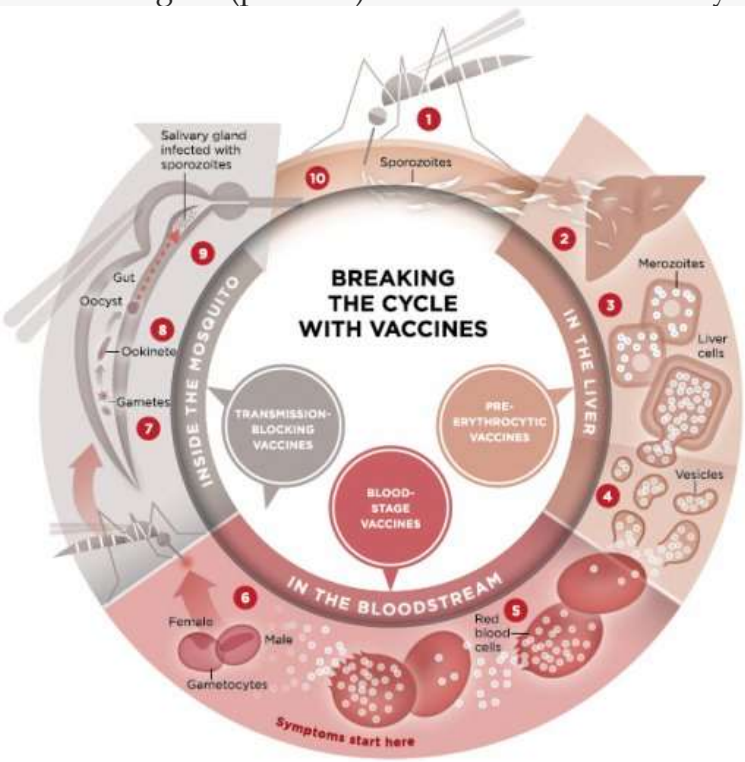
- **TUBERCULOSIS**

TB is caused by bacteria (Mycobacterium tuberculosis) and it most often affects the lungs. TB is spread through the air when people with lung TB cough, sneeze, or spit. A person needs to inhale only a few germs to become infected. Every year, 10 million people fall ill with tuberculosis (TB). Despite being a preventable and curable disease, 1.5 million people die from TB each year – making it the world's top infectious killer. TB is the leading cause of death of people with HIV and a major contributor to antimicrobial resistance. Most of the people who fall ill with TB live in low- and middle-income countries, but TB is present all over the world. About half

of all people with TB can be found in 8 countries: Bangladesh, China, India, Indonesia, Nigeria, Pakistan, Philippines, and South Africa.
The pathway is laid out in a series of tables which describe the stages and gate criteria for the development of a vaccine against TB, from discovery and initial stage of the design of the vaccine and its Target Product Profile (TPP), to launch and implementation in vaccination programmes. While the development path is organised by stages and gates, its management is structured by 'functions or 'expertise' needed to execute activities.

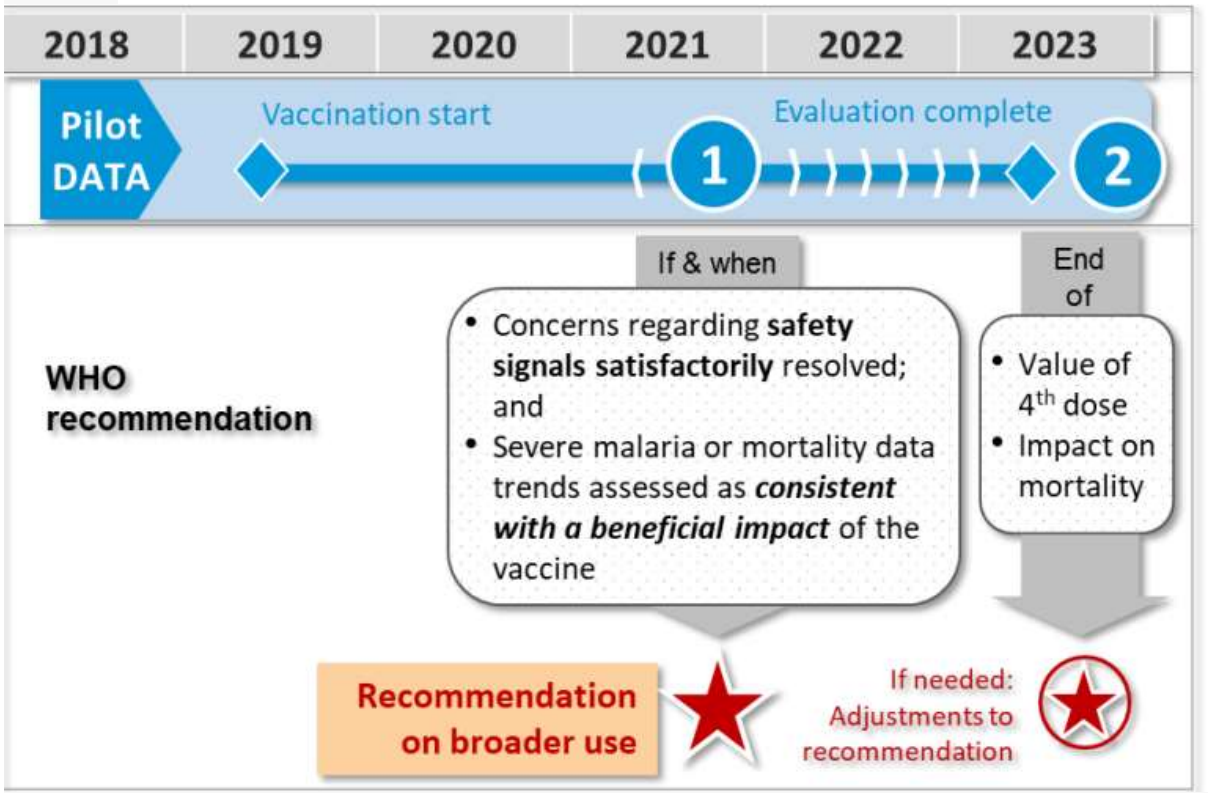
- **MALARIA**

The malaria parasite develops both in humans and in the female Anopheles mosquitoes. The size and genetic complexity of the parasite mean that each infection presents thousands of antigens (proteins) to the human immune system.



According to reports, in 2015, after more than 30 years in development, first malaria vaccine, GSK's RTS, S/AS01e ('RTS, S') received positive scientific opinion from the European Medicines Agency (EMA). In a Phase 3 trial of RTS, S, clinical malaria was reduced by 39% and severe malaria by 29% in 5–17-month-old children who received four doses, over 4 years of follow up. In 2016, WHO recommended that RTS, S be further evaluated through implementation pilots to address several key questions. This resulted in initiation of Malaria Vaccine Implementation Programme (MVIP), designed to deliver RTS, S through routine immunization programmes and collect evidence to address the questions. The pilots would address key questions related to the vaccine's role in reducing childhood deaths, its safety in the context of

routine use and the feasibility of administering the recommended four doses of the vaccine.



CONCLUSION

Vaccines are the safest and most effective prevention against infectious diseases, but further research and development are required. The Global Vaccine Action Plan 2011-2020 concluded its work this year, and one of its high-level recommendations included preparing to give populations the vaccines and care they need by planning for future development and implementation of vaccines. These benefits encompass not just the direct benefit of disease avoidance but also indirect benefits, including a reduction in medical and socioeconomic burden, quality of life associated with long-term adverse effects of infection, and antibiotic resistance development through reduction in antibiotic use in food-producing animals. Continued efforts by the WHO and other local organizations are needed to support and sustain vaccine research and development.

Aarya Menkudale
B.Pharm Second Year

GENERAL ARTICLES

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Energy Conservation: The Need of Time...

Can we live without energy? The answer is obviously No because we use various forms of energy in our day-to-day life like electrical energy, heat energy, mechanical energy and so on. Even human being need energy in the form of ATP which is the form of chemical energy driven indirectly from the ultimate source of energy called 'sun'. Energy is the ability to do work and it can be obtained from conventional and nonconventional sources. The energy sources that once exhausted do not replenish within a specific period called conventional sources of energy. This is fossil fuels like coal, petroleum and natural gases which are extracted through mining and drilling. The energy sources that are continuously replenished by natural processes are called non-conventional sources of energy. These are renewable sources of energy and include solar energy, wind energy, tidal energy, geothermal energy, biomass energy, etc.

The conventional sources of energy are abundant but as the population is increasing the need of energy is also increasing. Due to the limitations of conventional energy sources to supply such huge population, the prices of oil and gas continue to rise with each passing day. Moreover, production of energy from conventional sources causes huge environmental pollution like air pollution, water pollution, etc.

Whereas non-conventional sources of energy are renewable in nature, produce little or no pollution, required little maintenance and they are long term cost-effective choice of energy source but there are some difficulties in using them. They are the initial setup cost is greater, energy cannot be taken 24/7 because of variation in whether, in order to use energy must be stored, geographical locations can be challenging, etc. As the conventional sources are non-renewable one day they will exhaust, they cause huge pollution creates environmental hazards and as they are not sufficient for the increasing population required load shading because of which many people suffer.

Power cut affects students, small scale business, in village it mainly affects farmer. So, it is the need of time that we must shift from conventional sources to the nonconventional sources to fulfil our energy requirements. Solar energy is produced by sunlight. We can use solar water heater, solar cooler, solar photovoltaic, pumps for solar water. Wind energy is generated by harnessing the power of wind. Tidal energy is generated by exploiting the tidal waves of the sea. Biomass energy is derived from carbon- based waste from human and natural activities. These sources are available in nature in abundant quantity and free of cost. Also, the do not cause

any environmental hazards. Non-conventional sources of energy are much better than conventional sources.

