NATIONAL CENTRE FOR RURAL DEVELOPMENT

NCRD

REFLECTION 2020

LOOKING BACK SO THAT THE VIEW AHEAD IS BRIGHTER

NCRD's

Sterling

INSTITUTE OF PHARMACY

Approved by A.I.C.T.E., New Delhi, Recognized by University of Mumbai & Government of Maharashtra

NCRD'S STERLING INSTITUTE OF PHARMACY

(Approved by A.I.C.T.E. New Delhi, Pharmacy Council of India,
Government of Maharashtra and Affiliated to the University of Mumbai)

VISION

To be a recognised institute for quality education, training and research to serve the global society.

MISSION

To produce competent pharmacy graduates for global citizenship, employment and lifelong learning through our unique work based and domain based education.

The core values of the institute are humanistic approach, value based and professional centric system.

PROGRAM EDUCATIONAL OBJECTIVES

Students graduating from NCRD's Sterling Institute of Pharmacy shall be able to:

- Establish themselves as competent pharmacy professionals.
- Be an earnest caretaker of the community.
- Adapt to dynamics in the field through sustained learning.

OUR INSPIRATION

Hon. Shri Dilip Walse Patil. (B.A., LLM)

Founder Chairman

National Center for Rural Development

Minister for Labour and Excise, Government of Maharashtra.

TREASURER's MESSAGE

The National Centre for Rural Development, NCRD, is a registered Public Charitable Trust. With firm belief in extending quality education to the masses, NCRD strives to empower students to harness all the potential that they possess, thereby creating effective, active and responsible citizens.

It is indeed my privilege to write this message for the first edition of college e-magazine "Reflection" which is being published soon. I am sure it will be a source of inspiration for budding pharmacist and writer among students. It will transform their creativity to new dimensions of mature expressions.

On this occasion, I extend my greetings and best wishes to NCRD's Sterling Institute of Pharmacy for publication of Magazine "Reflection".

Shri. Avinash Shinde
Treasurer NCRD

CHIEF ADMINISTRATIVE OFFICER'S MESSAGE

It gives me immense joy to note that, NCRD's Sterling Institute of Pharmacy Nerul Navi mumbai is coming out with the First edition of the e-magazine "Reflection"

Education remains incomplete if it fails to develop the capacity for independent thought and the inspiration of creation. Learning always craves for creation in the minds of the students and zeal of discovering new horizons not yet discovered. It is necessary to inspire the hearts of the student to create beauty in the different domains of life and nature. This can be achieved through the efforts by creating new pieces of literacy, scientific and other types of writing in their college magazine. I am sure that the College Magazine will provide a platform to the students to sharpen their writing talent and will strengthen the academic activities of the College.

On this occasion, I convey my good wishes to the Principal, students, faculty and supporting staff of the college in their endeavors.

Mr. Amarjit Kharade
CAO, NCRD

FROM THE PRINCIPAL'S DESK...

It is very delighted event for me to present First edition of e-magazine "Reflection" of NCRD's Sterling Institute of Pharmacy. The magazine, in its electronic format invites a wider readership at the Institute website. This e-magazine is going to showcase the strength of this Institute, potential of teachers and students with their literary skills and innovative ideas.

Education is not an act of acquiring knowledge but learning a skill to lead life and forming one's personality. The college magazine exemplifies the voyage transverse and exhibits the literary skills of students. It offers vast opportunity to young writers to express their views on various topics and creative talents. This magazine is being released in exceptional circumstances. We had decided to compile the magazine during the months of June - July 2020, after completion of the activities of the academic year 2019-20. With a lockdown being announced in March 2020, everything came to a standstill. All the teachers and the students had to adopt the online teaching-learning system. Even in such difficult circumstances, the editorial team of Reflection led by Dr. Archana Gorle and ably supported by student editorial Ms. Pranjali Belote and Ms Kalpita Gawand, other students and faculty members worked dedicatedly to compile the magazine and they deserve a big applause.

How true is the fact that we evolve out of our deficiencies and imperfections towards more accuracy and precision. I strongly believe that our First issue of Magazine will further motivate and propel us towards a prosperous future.