The government of India launched the National Electric Mobility Mission Plan (NEMMP) 2020 in 2013.The aim was to achieve national fuel security by providing hybrid and electric vehicles in the country. But steps like that are not enough. Government should provide non-conventional sources of energy at affordable cost or give subsidy on it. This responsibility is not only limited to government but people also need to take part in it. Till shifting from conventional to nonconventional sources to conserve energy they can use various measures like switching off electrical appliances not in use, can use energy efficient appliances like LED bulbs and 5 star rated appliances, people can switch off their vehicles at red signal can save fuel, in kitchen use of pressure cooker or covering cooking utensil reduces the time of cooking the food which eventually reduce the use of LPG gas, people can also use public transport instead of private vehicles or adopt the methods like carpooling, this will not only save fuel but also reduces traffic on roads and air pollution caused by vehicles.

Ankit Anirudh Gedam
B Pharm First Year

Hybrid Education System

Technology has made a profound impact on the field of teaching and learning. Hybrid learning is a crucial development in the field of education that has only been possible due to technology.

What is Hybrid Education?

Hybrid education is a learning and teaching model where the needs of the instructors, students, and everyone that work at the educational institution are met through educational tools.

These tools are utilized to provide education to both in-person and online learners. Hybrid education offers flexible scheduling and can be tailored to the students in a way to close the learning gap and suit everyone. Additional tools are utilized to boost and support both student groups' educational needs.

Video conferencing, pre-recorded instructions, online discussion forums, etc., are some of the hybrid tools that have helped students grasp content better.

Hybrid Learning and Blended Learning

Hybrid learning is an educational approach where students choose between participating online or in person. It is an approach that favours individuals living in remote areas or overseas.

Blended learning, on the other hand, combines in-person education and online resources. Some activities are done in the classroom and some are done online. However, the main similarity is that both mix online and face-to-face learning.

Advantages and Disadvantage of hybrid learning

Advantages

1. Hybrid learning makes it possible to conduct a comprehensive evaluation of a student, peer optimization, and detailed and exact reporting with the help of technology.
2. More collaborative: Students and teachers are able to stay connected with each other continuously via online and offline sessions.
3. Facilitates instantaneous communication: Online communication tools ensure that students don't wait till the next meeting.
4. Leveraging the power of Artificial Intelligence, hybrid learning allows a teacher to understand a student's level of understanding and also their strengths and weaknesses.
5. Offers flexibility: Teachers and students can work at their own pace.
6. Ensures Individual attention: Blended learning environments mean more one-to-one interaction.
7. Facilitates interactive educational experience: The mix of technology and in-person learning makes it the most interactive experience possible.

Disadvantages

1. Lack of supervision: Teachers and parents are losing track of the student's actual progress as unsupervised study time is increasing in the name of flexibility.
2. Huge technological dependence: everyone is heavily dependent on the internet, apps available and computers or smart phones.

3. High costs involved: Not all can afford so many devices and a good internet connection.
4. IT literacy: Lack of basic understanding of online tools and technologies is a significant barrier for teachers.
5. Confusing for students: blended learning is a new world of learning for students and they might take some time to accept it.
6. Digital overload: Using smart devices constantly are causing much physical and emotional ill health.

Resources Required technologies for hybrid learning

- Computer
  A desktop computer or a laptop is required for hybrid learning. Many modern classrooms can implement hybrid learning with just laptops. Though it is not ideal, it is possible. Computers are great because they are very versatile and powerful.
- Video Technology
  Video technology is important for hybrid learning because many modern teaching strategies focus on student-centered learning.
- Microphone
  Microphones are another important element for hybrid learning. Many technologies will include a microphone option in their hardware.
- Collaborative Software
  Like Google classroom, the way to advanced systems purchased by your school district.

Conclusion

Hybrid learning represents a modern way of delivering education through both in-person and online instruction simultaneously. Its inception and evolution result from technological improvements. These technologies allow learning to occur both physically and virtually. Hybrid learning has several benefits. They include increased student participation, enhanced learning flexibility, increased access to education, and improved pedagogy. Thus, hybrid learning has a promising future as a medium for delivering education.

Ishwari S. Dabare
B Pharm Third Year

A Letter to Myself

Dear Me,
Hello dear stranger. How are you? Right. You must be wondering "how am I a stranger to myself?" Well, we think the person we know the most is ourselves. But if that is true then why do we regret our past decisions? Why we hate the things that we have done? Why we hurt the people closest to us knowing that it would tear us apart?

We do things that we don't want to, things that we would never do. But then why do we do it? The answer is simple, WE DON'T! It's that stranger inside of us that we don't know anything about. I know you must be smiling and thinking it's like blaming your faults and mistakes on someone else, but you are a part of me. No matter how much I blame you, it won't change that fact. The mistakes you do affect my life. The things you do make me suffer. And I hate you for that.

No, I don't hate myself. I would never do that. I lost a friend recently maybe because he started hating himself. Maybe he was hurting but no one could ever see that. I could not see that. Probably because we all are faking to be more hurt than others that the pain of others is completely blind to our stupid fake eyes. I could not help him and it's your entire fault. I keep wondering why he did what he did. But I get no answers 'because he took them all with himself. Why would anybody do that? Does it really feel better to let it all go and be vanished into nothingness? To leave everybody behind, suffering and crying. It's like passing the pain and sorrow that you had to your loved ones. He left like the Hannah Baker and left behind don't know how many Clay Jensens.

Like a meteor he blasted straight into my room, with that fake smile of his. And I, like everybody else, thought he was just another stupid extrovert trying to extend the list of people he called as friends. He was such an idiot, always smiling and laughing even at the lamest of jokes. If only I had known the pretence behind that laugh. And it was your entire fault.

We all suffer and go through bad days. And such cursed thoughts do come to my mind as well and I know they come into the minds of every other teenager like me. After all they are also blessed with a stranger like you. But I know I would never do what my friend did. Even after how much you have funned up my life, no matter how much you will in the future. I won't give up and I won't let anybody else give up. I won't let you make me hate myself.

No matter how much I say that I hate you, you will always be a part of me and without you I won't exist. No matter how much I blame you, I won't be able to forgive myself until I forgive you. I cannot separate you from myself 'because you are carved so deep in me. And so, I will accept you and live with you and learn to be better. I will accept that YOU ARE ME. I will accept the decisions that you took so far are my decisions as well. I promise that I will start knowing you and make you better as well. I will start loving you and with that I will start loving myself more than ever before.

So, to Mr. Stranger and to all the people who had started hating themselves and gave up. Don't be sad that you let others down. The hurt of you going away will always be there but with time it will fade away and in the end, we will only be left with love. And so with that I, on behalf of all the people living in this world, love you and let you go! I will miss you and I hope that wherever you go next you will find peace and happiness like you never did before.

Yours Truly

Sumit T. Wathore
B. Pharm First Year

Deep Work-The super power of the 21st century

As a human, what makes us different from other animals and Machines i.e. Intelligence. To create something valuable from your Intelligence needs deep work. When you read the title one question may come to mind: what is deep work and why is it said that it is a super power of the 21st century.

What is deep work?

Deep work is term coined by Cal Newport who is Ph.D from MIT Boston and Professor of computer science at George town University USA. The concept of Deep Work is well explained in his book Deep Work

Deep Work Hypothesis by Cal Newport:

The ability to perform deep work is becoming increasingly rare at exactly the same time it is becoming increasingly valuable in our economy. As a consequence, the few who cultivate this skill, and then make it core of their working life will thrive

Deep work-Professional activities performed in a state of distraction free concentration that pushes your cognitive capabilities to their limit. These efforts create new value, improve your skill, and are hard to replicate

Deep work is work that is done in a distraction free environment with intense focus to create new, valuable things which are very hard to replicate or copy. One of the best examples is the Harry Potter Novel written by J K Rowling by using Deep work. The type of work that optimizes your performance is deep work. The reason why it is said superpower: The economy we live in now is a knowledge economy (information economy) in which production of goods and services is based principally on knowledge intensive activities. To remain valuable in economy one must develop two core abilities to thrive in the new economy:

- Ability to quickly master hard things
- Ability to produce at an elite level, in terms of both quality and speed

To develop above two core qualities requires deep work. If you don't cultivate this ability you are likely to fall behind as technology advances

In this Information Economy only three types of people will thrive:

- Those who have capital,
- Those who can work with Technology and Smart Machines,
- Expert in their Field,

Above two options are not suitable/possible for everyone but the third option is possible for everyone. To become an expert in your field you will have to perform deep work. There is no option to Depth when you want to gain expertise in any field. The more in- depth knowledge you have the better insights can be generated from your knowledge and wise decisions can be taken. For gaining knowledge and

Expertise deep work is fixed. Before knowing more about Deep Worklet's see law of productivity

High Quality work produced= Time Spent × Intensity Of Focus

If we see the above formula the more intense your focus is the better the quality of work produced. There is also one type of work that we do every day i.e. Shallow work Shallow Work: Non-Cognitively demanding, logistical style tasks, often performed while distracted. These efforts tend to not create much new value in the world and are easy to replicate. Ex. Checking Emails, Instant Messaging, Editing Article on MS word The Repetitive nature work comes under the category of shallow work. The shallow work is done with other distractions.
The bad thing about shallow work is attention residue.
Sophie Leroy, a business professor at University of Minnesota published the paper "Why Is It So Hard to Do My. Work?" She introduced an effect named 'Attention Residue'. The problem her research identifies is that when you switch from Task A to another Task B, your attention doesn't follow— a residue of your attention remains stuck thinking about the original task. The residue of previous task creates poor performance in our next task. When you switch from one task to another without completing your first task you pay switching cost in terms of attention residue. Deep work helps you eliminate chances of attention residue because the work is performed in distraction free environment and only one task at a time in hand

Methods of Deep Work
All the four method requires primary condition that they should be performed in distraction free environment
Monastic Method: In this method you isolate yourself completely from the outside world to work on your goal/project. This method is not always feasible for everyone. Best example of this method, In1970s When Bill Gates worked consistently 8 weeks on BASIC programming language. This programming language then became the basis for Multi-Billion Dollar Company Microsoft Software. Bill Gates also celebrates two Think Weeks in Year for thinking deeply on vision and policies of Microsoft with this monastic Method of Deep Work

Bimodal Deep Work: This method is for those who can't completely isolate themselves from their normal life but for a specific period they can do deep work. Isolate yourself for some time as J K Rowling did when she was writing the last book (The Deathly Hallows) of the Harry Potter Series. She was struggling to complete this book because of distractions like kids and barking of dogs. She booked hotel room and when she has to write she would go to hotel and after finishing her work come back to home in her normal life

Rhythmic Deep Work: Fix any particular time of the day when you are most productive. At this allotted time you will do deep work and other times will do shallow work.
Journalistic Method: Like a journalist when you find free time then isolate yourself and cut off all distraction and do deep work. This method is used by Cal Newport who is author of Book Deep Work. As he is professor when he gets free time and isolate him from all distraction to do deep work

Things to Consider When you Do Deep Work:

- At least have 2 Deep Work sessions in a week
- If you are just starting don't keep your first session more than 3 Hrs
- Keep your Workplace Clutter free, Clean and Dedicated to your Goal of Deep Work
- Always have a Notebook or any Diary for Account ability: Time Invested V/s Results achieved through deep work
- Keep Away All the Distractions like Your Smart phone and Internet
- Ensure that no one will disturb you until you complete your deep work Session
- Create No Compromise Zones around You

Rules for Deep Work:
Rule #1 Work Deeply:
Rule #2 Embrace Boredom:
Rule#3 Quit social media
Rule#4Drain the Shallows

If you want to know more about this concept in detail. Then please read Deep Work by Cal Newport

Thanks for Your Kind Attention…

Vikee R. Dhakulkar
B.Pharm Third Year

Science Is a Beautiful Gift to Humanity, We Should Not Distort It

Since I was born in village, I found myself very close to nature and developed a keen interest in science right from the childhood. One good thing about science is that its 'TRUE' weather you believe it or not. It is a way of life. Science is to explore the nature. Many scientists contributed in the field of science. Our country India has witnessed some of the finest scientists in the World, like Dr. CV Raman, Dr. Homi Bhabha, Dr. APJ Abdul Kalam, and Dr. Jagdish Chandra Bose. My favorite scientist of them all is Dr. Vikram Sarabhai, also known as Father of Indian Space Program.

I come to know about life of Dr. Vikram Sarabhai from the informative TV series 'Rocket Boys'. He was born on12th August 1919in a city of Ahmadabad. Son of Ambalal Sarabhai, he came from the famous Sarabhai family from India who were major industrialists. He had a dream to make a Rocket right from the childhood. He attended GujaratCollege, Ahmadabad. Once in a college fest where he meet Mrinalini. She was a classical dancer. Vikram could not resist her. He fell in love with Mrinalini and married her without knowledge of the Family. He was such a polite and humble man, dedicated to his work like no other. He shares his dream with Dr. Homi Bhabha and work with him tirelessly. In 1945 he returned to Cambridge to pursue PhD and wrote a thesis, "Cosmic Ray Investigations in Tropical Latitudes" in 1947.

The initial focus was research on cosmic rays and the properties of the upper atmosphere. Research areas were expanded to include theoretical physics and radio physics later with grants from the Atomic Energy Commission. He led the Sarabhai family-owned business conglomerate. His interests varied from science to sports to statistics. He set up the Operations Research Group, the first market research organization in the country. Most notable among the many institutes he helped set up are the Nehru Foundation for Development in Ahmadabad,the Indian Institute of Management. Along with his wife Mrinalini Sarabhai, he founded the Darpana Academy of Performing Arts.

Sarabhai started a project for the fabrication and launch of an Indian satellite. As a result, the first Indian satellite, Aryabhata, was put in orbit in 1975 from a Russian commodore. He was the founder of Indian Space Research Organization.He was awarded with Padma Bhushan in 1966 and Padma Vibhushan in 1972. He got international recognition as Father of Indian Space Program. On 30 December 1971, Sarabhai was to review the SLV design before his departure for Bombay the same night. He had spoken to A. P. J. Abdul Kalam on the telephone. Within an hour of the conversation, Sarabhai died at the age of 52 due to cardiac arrest in Trivandrum. His body was cremated in Ahmadabad.

Though he left his body, his contribution to the defence of the country and physics can't be matched. He explores the vast boundaries of science and left his legacy for the country.

Shubham R. Ramdham
B.Pharm Third Year

Why and Who?

Known by the phrase “The man who knew Infinity”. Srinivasa Ramanujan was an Indian mathematician who continues to inspire and motivate me in various aspects of life. SrinivasaRamanujan is one of the most enigmatic figures in the history of mathematics. His dedication and fascination with mathematics defines what actually dedication is, even if you don’t have the so-called materialistic objects.

He was born on 22nd of December in 1887, in Erode, Tamil Nadu. He lived during the British rule in India. Despite of having no formal training in pure mathematics, his exceptional dedication towards the subject made him to contribute his work to mathematical analysis, number theory, Infinite series and many other mathematical problems which were considered unsolvable. During his life, Ramanujan compiled nearly 4000 equations and identities independently. This made the doors open to entirely new areas of work and research. He was also the one to become ‘Youngest Fellow of Royal Society ‘and the only second member of India to be elected as a ‘Fellow of Trinity College Cambridge ‘.

Ramanujan led a tough life, both financially and also by considering the health issues he faced. Considering the financial issues, it is said that he used to solve equations of mathematics on a slate with a chalk in order to avoid usage of papers. He would only write the results on a paperto minimize the usage ofpapers. He was so indulged in his own mathematical world that he often used to fail his nonmathematical exams. He secured prizes and scholarships all related to mathematics which allowed him to get admission in Government ArtsCollege. Despite the issues any normal person would complain of, his exceptional keenness didn’t stop him to anywhere less. He was a self-taught mathematician whose extraordinary talent was reflected when he exhausted college level mathematics courses while he was a teenager. His fascination climbed new heights when he came across a book by G. S Carrs. After his acquaintance with this book, he started developing his own theorems at home. His extraordinary and never tiring efforts are something that must be implemented in self life.

Belonging from a Hindu Brahmin family he was a firm believer of divinity, considering his family background. It is known that his mother used to sing religious songs in a local temple. From his mother, he learned about the traditions and *puranas*and maintained particular eating habits. He also has wisely said “An equation for me has no meaning unless it is expressed as a thought of almighty”. His personality has been described as a shy and quiet personwith pleasant manners. His extreme optimism and selfless devotion towards his work of interest captivates and motivates me to do work whatever of interest with all your might and devotion. This quality of him made him achieve milestones of success and appreciationat a very young age. As mentioned earlier, although he had no formaldegree in mathematics, his devotion gained him global recognition where people drew him with greatest minds in field of Mathematics from past centuries.

Today, even after a century after his death, his exceptional fascination about Mathematics and his achievements continue to inspire young minds. He is the best example of accomplishing a goal when you have nothing but your stubborn willingness to achieve it. He lived a short yet spectacular life which made many other mathematicians re-think about the pre-existing. His contributions in the field of Mathematics are so significant and inspire many other young minds. He died at the mere age of 32 after he was diagnosed with tuberculosis

and severe vitamin deficiency. It is believed that his health worsened in England due to the difficulty in maintaining strict diet while war-time. Ramanujan taught me that in order to achieve something extraordinary, the efforts that are needed for such achievement should be extraordinary and resolute. He remains the idol of hard work andtired lesseffort for accomplishment of a goal. His knowledge about mathematics was astonishing even though he was to a great extent completely unaware of the modern developments in mathematics. However, his mastery of continued fractions was unparalleled to any existent mathematician.

SrinivasaRamanujan is the man who knew Infinity. SrinivasaRamanujan has been on all Magazine Covers, won every recognition, and has also been adopted as a feature movie but all this happened after he died proving his theorem and himself apparently. The untold story of SrinivasaRamanujan inspires people to do things that make them happy, no matter what the world thinks of them. Every person has a story which inspires and makes people re-think and realize what actually life is about.

Poem/कविता

My Counsellor

From where, did you find that courage mom
To fulfil my wishes
To be a healer, good wisher, friend and my whole life
To me till my last breath.

How did you do it all, Mom?
Be a nurse, my cooking, teacher
I am may be not your first love
But you are my first love forever

Even if I don't talk too much on phone call
But without listening your words of careness not become a good day for me
When I come home and see you that are the feeling satisfaction made me fall
Mum, I love you more than I express it to you.

From where did you find trust on me even after too much disappoints from me
Mom, I know I am not a good child but I am trying my best to be
When my own expectations kill my mood
How can you guess the reason for mood swings?

How can you respawn your efforts to take my care Mom?
You are sunlight, I am yours moonlight
I just want long walks, long talks with you
Mum, I love you more than I give it to you.

Tejas Dhande
B.Pharm First Year

The Goddess Within!

Every women who awakens Courage within herself is
Durga.
Every woman who awakens Transformation within herself is Kali.
Every women who awakens devotion within herself is
Parvati.
Every women who Nurtures within herself is
Annapurna.
And every women who awakens the Shiva within herself is Shakti

-- Priyanka G. Singh
B.Pharm First Year

Who are WE

Talking, smiling and sharing
Drugging the other as the blessing
Filling one's heart with hope
Without risking of any guessing
We are the one's behind the shades,
Working our way up the better stairs,
Grabbing info of the cause,
Providing every tiny detailed care,
Like analgesics for pain,
CNS stimulants for brain,
Everything we've ever learnt
Doesn't goes in vain,
Wearing the white coats with smiles,
Paying attention & aiding to perfection,
Making our ways to cure & heal
We are PHARMACIST by profession.