I take this opportunity to thank our Hon'ble Chairman Shri. Dilip Walse Patil, all Trustees & CAO Mr. Amarjit Kharade for their valuable guidance and encouragement in this and all our endeavors.

I hope that first edition of e-magazine "Reflection" will be enjoyed by all.

Dr Rupesh Pingale
M.Pharm, Ph.D
Principal,
NCRD's Sterling Institute of Pharmacy

EDITORIAL FROM FACULTY DESK ...

On behalf of our NCRD's Sterling Institute of Pharmacy it's a great pleasure to present "Reflection" our first e-magazine

I take this opportunity to thank our Principal Dr. Rupesh Pingale for encouraging & supporting us to publish this magazine.

I am sure the contents of E-Reflection will provide a platform to the students to sharpen their writing talent and will strengthen the academic activities of the College.

"Education is not only learning of facts, but it is a training of mind to think creatively" with that mind I like to express my appreciation to all authors and students for their creativity and insightful thinking. It is their generous contribution of time and efforts that made this issue possible.

I congratulate my Editorial Team for their wholehearted and collective efforts for compiling and successfully publishing the e-magazine. At the same time on behalf of the editorial team I take this opportunity to thank our Founder Hon'ble Chairman Shri. Dilip Walse Patil, all Trustees, & CAO Mr. Amarjit Kharade for their valuable motivation and belief in this and all our endeavors.

Comments, suggestions for the magazine are most welcome.

Dr. Archana Gorle
M.Pharm, Ph.D
Assistant professor
Pharmacognosy

STUDENT BOARD EDITORIAL ...

Ms. Pranjali Belote

Ms. Kalpita Gawand

It is immense pleasure for launching our annual college magazine after laugh, cries, hugs and lot of other hard work.

It was overwhelming for us with numerous response both by the student and staff member with their drafts.

We are sure that the magazine will not only boost the morale amongst the younger generation of student's creativity but will also reflect the high cultural and aesthetic values which are universal and genuinely radiate about.

Our sincere wishes and blessings to the staff and our college. We hope you enjoy reading the magazine as much as we enjoyed making it.

TEACHER'S AWARDS & ACHIEVEMENT

AWARD OF Ph.D DEGREE

Mrs. Archana Gorle Ingle
Assistant Professor

Mrs. Archana Gorle Ingle, NCRD's Sterling Institute of Pharmacy, Nerul, Navi Mumbai has been awarded with Doctor of Philosophy in January 2019 from Sarswathi Vidhya Bhavan's College of pharmacy Dombivli, University of Mumbai , her research entitled "Studies on development and standardization of polyherbal formulation utilized for treatment of hyperglycemia"

She has carried out her research under the guidance of Dr Chhaya Gadgoli , Professor, Sarswathi Vidhyabhavan's COP Dombivali, University of Mumbai She has 13 years of teaching experience. She has 1 published patent and 7 research articles in National and International journals. She has received one research grant from DST (SERB) two minor research projects from University of Mumbai.

Mrs. Gouri Palsokar
Assistant Professor

Mrs. Gouri Palsokar, NCRD's Sterling Institute of Pharmacy, Nerul, Navi Mumbai has been awarded with Doctor of Philosophy in November 2019 from Department of Pharmaceutical Sciences, Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur for her research entitled "Studies on Relevance of Post Graduate Courses in Pharmaceutical Sciences With Regard To The Responsibilities To Be Discharged In Employment". She has carried out her research under the guidance of Dr M. R. Tajne, Professor, Department of Pharmaceutical Sciences, Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur. She has 15 years of teaching experience and almost one year of industry experience. She has published 6 research articles in National and International journals of repute. She has received two minor research projects from University of Mumbai. She is the life member of APTI.

Mrs. Sonali S. Askarkar
Assistant Professor

Mrs. Sonali S. Askarkar, NCRD's Sterling Institute of Pharmacy, Nerul, Navi Mumbai has been awarded the degree of Doctor of Philosophy (Ph.D.) in July 2020 in the Faculty of Science and Technology by Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur for her research work entitled "Formulation Development and Evaluation of Ophthalmic Dosage form of some selected Drugs" under the privileged guidance of Dr. Krishna R. Gupta, Professor, Department of pharmaceutical chemistry, Smt.Kishoritai Bhoyar College of Pharmacy, Kamptee, Nagpur. She has 10 years of teaching and 2 years of industrial experience. She has 2 published patents and 11 research articles published in international and national journal of repute. She has attended and presented her research work in several national and international seminars and conferences. She has also fetched two minor research grants from Mumbai University.