Pooja Kolhe
B.Pharm First Year

“Alien”

The only thing predictable about life is, its unpredictability

Anyone can be anything, you can be everything,

Falling down, I’m alien on this earth

I don’t seem to be long anywhere by myself

No matter how much I smile, I feel so lonely

Like alien trying to blend in with earthlings

No one can hear me when I try and say something I crash-landed in strange place,

And at first, I was full of expectations

My tears build up when the night turn black because my confidence can also be hated

I’ve lived like I was dead and suddenly, I’m all alone and faraway

Like an alien on the earth

I wish I could be happy for a moment until the darkness surrounds me, like a sun surrounded by clouds

Even if no one cares, I am exhausted with a vow, I promise won’t fall over

The countless dreams I saw, fading in the dark

Even if everything collapsed, I am trying to hold that dream in my arm in my world of darkness I am trying to become light for myself

As an adult in the world full of race I am trying to be my pace like an alien on the earth

Pranjali Pokale

B.Pharm Third Year

❝मला फक्त मीच जवळून पाहिले❞

न त्याने पाहिले, न तिने पाहिले

मला फक्त मीच जवळून पाहिले

लोटांगण सुखाचे कधी घेतले

अन्दुःखाला समुद्रात कधी वाहिले

काहूरल्या दाही दिशा भीतीने

तरी कडेकपारीतून रांघत राहिले

मला फक्त मीच जवळून पाहिले

झिजले पाय तरी चालत राहिले

फाटक्या पदरातुन सांडत राहिले

सावरण्यास कोणी न शिकविले

मीच मला पुढे पुढे घडवत राहिले

मला फक्त मीच जवळून पाहिले

न त्याने पाहिले, न तिने पाहिले मला फक्त मीच जवळूनपाहिले

खुशी पाटील

बि.फार्म चतुर्थवर्ष

❝ अस्तित्व ❞

वो जब अपने सपने पुरे करना चाहती है,
तब वो सब से पहले किस के तरफ देखती है?
हर बार वो जब पढाई में अव्वल आती है,
तो और पढने के लिये किसी की इजाजत क्यू मांगती है?

वो जब शादी कर के दुसरे घर में जाती है,
वहा उस के सबसे करीब कौन होता है?
जिसे देवता बनाकर जीवन भर पुजती है,
क्या उसे उनसे उतना सम्मान मिलता है?

उमर ढल ने लगती, फिर भी वो सुंदर दिखना चाहती है,
तब उसे समाज में शर्मीन्दा क्यू हो ना पड़ता है ?
बेटा, पती कमाते फिर भी आत्मशांती के लिये काम करती है,
तब घर में उस के काम का उतना मूल्य क्यूँ नहीं होता है?

ये हर औरत की अस्तित्व गाथा जो सदियों से चलती आयी है,
क्या इक्कीसवी सदी उस के जीवन में वाकई प्रगती लाई है?
एक माँ, बेटी, पत्नी होने से पहले क्या एक इंसान हो ने की औरतने पहचान पायी है?

खुशी पाटील
बि.फार्म चतुर्थवर्ष

स्वामी विवेकानंदांच्या स्वप्नातला युवक असावा असा...!

चेहऱ्यावर तेज आहे
देशा मध्ये शक्ती आहे
मना मध्ये उत्साह आहे
बुध्दी मध्ये विवेक आहे

हृदयामध्ये करुणा आहे
मातृभूमी वर प्रेम आहे
इंद्रियांवर संयम आहे
मन ज्याचे स्थिर आहे

आत्मविश्वस दृढ आहे
इच्छा शक्तीप्रबळ आहे
धाडसाचे बळ आहे
सिंहासारखा निर्भय आहे

ध्येय ज्याचे उच्च आहे
सत्य ज्याचा ईश्वर आहे
व्यसनांपासून मुक्त आहे
जीवनामध्ये शिस्त आहे

प्रेमळ ज्याचा सूर आहे
मानवता हेच कुळ आहे
गुरूजनांचा आदर आहे
पालकांवरती श्रध्दा आहे

दीन-दुबळ्यांचा मित्र आहे
सेवेसाठी तत्पर आहे
देवावर भक्ती आहे
जीवनामध्ये नीती आहे

चरित्र ज्याचे शुध्दआहे
तोच आदर्श युवक आहे.

भाविका बिरपन
बि.फार्म प्रथम वर्ष

आयुष्याची शाळा.....

ज्यात भूगोलच्या पुस्तकातील कुठला नकाशा सांगणार नाही दिशा माझी...
ना इतिहासाचे पाने पलटून पाहू शकेल दशा माझी...
इथली गणितं पानांवर सोडवण्याइतकी सोपी नसते..
की काहीतरी विज्ञानासारखे चमत्कार होईल अशी आशा ही नसते....
तिथे 'कौन्सटंट्स' तरी असतात इथे तर 'वेरियेबल्स' चेचं जग आढळते....
तिथे 'एक्सेपशन्स' ला 'एक्सेप्शनचं' म्हणतात
इथेतर 'युनिकनेस' च्या 'टॅग' खाली 'एक्सेप्शन' पण झाकलेले असते..
इथे नात्यांना जोडायला कुठल्या भाषेतील काना , मात्रा, विलांटीची अपेक्षा नसते..
की तोडायला 'हायफेन', 'कॉमा', सेमिकोलॉन या क्षुल्लक चिन्हांची ही गरज नसते.....
इथे कोण ,कसं ,कुणाशी जुळलंयाची 'थिअरी' कधी मांडली जात नाही.....
'प्रॅक्टिकली' विचार करा जे मनतात, त्यांना आयुष्याची व्याख्याचं कदाचित शेवटपर्यंत कळणार नाही.....

अमृता बोरखडे
बि.फार्म तृतीय वर्ष

पोरीच्या रं बापा.....

ती जन्माला आली की लगेच लडा तिचा लागतोना..
हळूहळू चालेल जेव्हा बोट तिचं नेहमी तसचं धरावसं वाटतेना..
मोठी कधीच होऊ नये चिमुकली तुझी ,असं मन तुला बोलतेना..
बोट सोडून तुझे ती धावली की, दूर काहीतरी गेल्या सारखं वाटतेना..
इच्छा तिच्या छोट्या छोट्या, तुला तुझ्या वाटतात ना..
शिकून खूप मोठी झाली लेक, छाती तुझे फुलतेना..
आली वेळ ,,तिला जावा लागेल सासरी !! लपूनलपून तू रडतोना...
ज्या चिमुकलीला बोट धरून चालवलसं तू तिने पुन्हा लहान होऊन बाबा बाबा म्हणत मागे लागावे असे तुला वाटतेना..
कोणी बनवले हे नियम...याचा हेवा तुलाही वाटतो ना..
काळजाच्या तुकड्याला दूर जाताना पाहून गळा तुझा ही दाटतोना....

अमृता बोरखडे
बि.फार्म तृतीय वर्ष

माँ– तुमसे एक सवाल.....

हजारों इच्छाएं मनकी मारकर,
कैसे सबकी फरमाइशें पूरी कर लेती हो?
सबकुछ सहकर
कैसे मुस्कुरा लेती हूं?
इतना काम करती हो तुम
फिर भी थकान अपनी कैसे छुपा लेती हो?
सब की शिकायते ,अनबन
कैसे सुलझा लेती हो?
अपने ज़िन्दगी को दर किनार कर
कैसे सबकी खुशी में खुशी ढूंढ लेती हो?
अलग अलग विचारो को
कैसे एकसाथ सहेज लेती हो?
सवाल मै बोहत करती हूं तुम से
पता नहीं कैसे सब के जवाब बांधलेती हो!!

अमृता बोरखडे
बि.फार्म तृतीय वर्ष

माझी आई

माय माझी माऊली, देई पदरा ची सावली,
भाग्य माझे मला ती पावली ||
नसायचा गळ्यात मोत्याचा हार,
नाही डोक्याला काजळाची किनार,
तरी ही दिसायची ती सुंदर फार ||
अंगावर नसायची भरजरी लुगडी ,
तरी ही तीचे सौंदर्य अस्सल बेगडी ||
आमच्यासाठी बनायची कधी दुर्गाई,
तर कधी बनायची जीजाई ,
आजही पाठीशी आहे तीची पुण्याई।।
एके दिवशी अचानक आकाशात गेली भुर्रकन उडून,
आम्हा भावंडांना गेली एकटे सोडून||
असेल माझ्यापाशी माझं गोकुळ,
आज ही तीच्या आठवणीने जीव होतो व्याकूळ||
अशी होती माझी आई....

साक्षी पांससनकर
बि.फार्म दुसरे वर्ष

एक चंदन का पेड़ हूं मैं...

एक चंदन का पेड़ हूं मैं...
विख्यात हुं मैं जग मे
अपनी महकती सुगंध से।
खिल जाता हूं कही कविओ के मन में
तो कही कविताओ में उपमा से।
गुणधर्मसे शीतल हूं
सबकी पसंदमे आता हूं।
महक तो देता हूं सब को
पर स्वयं घिसता चला जाता हूं।
शोकसे फैलता हूं अपनी खुशबु की चादर
जिस मे हर कोई समिलित होना चाहे।
कायर और मतलबी ये दुनिया
विषधर की डरसे कोई समीपना आऐ।
जाना माना हूं सब में
पर कोई अपना नहीं है।
जताऊ स्नेह बताऊं बाते
ऐसा कोई मित्र नहीं है।
सोच रहा हूं खिन्नता से और
खुद को द्रुढ बना रहा हूं मै।
अपनी व्यथा सुना रहा हूं
एक चंदन का पेड़ हूं मै....।

पायलमा. मोहिते
बि.फार्म द्वितीय वर्ष

Student Achievements

GCOPA-Institute Innovation Council (IIC) 4.0	
Celebration Activities	Winner
National Pollution Control Day 2 December 2021 "Essay Competition" Topic: Impacts of Pharmaceutical Industry Pollution	Vikee R. Dhakulkar B.Pharm III Sem VI
National Innovation Day Celebration 15 October 2021 "Slogan and Poster Competition" Theme: Innovation (The Indian Perspective)	**Poster-** Pavan Deokar B.Pharm Third Year **Slogan-** Shejal Mohan Gadade Pharm.D Second year
India Startup Day Celebration 30 November 2021 "Graphical Abstract Competition" Topic- Case studies of Indian Startups in different themes	Mallesh Bhalekar B.Pharm Third year
National Science Day Celebration 28 February 2022 "Essay Competition" Topic- Who is your favorite scientist and why?	Shubham R. Ramdham B.Pharm Third Year
"Essay Competition" Theme: Famous IPR Cases from India on the occasion of World Intellectual Property Day Celebration 26 April 2022	Hemant S. Kalantri B.Pharm Fourth Year
"Essay Competition" Theme: An Integrated Approach to Science and Technology for a Sustainable Future on the occasion of National Technology Day Celebration 11 May 2022	Bhagwat T. Kale B.Pharm Third Year
Poster Competition" Theme: Celebrating 75 Years of Independence 11-17 Aug. 2022	Dhanashree L. Nandendkar Pharm.D Fourth Year Om. P. Khadarkar Pharm.D Fourth Year

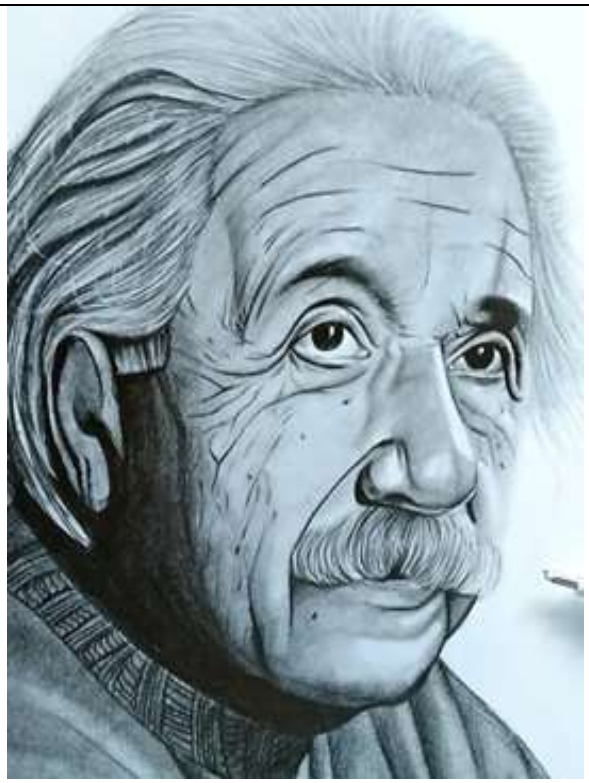
Fine Art

Pritesh Pandey Pharm.D First Year

Raj Jayade B.Pharm Sem II

Nidhi Pohare

B.Pharm Sem II



Janhvi Bhetalu
B.Pharm Sem II

Janhvi Bhetalu
B.Pharm Sem II

Tejas G. Dhande
B.Pharm Sem II

Akshay Udapure
B.Pharm Sem II

Akshay Udapure
B.Pharm Sem II

Prashant Wathore
B.Pharm Sem VI

Purva Manoj Manekar
B.Pharm SemVI

Prashant Wathore
B.Pharm Sem VI

Samiksha Nimje B.Pharm Sem VI

Khushi Patil B.Pharm Sem-VIII

Chaitanya Taksande
Pharm.D First Year

Chaitanya Taksande
Pharm.D First Year

Chaitanya Taksande
Pharm.D First Year

Pratik Khandakale
Pharm.D First Year

Shruti Kahane
Pharm.D First Year

Divya Nimje
Pharm.D First Year

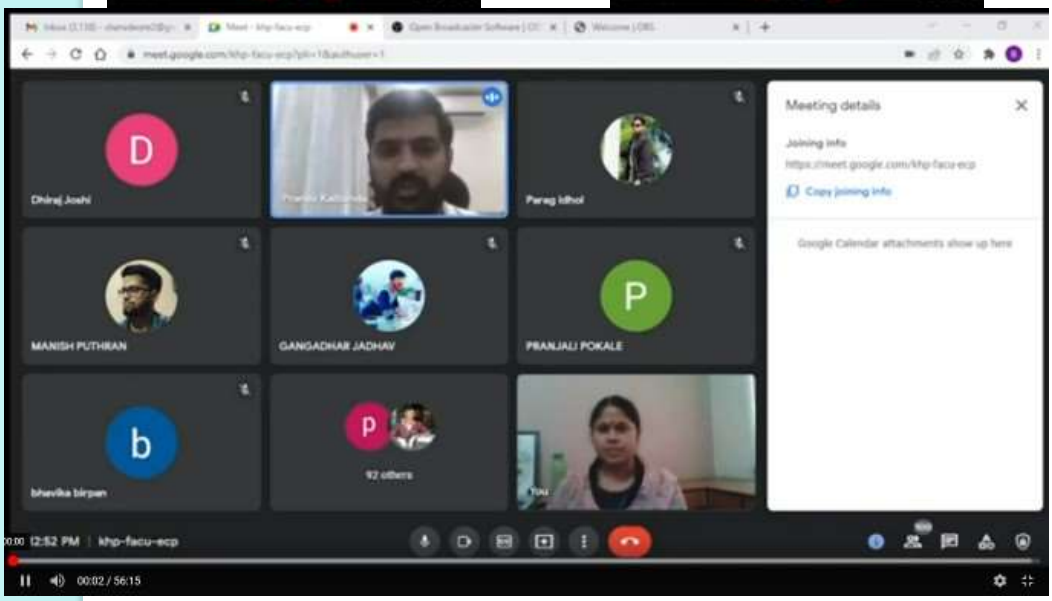
Shruti Kahane
Pharm.D First Year

Khushi Patil

B.Pharm Sem VIII

GCOPA Programs

Motivational Session by Successful Entrepreneur



Motivational Session by Successful Entrepreneur [Import-Export]

"आयुष आपके द्वार "अंतर्गत"मोफत औषधी वनस्पती वाटप"

शासकीय औषधीनिर्माणशास्त्र महाविद्यालय, अमरावती यांच्यामार्फत "आयुष आपके द्वार"अंतर्गत "मोफत औषधी वनस्पतीवाटप"हया राष्ट्रीय मोहीमेचा प्राचार्य डॉ. सोमशेखर खडबडी यांच्या हस्ते दिनांक ३ सप्टेंबर २०२१ पासूनशुभारंभकरण्यात आला आहे.

सदर कार्यक्रमास डॉ. पी. डी. देशमुख, प्राचार्य, पी. आर. पोटे कृषि महाविद्यालय, अमरावती व श्री. आसिफ आली, निवृत्त कृषि अधिकारी, अमरावती यांची विशेष उपस्थिती लाभली.

रोगप्रतिबंधक औषधी - गुळवेल, खंडूचक्का, बेहेडा, कोरफड, निर्गुंडी, अडुळसा, शतावरी, पानओवा, कडीपत्ता, तुलसी, हाडजोडयातील १००० वनस्पतींचे मोफत वाटप डिसेंबर २०२१ पर्यन्त फक्त घरगुती वापरासाठी करण्यात येणार असल्याने अमरावतीकरानी लाभ घ्यावा असे आव्हान सहयोगी प्राध्यापक डॉ. शारदा देवरे यांनी केले आहे. तसेच औषधी वनस्पतींच्या रोपांची निर्मिती, शास्त्रशुद्ध लागवड, काढणीपश्चाततंत्रज्ञान, औषधी वनस्पतींच्या बागांची निर्मिती, बाजारपेठा उपलब्धता, रोपवाटिकांची निर्मिती या साठी व्हाट्सएप चर्चासत्रांद्वारेशेतकरी, आदिवासी, विद्यार्थी, संशोधक, उद्योजक, प्रक्रिया करणाऱ्याकंपन्यांना मार्गदर्शन करण्यात येणार असल्याने जास्तीत जास्त इच्छुकांनी सहभागी (व्हाट्सएपग्रुप "औषधी वनस्पती लागवड"-९७६६५७७६४७) व्हावे असे आव्हान प्राध्यापक डॉ. शारदा देवरे यांनी केले आहे.

औषधी वनस्पतींच्या रोपांच्या निर्मितीसाठी समन्वयक प्रा. शारदा देवरे, प्रा. भूषण बाविस्कर, महेश वाहने (संचालक अवनी नर्सरी, अमरावती), श्री. संजीव मधापुरे, श्री. सुरेश वानखेडे, श्री. गणेश असोलकर, एम. फार्म विद्यार्थी विकास घाईट, राम विघ्ने, स्नेहल पाटील, कीर्ती देशमुख, पी.एच.डी विद्यार्थी अंजली किडे व भावना शेंडे यांचे सहकार्य लाभले.