SCIENTIFIC ZONE
IMPACT OF COVID-19 ON OUR ENVIRONMENT

INTRODUCTION

The most famous phrase has been changed now. "Take the name of the devil, & devil is spread all over the world now". Yes, I am talking about coronavirus Covid-19. The new coronavirus (SARS-CoV2) has generated an unprecedented impact in most countries of the world. The virus has affected almost every country on the planet, spread to more than 5.7 million people, and caused around 357,000 deaths.

Currently, most countries have tried to fight the spread of the virus, and hence it is clear that the priority revolves around people's health. For this reason, the indirect impact of the virus on the environment has been little analysed.

IMPACT OF COVID-19 ON OUR ENVIRONMENT

➢ The first studies estimated a positive indirect impact on the environment. On the one hand, Greenhouse Gas(GHG) emission could drop to proportions never before seen since World War-II.

➢ In other part of the world, such as Europe, air pollution has dramatically reduced since governments ordered citizens to stay at home to avoid the spread of the coronavirus.Also, there is significant decreased in NO2 concentrations in countries like Rome, Madrid, Paris.

➢ Beaches are one of the most important natural capital assets found in coastal areas. The social distancing measures adopted by most governments have caused many beaches around the world to get cleaned up. This as a result of the reduction in waste generated by tourists who visit the beaches. For example, beaches like those of Acapulco (Mexico), and Barcelona (Spain).

➢ Environmental noise is defined as an unwanted sound that could be generated by anthropogenic activities. Now, Noise levels have fallen significantly in most countries. The decrease in the use of private and public transportation, as well as commercial activities, has caused a reduction in noise.

➢ In other hand, the quarantine policies, established in most countries, have led consumers to increase their demand for online shopping for home delivery. Consequently, organic waste generated by households has increased.

➢ Medical waste is also on the rise. The countries like USA, there has been an increase in garbage from personal protective equipment such as masks and gloves. On the other hand, the safe management of domestic waste could be critical during the covid-19 emergency. Medical waste such as contaminated masks, gloves, used or expired medications, & other items can be easily be mixed with domestic waste.

Conclusion: Finally, it is concluded that covid-19 will produce both positive & negative effects on the environment, but the latter will be greater. Furthermore, the virus crisis brings other environmental problems that may last longer and maybe more challenging to manage if countries neglect the impact of the epidemic on the environment.

-ROHAN GHARGE (T.Y.)

SUCCESS STORY OF KERALA IN COVID-19

INTRODUCTION

Kerala, a state in the southern part of India, has recently been in the news for its successful handling of the coronavirus disease 2019 pandemic. The successes of the State's strategies are attributed to a multitude of factors.

METHODOLOGY:

A firm rooting on evidence-based public health, the high rate of literacy among its population, the investment in universal health care, the unique sociocultural and political fabric, and the strict but humane approach of the bureaucrats and civilians alike are some of the factors that played a key role. It is a reflection of the consistent efforts of the State in diverting significant resources every year toward building public health infrastructure, trusting village-level bodies with autonomy and funds, and promoting shared values that encourage social cooperation. The multidisciplinary teams provided counselling and psychosocial support for people in isolation and quarantine. The focus was also on tackling the stigma surrounding the virus. There are also lessons to be learned from how Kerala treated its migrant population of workers, rechristened as "guest workers." Thus, a multipronged approach, based on a combination of science and social–humanitarian values, was successful in meeting this challenge.

The first case in India was detected in Kerala on January 30, 2020, in a student returning from Wuhan, China. Taking inspiration from its own success story of containing the Nipah virus outbreak in 2018, Kerala was quick to respond to this challenge by scaling up services and firmly rooting its policies on "testing and tracing" as per the WHO recommendations. This was in stark contrast to the strategies based on herd immunity, which reflected in the policies of many developed countries. Kerala's immediate plan involved tackling of emergencies, contact tracing, case isolation, quality care, district monitoring, risk communication, and community engagement. The fundamentals were solid and the State relied on testing aggressively with excellent contact tracing strategies.