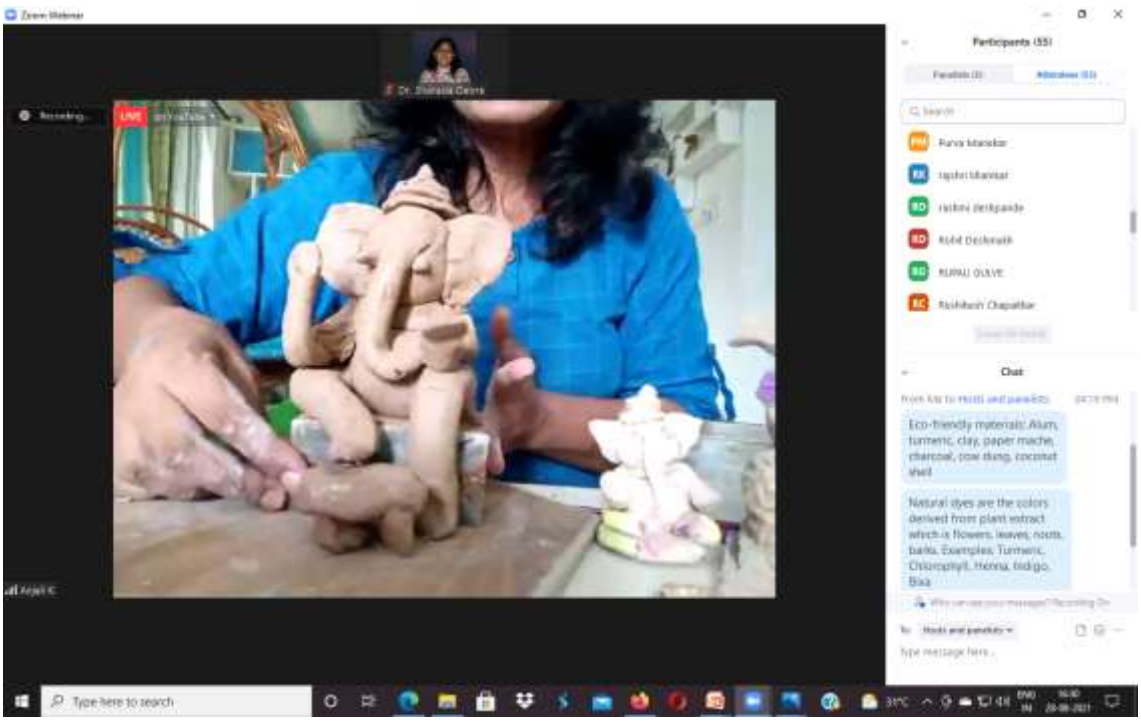

आयुष आपके द्वार

Govt. College of Pharmacy, Amravati
Maharashtra

National Medicinal Plant Board (NMPB)-Ministry of AYUSH, India
Sponsored
Under National Campaign On ***"Tinospora cordifolia -Amrita for Life***
Theme: "*Tinospora cordifolia* (Giloy) for Socioeconomic Empowerment"
Topic: Cultivation, Processing and Marketing of value added products of Giloy by Tribal and Farmers

Giloy Cultivation and Value Added Products Development Awareness
2 Sept. 2021

Eco-friendly Ganesha Making Workshop 28 Aug. 2021



Soft Skill Training& Student Orientation Program

15/04/22-17/04/22

GCOPA-NSS UNIT

Activities

कोवीड-१९ चा प्रादुर्भाव लक्षात घेऊन शासकीय औषधनिर्माणशास्त्र महाविद्यालय अमरावती येथे आभासी पद्धतीने दिनांक २१ जून २०२१ रोजी आंतर राष्ट्रीय योग दिन ऑनलाईन पद्धतीने साजरा करण्यात आला याप्रसंगी कार्यक्रमाचे अध्यक्ष महाविद्यालयाचे प्राचार्य डॉ एस. एस. खडबडी हे होते तसेच कार्यक्रमाचे प्रमुख पाहुणे व योग प्रशिक्षक म्हणून प्रा. राजेश जाधव, द्रोपदीबाई देशमुख कनिष्ठ महाविद्यालय, बेलोरा उपस्थित होते. यावेळी प्रा. जाधव यांनी उपस्थितांना मार्गदर्शन केले की शारीरिक आणि मानसिक आरोग्याची ठेवण म्हणजे योग. तसेच त्यांनी योगाचे प्रकार व त्याचे फायदे याचे प्रशिक्षण दिले व विविध योगासने उपस्थितांकडून करवून घेतली. सदर कार्यक्रमाचे आयोजन महाविद्यालयाच्या रासेयो विभागाद्वारे करण्यात आले. कार्यक्रमाचे सूत्रसंचालन, पाहुण्यांचे स्वागत व आभार प्रदर्शन डॉ. कुंदन पाटील यांनी केले या कार्यक्रमावेळी शिक्षक, 'आर्ट ऑफ लिविंग' चे सदस्य, शिक्षकेतर कर्मचारी, रासेयो स्वयंसेवक व विद्यार्थी उपस्थित होते. विविध योग प्रकार करून संकल्प व शांती मंत्राने प्रार्थना करून कार्यक्रमाचा समारोप करण्यात आला.

केंद्र सरकार पुरस्कृत जलशक्ती अभियानाअंतर्गत संत गाडगे बाबा अमरावती विद्यापीठाच्या राष्ट्रीय सेवा योजना विभाग, सामाजिक संस्था आणि भूजल संवर्धन विभाग यांचे संयुक्त विद्यमाने आयोजित संवाद यात्रा अमरावती जिल्ह्यात दि. ३०-३१/०५/२०२१ रोजी आभासी पद्धतीने झूम मीटिंगद्वारे आयोजित करण्यात आली होती. या **भूजल संवाद यात्रेत** महाविद्यालयाचे कार्यक्रम अधिकारी डॉ. कुंदन पाटील उपस्थित होते तसेच महाविद्यालयाचे विद्यार्थीदेखील यू ट्युब लिंकद्वारे या संवाद यात्रेत

सहभागी झाले. यावेळी उपस्थितांना कुलगुरू डॉ. मुरलीधर चांदेकर, डॉ. राजेश बुरंगे, संचालक, रासेयो, अमरावती, श्री. अरविंद कडबे, श्री. विनोद बोधनकर, श्री. सुरेश खानापूरकर, नरेंद्र चुग इ. मान्यवरांनी मार्गदर्शन केले.

महाविद्यालयाच्या रासेयो विभागाच्या वतीने दि. २५/०९/२०२१ रोजी जागतिक फार्मसिस्ट दिनाचे औचित्य साधून व सह्याद्री देवराई सामाजिक संस्था, मुंबई यांच्या निवेदनाच्या अनुषंगाने शासकीय औषधनिर्माणशास्त्र महाविद्यालय, अमरावती येथे कोवीड-१९ च्या प्रतिबंधात्मक उपाययोजनांचे पालन करून नियंत्रित विद्यार्थ्यांच्या उपस्थितीत दि. २५/०९/२०२१ रोजी कठोरा गाव परिसरात राष्ट्रीय सेवा योजना पथकाद्वारे **वृक्षारोपण** करण्यात आले व विद्यार्थ्यांना संगोपन करण्याची जबाबदारी विभागून देण्यात आली. वृक्ष लागवड मोहिमेअंतर्गत महाविद्यालयाच्या रासेयो विभागातर्फे वृक्ष लागवड व वृक्ष संवर्धन कार्यक्रम घेण्यात आला. कार्यक्रम यशस्वीतेसाठी रासेयो कार्यक्रम अधिकारी डॉ. कुंदन पाटील व महिला कार्यक्रम अधिकारी डॉ. नाझमा इनामदार यांनी सहकार्य केले. तसेच रासेयो स्वयंसेवकांना आपापल्या परिसरात प्रत्येकी ५ झाडे लावण्याबाबत सूचित करण्यात आले.

दि. २ ऑक्टोबर २०२१ रोजी महाविद्यालयात महात्मा गांधी जयंती व लालबहादूर शास्त्री जयंती साजरी करण्यात आली. महाविद्यालयाचे प्राचार्य डॉ. एस. एस. खडबडी यांचे हस्ते म. गांधींच्या प्रतिमेस पुष्पहार अर्पण करून अभिवादन करण्यात आले. त्यानंतर रासेयो स्वयंसेवक यांनी कोविड-१९

च्या सूचनांचे पालन करून महाविद्यालयीन परिसरात **'स्वच्छता अभियान'** राबविले.

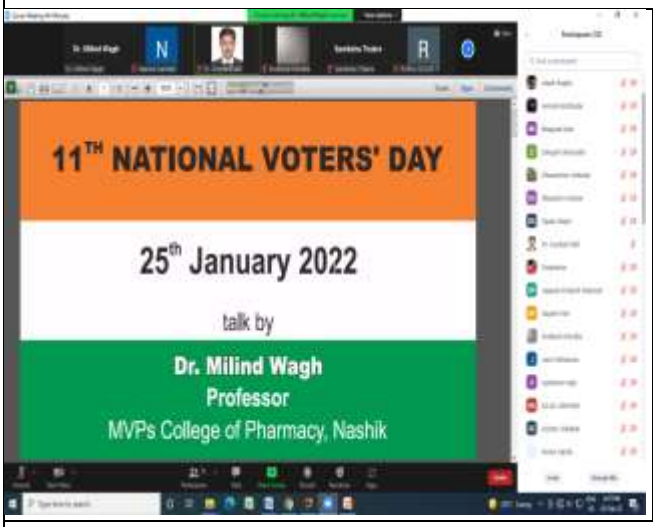
शासकीय औषधनिर्माणशास्त्र महाविद्यालय अमरावती येथील राष्ट्रीय सेवा योजना पथकाद्वारे दि. २२६/१०/२०२१ ते ०१/११/२०२१ या दरम्यान **"दक्षता जनजागृती सप्ताह"** साजरा करण्यात आला. यावर्षाकरिता केंद्रीय दक्षता आयोगाच्या निर्देशानुसार 'स्वातंत्र्य भारत ७५: सचोटीकडून आत्मनिर्भरतेकडे' हे ब्रीदवाक्य होते. याप्रसंगी डॉ. गणेश बंगाळे यांनी महाविद्यालयातील अधिकारी व कर्मचारी यांना महाविद्यालत भ्रष्ट्राचार विरोधी शपथ दिली.

दि. २६ नोव्हेंबर २०२१ रोजी महाविद्यालयात 'संविधान दिवस' साजरा करण्यात आला. याप्रसंगी भारतरत्न डॉ. बाबासाहेब आंबेडकर यांच्या प्रतिमेचे पूजन करून भारत देशाच्या संविधानाच्या प्रस्ताविकेचे सामूहिक वाचन महाविद्यालयाच्या प्रांगणात कोविड-१९ च्या सूचनांचे पालन करून करण्यात आले. याअंतर्गत डॉ. भूषण बाविस्कर यांनी सर्व शिक्षक व शिक्षकेतर कर्मचाऱ्यासमवेत व रासेयो कार्यक्रम अधिकारी डॉ. कुंदन पाटील यांनी विद्यार्थ्यांसमवेत संविधानाच्या प्रस्ताविकेचे सामूहिक वाचन केले व संविधानाचे महत्व विशद केले.

दि. ०९/१२/२०२१ रोजी जिल्हा सामान्य रुग्णालय, अमरावती व जिल्हा परिवहन कार्यालय यांच्या संयुक्त विद्यमाने आयोजित 'रस्ता सुरक्षा सप्ताह' च्या निमित्ताने 'एड्स जनजागृती बाईक रॅली' चे आयोजन करण्यात आले. सदर उपक्रमाकरिता महाविद्यालयाच्या रासेयो स्वयंसेवकांनी उत्साहाने सहभाग घेतला. बाईक रॅलीची सुरुवात जिल्हा सामान्य रुग्णालय, अमरावती येथून जिल्हाधिकारी पवनीत कौर यांनी हिरवा झेंडा दाखवून केली यावेळी डॉ. शामसुंदर निकम, डॉ. प्रमोद नरवणे, डॉ. पद्माकर सोमवंशी, डॉ. दिलीप रनमले, डॉ. राजेश बुरंगे, अजय साखरे, डॉ. कुंदन पाटील उपस्थित होते. रॅली इर्विन चौक, रेल्वे स्टेशन, राजापेठ, राजकमल चौक, कॉटन मार्केट, शेगाव नाका, पंचवटी त्यानंतर इर्विन चौक अशी काढण्यात आली. इर्विन चौक येथे रॅलीचा समारोप करण्यात आला. याप्रसंगी रासेयो कार्यक्रम अधिकारी डॉ. कुंदन पाटील देखील उपस्थित होते.

दि. ०९/०१/२०२२ रोजी संत गाडगेबाबा अमरावती विद्यापीठाच्या राष्ट्रीय सेवा योजना विभाग व JCI क्लब, अमरावती यांच्या संयकत विद्यमाने रक्तदान शिबिराचे आयोजन उजम्बावाडी, अंबापेठ, अमरावती येथे करण्यात आले होते. सदर रक्तदान शिबिरात महाविद्यालयाच्या ११ स्वयंसेवकांनी उत्सुफूर्तपणे रक्तदान केले. याप्रसंगी महाविद्यालयाचे रासेयो कार्यक्रम अधिकारी डॉ. कुंदन पाटील उपस्थित होते.

कोविड-१९ च्या प्रतिबंधात्मक उपाययोजनांमुळे स्थानिक प्रशासनाच्या मार्गदर्शक नियमावलीनुसार दि. १४/०१/२०२२ ते २८/०१/२०२२ या कालावधीत रासेयो पथकामार्फत महाविद्यालयात 'मराठी भाषा संवर्धन पंधरवडा' साजरा करण्यात आला. यात प्रामुख्याने दूरदृष्यं प्रणालीद्वारे विद्यार्थ्यांकरिता निबंधस्पर्धा, व्याख्यान, काव्यलेखन, काव्यवाचन आयोजित करण्यात आले. तसेच व्हाट्सअँप ग्रुपद्वारे मराठी वाचन कट्टा अंतर्गत मराठी साहित्य प्रसारित करण्यात आले. यात प्रा. डॉ. नाजमा इनामदार, मराठी भाषा अधिकारी व महिला कार्यक्रम अधिकारी आणि डॉ कुंदन पाटील, रासेयो कार्यक्रम अधिकारी यांनी समन्वय केले.



भारतीय स्वातंत्र्याची ७५ वर्ष पूर्ण होत असल्याने 'आझादी का अमृतमहोत्सव' या अंतर्गत दि. ०५/०२/२०२२ रोजी महाविद्यालयाच्या रासेयो विभागाच्या वतीने दि. २५/०१/२०२२ रोजी राष्ट्रीय मतदार दिनाचे औचित्य साधून ऑनलाईन वेबिनारचे आयोजन करण्यात आले. याप्रसंगी NDMVP औषधनिर्माणशास्त्र महाविद्यालयाचे प्राध्यापक डॉ. मिलिंद वाघ हे प्रमुख अतिथि म्हणून उपस्थित होते तर अध्यक्षस्थानी महाविद्यालयाचे प्राचार्य डॉ. एस. एस खडबडी होते. यावेळी प्रमुख अतिथी यांनी 'भारतीय लोकशाहीत मतदानाचे महत्व' यावर विद्यार्थ्यांना मार्गदर्शन केले. तसेच जास्तीत जास्त नागरिकांना मतदान करण्याकरिता प्रोत्साहित करा असे आवाहन केले. कार्यक्रमाचे संचालन रासेयो कार्यक्रम अधिकारी डॉ कुंदन पाटील यांनी केले तर कार्यक्रमाचे आभार प्रदर्शन प्रा. डॉ. नाजमा इनामदार, महिला कार्यक्रम अधिकारी यांनी केले.

राष्ट्रीय सेवा योजना विभाग संगाबाअवि यांचेद्वारे 'विद्यापीठस्तरीय एकदिवसीय व्यक्तिमत्व विकास कार्यशाळेंचे' आयोजन श्री. शिवाजी कला व वाणिज्य महाविद्यालय, अमरावती येथे दि. २६/०२/२०२२ रोजी करण्यात आले. या कार्यशाळेत महाविद्यालयाच्या ४ रासेयो स्वयंसेवकांनी सहभाग नोंदविला.

स्वातंत्र्याच्या अमृतमहोत्सवी वर्षानिमित्ताने राष्ट्रीय सेवा योजना विभाग संगाबाअवि यांचेद्वारे 'विद्यापीठस्तरीय जिल्हानिहाय आपत्ती व्यवस्थापन व्दिदिवसीय प्रशिक्षण कार्यशाळेंचे' आयोजन विद्यार्थी भवन, संगाबाअवि, अमरावती येथे दि. ०४/०३/२०२२ ते ०५/०३/२०२२ या कालावधीत करण्यात आले. या प्रशिक्षण कार्यशाळेत महाविद्यालयाच्या ४ रासेयो स्वयंसेवकांनी भाग घेतला.

दि. ०८/०३/२०२२ रोजी 'जागतिक महिला दिन' रासेयो पथकाद्वारे मोठ्या उत्साहात साजरा करण्यात आला. या कार्यक्रमात प्रमुख अतिथी म्हणून सौ. मंजुषा उताणे, PRO, PDMC, अमरावती व सहसंचालक शब्दप्रभू मासिक अमरावती उपस्थित होत्या. याप्रसंगी त्यांनी उपस्थितांना 'स्त्री-पुरुष समानता' या विषयावर मार्गदर्शन केले. या कार्यक्रमात महाविद्यालयातील विद्यार्थीनिनीदेखील आपले मनोगत व्यक्त केले. कार्यक्रमाच्या अध्यक्षस्थानी महाविद्यालयाचे प्राचार्य डॉ. एस. एस. खडबडी होते. कार्यक्रमाचे प्रास्ताविकपर भाषण महाविद्यालयाच्या प्राध्यापिका दीपाली घोरपडे यांनी केले. कार्यक्रमाचे सूत्रसंचालन कु. तेजल उमप हिने केले तर आभार प्रदर्शन कु. प्राजक्ता निधनकर हिने केले. या कार्यक्रमाला यशस्वीतेसाठी प्रा. डॉ. नाजमा इनामदार व प्राध्यापिका दीपाली घोरपडे यांनी विशेष प्रयत्न

केले.

जिल्हा सामान्य रुग्णालय, अमरावती व दुर्वांकुर हॉस्पिटल, अमरावती यांच्या संयुक्त विद्यमाने दि. २४/०३/२०२२ रोजी 'जागतिक क्षयरोग दिनानिमित्त' जनजागृतीपर रॅलीचे आयोजन करण्यात आले होते. सदर रॅलीत महाविद्यालयाच्या रासेयो स्वयंसेवकांनी उत्साहाने सहभाग घेतला. रॅलीची सुरुवात जिल्हा सामान्य रुग्णालय, अमरावती येथून जिल्हा शल्य चिकित्सक डॉ. प्रमोद नरवणे यांनी हिरवा झेंडा दाखवून केली. यावेळी डॉ. दिलीप रनमले, डॉ. राजेश बुरंगे, इ. उपस्थित होते. रॅली इर्विन चौक, राजकमल चौक, राजापेठ त्यानंतर इर्विन चौक अशी काढण्यात आली. इर्विन चौक येथे रॅलीचा समारोप करण्यात आला.

दि. ०५/०४/२०२२ रोजी महाविद्यालयात प्राध्यापक वृंद, कर्मचारी व उपस्थित विद्यार्थी वर्ग याना आगीपासून बचाव कसा करावा याबाबतचे प्रात्यक्षिक करून मार्गदर्शन करण्यात आले. महाविद्यालयात बऱ्याच प्रयोगशाळेत विद्यार्थी विविध ज्वलनशील रसायने वापरतात त्यामुळे आगीची शक्यता असते हि बाब लक्षात घेऊन विद्यार्थ्यांना प्रशिक्षण देण्यात आले. याकरिता मुझुमदार एंटरप्राइझेस, अमरावती यांचेकडील आग संरक्षक उपकरणे व प्रशिक्षित चमू उपलब्ध झाला.