Various projects such as District Mental Health Program, "DISHA," a 24 × 7 tele-health helpline under the Department of Health and Family Welfare, were brought together to strategize and implement mental health initiatives. The State machinery also announced loan assistance, welfare pensions, free food grains, subsidized meals, tax relief, and arrear clearance in the face of this epidemic much before the rest of the country. When some people around the world tweeted about miraculous cures and medicines, the State leadership told the public that there were no miraculous cures yet and also urged them to "let science do its job." In the heart of all, this was a society rooted in humanistic values and an approach that is community oriented to deliver and implement health services.

On May 17, when COVID-19 death toll was 312,000 in the world and 2872 in India it was only three in Kerala.The internet network capacity was increased by 30%–40% to meet the surge in demand. Leading newspapers published scientific articles from leaders in the field. There were also collaborative.

-JYOTI SUTAR (T.Y.)

DIGITAL DETOX

Technology is incredible; it has become an inseparable part of everyone's life. Technology has given us electronic devices, social media sites, online transactions like e-payment, online shopping, internet banking etc. Technology has been a boon to us especially in the current COVID-19 crisis. It has enabled us to work from home, attend online lectures, seminars & functions, and connect with people across the world using e-devices.

However, during this entire scenario, one can observe that the amount of time an individual spends on e-devices have increased tremendously. The time which was earlier allotted to daily activities have been largely replaced by the time spent on e-devices like mobiles, computers, laptops; various social media sites. The youth spends several hours of day on social media rather than doing physical activities. Though we might not understand its adverse effects now, it will surely affect the physical and mental wellbeing of a person on the longer run.

Hence, due to all these reasons, a digital detox has become very essential considering the daily routine of the people in this crisis. DIGITAL DETOX is the time spent away from digital and e-devices. It is regarded as an opportunity to reduce stress and improve mental health of a person.

Need of digital detox:

Several studies have discovered some very real life dangers associated with the excessive use of technology. It affects mental health of a person. On a longer run, the person may even face problems like anxiety, insomnia headache, neck and shoulder pain. It can even lead to depression. Eye problems like dry eyes, blurred vision, are often seen. This can lead to Computer vision syndrome in adults. Because of social networking sites, people tend to compare themselves with others leading to negative impact on their self-esteem. Video games, online gaming and social media sites are seen to have a drug like effect on the brain of humans i.e. they lead to addiction. More digital media leads to less exercise and less time outdoors affecting physical health.

How to do digital detox at home:

One must stay away from all type of e-devices after the completion of daily schedule. This can be done by putting your mobile phones on silent or vibration mode, turning the notifications off. Limiting the usage of e-devices during meals and sleep is advisable. Remove some time of the day for exercise or meditation or yoga. This will help rejuvenate our

mind thus relieving mental stress. Spend some quality time with family and friends, communicate with them. Learn something new, polish your skills and work on the things you are weak at. Practise your hobby, listen to music you love, dance on songs. Read books rather than watching some shows on television. Remove at least sometime of the day for yourself. Analyse yourself if you are getting angry or irritated on small things or are becoming impulsive as these are the signs that your mental health is getting affected. If such signs are seen, relax for some time and start doing meditation daily and substitute these with positive feelings.

We must learn to form a work-life balance and use the technology for our enhancement and betterment, not let it take control of our life and affect it. We should also understand that we work to have good and contended life but excessive use of technology or anything will only decrease the quality of life. Decide a goal in your life and start working for its fulfilment. With the help of technology and our inner drive we can become a successful person.

-AKANKSHA LAD (T.Y.)

PATHOPHYSIOLOGY OF SARS-COV-2

INTRODUCTION

Coronavirus disease 19 (COVID-19) is a major heath concern and devasting. Especially for elderly. COVID 19 is a disease caused by SARS COV 19 virus. Although much is known about mortality and much less is known about of pathobiology. Detail of cellular response is not known, a probable course of event can be postulated based on past studies of SARS COV 19. A cellular biology perspective is useful for research question and explaining the clinical course by focussing on area of respiratory tract that are involved.