Annual Social Gathering

महाविद्यालयाचे वार्षिक स्नेहसंमेलन (PHARMAFEST-२०२२) दि. २९ ते ३०/०४/२०२२ च्या

दरम्यान महाविद्यालयाच्या विद्यार्थी परिषदेमार्फत आयोजित करण्यात आले होते. स्नेहसंमेलनाचे उदघाटन महाविद्यालयाचे प्राचार्य डॉ. एस. एस. खडबडी यांचे हस्ते करण्यात आले तसेच याप्रसंगी मंचावर प्रा. नाझमा इनामदार, जिमखाना प्रभारी डॉ. कुंदन पाटील व विद्यार्थी परिषदेचे पदाधिकारी उपस्थित होते. स्नेहसंमेलनात विद्यार्थ्यांच्या सुप्त गुणांना वाव देण्याकरिता विविध क्रीडा स्पर्धा व सांस्कृतिक कार्यक्रमांचे आयोजन करण्यात आले होते त्यात विद्यार्थ्यांनी उत्स्फूर्त सहभाग नोंदवला. दि. ३०/०४/२०२२ रोजी या उत्साहपूर्ण कार्यक्रमाची सांगता करण्यात आली.

Inauguration & Prize Distribution

PHARMAFEST-2022

Singing

Character Day

Fashion Show

Dance

Sports	
	
Chess	Carrom
	
Volley Ball	Table Tennis
	
Tug of War	Badminton

Academic Achievements

Team of **Parth M. Takey** (Khushi V. Patil, Aditya C. Kohekar, Nived R. Sahu and Kishor R. Kaple) and team of **Kushkumar Thakare** (Manish Putharan) received Letter Of Intent fromResearch & Incubation Foundation Centre Sant Gadge Baba Amravati University Amravati.

Kushkumar Thakare secured Third rank in science and technology model presentation Competition in the Post-P.G. category in Integrated Approach in S&T for Sustainable Future organised at Sant Gadge Baba Amravati University, Amravati Catalyzed and Supported by Rajiv Gandhi Science and Technology Commission, Government of Maharashtra dated 14/03/2022 on the occasion of National Science Day-2022.

GCOPA Proud Moments

CAT Qualifier

Prathamesh D. Kawadkar

93.96%

GPAT - Qualifiers (2021)

		
Abhinetra J. Bhopale-208 AIR-192	**Samruddhi N. Chavhan-200 AIR-267**	**Vaishali A. Bhone-185 AIR-468**
		
Ekta V. Hole-184 AIR-497	**Janvi A. Raut-169 AIR-878**	**Om A. Supe-167 AIR-931**
		
Vishal G. Varhade-164 AIR-1022	**Sukanya B. Mozarikar-163 AIR-1063**	**Rushikesh R. Chapaitkar-158 AIR-1321**

		
Parth M. Takey-155 AIR-1449	**Aparna A. Bharde-155 AIR-1449**	**Nived R. Sahu-152 AIR-1615**
		
Tanvi D. Premchandani-151 AIR-1674	**Sneha R. Wankhade-142 AIR-2341**	**Sagar G. Akhade-140 AIR-2506**
		
Pallavi N. Rekhate-139 AIR-2613	**Pooja B. Wagh-139 AKIR-2613**	**Kalyani V. Haramkar-138 AIR-2722**

		
Seemantini P. Kale-120 AIR-4954	**Prachi S. Dofe-107 AIR-7653**	**Janvi G. Nishanrao-105 AIR-8086**
		
Rupesh R. Doifode-91 AIR-12707	**Suhas G. Atram-91 AIR-12707**	**DipaliC.Pawar-51 AIR-34804**

GATE 2022 Qualifiers

		
Aparna A. Bharde **34 (AIR-4788)**	**Parth M. Takey** **32 (AIR-6182)**	**RushikeshR.Chapaitkar** **31.67 (AIR-6435)**

TISS NET Qualifiers

	
Anuj R. Kalone-45	**Sagar G. Akhade– 44**

ATMA 2022 Qualifiers

	
NiketJadhao 91.69%	Sagar Akhade 80.06%
 Pratik Junekar 54.79%	 Rupesh Doifode 42.58%

NIPER - Qualifiers (2021)

Sr. No.	Name	NIPER Rank
1	Abhinetra Jagdish Bhopale.	81
2	Vaishali Anandrao Bhone	268
3	Ekta Vinod Hole	490
4	Samruddhi Narendra Chavhan	601
5	Nived Rajesh Sahu	620
6	Om Sunil Supe	759
7	Janvi Raut	783
8	Vishal Gajanan Varhade	824
9	Rushikesh R. Chapaitkar	944
10	Aparna Anil Bharde	1126
11	Tanvi Dinesh Premchandani	1320
12	Kalyani VinodraoHaramkar	1385
13	SampadaKeshaoAbgad.	1545
14	Pallavi Nandkishor Rekhate	1571
15	Pooja Wagh.	1711
16	Sagar Gajanan Akhade	1765
17	Seemantini Prashant Kale	1880
18	Sneha Ramesh Wankhade	2080
19.	Parth Madhav Takey	2152
20	Suhas Gajanan Atram	2975
21	Dipali Chatur Pawar	3030
22	Rupesh Rameshwar Doifode	3032
23	Janvi Ganeshrao Nishanrao.	3115

B.Pharm Toppers

B.Pharm I Year (SEM 1)2020-21		
Rank 1st	Rank 2nd	Rank 3rd
		
Sakshi Shah Marks- 646	Vaishnavi Samrit Marks -646	Nidhi Pohare Marks - 643
Rank 1st	Rank 2nd	Rank 3rd
		
Mrunal Hiwe Marks 643	Vaishnavi Nafade Marks- 642	Pooja kolhe Marks- 642

B.Pharm II Year (SEM 3)	
Rank 1st	Rank 1st
	
Pratik Kale 545	Gajanan Naikwad 545
Rank 2nd	Rank 3rd
	
Ruchali Tayade 536	Payal Mohite 538

B.Pharm IIIYear (Sem V)		
Rank 1st	Rank 2nd	Rank 3rd
		
Jayant Mukesh Sahu 565	Sachin Vitthal Tavare 558	Saurabh Kodape 556
B.Pharm IV Year (Sem VII)		
Rank 1st	Rank 2nd	Rank 3rd
		
Om Supe 455	Prathmesh Kawadkar 453	Pranit Gade 450

Pharm.D Toppers

	Pharm.D II yr	
Rank 1st	Rank 2nd	Rank 3rd
		
Gargi Prashant Dagwar 79.4 %	Tushar Gajanan Belokar 76.4 %	75.6 %
	Pharm.D III Year	
Rank 1st	Rank 2nd	Rank 3rd
		
Dhanashri Nandedkar 80.63%	Kaivalya Rudre 80%	Om Khandarkar 78.34%

	Pharm.D IV Year	
Rank 1st	Rank 2nd	Rank 3rd
		
Praduman Pawar 80.5%	Gauri Uplenchwar 79.9%	Pragati Rathi 78.8%
	Pharm.D V Year	
Rank 1st	Rank 2nd	Rank 3rd
		
Prajkta Nidhankar 89.86%	Shruti Anant Iyenger 89.80%	Keshini Dhande 87.33%

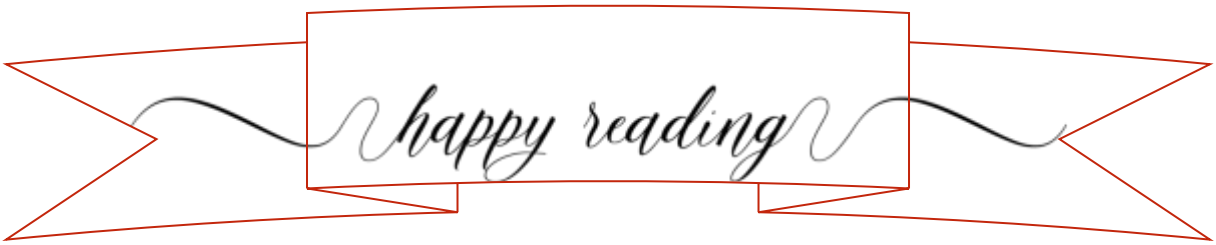
M Pharm Toppers

M.pharm I Yr (SemI) Pharmacognosy and Phytochemistry		
Rank 1st	Rank 2nd	Rank 3rd
		
Nisha Harish Varandani Marks -556	Priya Baliram Chaudhari Marks-553	Aayushi Devidas Sahu Marks -552
M.Pharm II (SEM III) (Pharmacognosy and Phytochemistry)		
Rank 1st	Rank 2nd	Rank 3rd
		
Shretali Wasudeo Sawarkar Marks 274	Tejaswini Anil Kothawale Marks- 263	Nilesh Dnyandeo Khade Marks -260
M.pharm I (Sem I) (Quality Assurance)		
Rank 1st	Rank 2nd	Rank 3rd
		
Rohit Vyanjane Marks-583	Prathamesh Solao Marks -577	Sapna Khonde Marks-572

GCOPA Medicinal Plant Nursery

Free Distribution of Medicinal Plants to Households

Beheda (बेहेडा) ,Arjuna (अर्जुन),Giloy (गुळवेल(,Aloe(कोरफड) , Nirgudi(निर्गुडी) , Adulasa(अडुळसा) , Shatavari(शतावरी) , Brahmi(ब्राह्मी) , Punarnava(पुनर्नवा) , , Moringa(शेवगा) , , Patta ajowan(पान ओवा) , Kadipatta(कडीपत्ता) , Tulsi(तुलसी) , Mandukparni(मंडूकपर्णी) , Hadjod(हाडजोड) ,Lemongrass(गवती चहा) , Hibiscus (जास्वंद) , henna (मेहंदी(, Lajwanti (लाजाळू)Amala(आमला) Aswagandha(अश्वगंधा) , Adrak(अद्रक) , Neem (नीम(, Karanj) करंज(,


happy reading