In December 2019, a novel corona virus named as SARS COV 19 caused a series of acute atypical respiratory disease in WUHAN, CHINA. The disease caused by this virus is COV 19. The virus is transmittable between human and cause pandemic worldwide . Hence pathophysiology is important to study.

Pathophysiology

Before pathogenesis the structure of SARS COV 2 is important, the virus consist envelope which contain positive strand RNA with nucleocapsid (N). In nucleoside the genomic structure is organised in ssRNA (+ sense, 30kb length) is the largest known RNA virus with 5'-cap and 3'-poly-A-tail .The structure is enclosed by membrane (M) , above membrane S1 and S2 spike glycoprotein are present which contain ACE(angiotensin converting enzyme) 2 receptor and binding domain.

1. SARS COV 2 virus enter into cytoplasmic membrane by fusion or by endocytosis by interaction of S1 spike glycoprotein with (ACE 2) receptor binding in membrane receptor
2. Spike protein on the virion bind to ACE 2 , a cell surface protein , TMPRSS2 , an enzyme , help virion to enter.
3. The virion release its viral ssRNA
4. Some RNA is translated into protein by cells machinery and form viral polyprotein
5. These viral polyprotein undergo proteolysis and form non structural protein (nps) 3,4,6
6. Some of these form replication transcription complex (RTC) to make more RNA
7. This complex undergo transcription and form messenger RNA such as genomic RNA and sub genomic RNA (ssRNA) This ssRNA transcription contain nucleocapsid (N) spike S1 AND S2 , membrane (M) , envelope (N)
8. Translation of viral structural protein such as SME protein at ER. SME protein combine with nucleocapsid contain VOV genome

9. Assembly of mature virion takes place in golgi complex

10. Release of new SARS COV 2 by exocytosis

11. This virus now enter into another host and cause symptoms like pneumonia , asthma, difficulty in breathing , sneezing, and coughing

Conclusion

The exact pathophysiology of SARS COV 2 is somewhat difficult. ACE 2 receptor place an important in Pathogenesis . Providing antibody against ACE 2 enzyme, may inhibit the entry of SARS COV 2 virus. Antibody against SARS COV 2 spike may offer some protection against SARS COV 2

Reference

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-SABREEN KHAN &
VANSHIKA BHOIR (T.Y.)

WHAT ARE CANCER VACCINES

ABSTRACT

Cancer vaccines are designed to promote tumor specific immune response, particularly cytotoxic CD8 positive T cells that are specific to tumor antigens. They have been extensively tested in animal models, and in humans. Clinical studies conducted with such candidate vaccines contributed to establish the feasibility of Immunizing cancer patients against their own tumors. Vaccines , also called vaccination, they are medication that help the body fight with disease. They can train the immune system to recognize and destroy harmful substances.

There are 2 types of cancer vaccines :

- Prevention vaccines
- Treatment vaccines

Cancer prevention vaccines

A person has to get the vaccine before the virus infect him or her. Otherwise the vaccine will not work. Like vaccines for the chicken pox or flu, they protect the body from viruses that can cause disease.

There are 2 types of cancer prevention vaccines approved by the U. S. Food and drug Administration (FDA):

Hepatitis B vaccine:

The vaccine to prevent hepatitis B is a series of two to three shots, given over 1-4 months. It is recommended for all infants, for individuals under age 18 who have not been vaccinated, or anyone who has not been infected or already immune and is at high risk for infection. Long lasting infection with HBV can cause liver cancer.

HPV vaccine:

This vaccine prevents against 9 strains of HPV (human papillomavirus) that are linked to cancer. It is given in 2 or 3 doses, depending on the age you are when it is started. The HPV vaccine is recommended for all individuals ages 12-26. It is ideally given before an individual becomoes sexually active is likely to exposed to HPV. The FDA has approved HPV vaccine to prevent cervical, vaginal and vulvar cancer

Cancer treatment vaccines They are also called as therapeutic vaccines, are a type of immunotherapy. This vaccine can help the immune system learn to recognize and react to antigen and destroy cancer cells. The vaccines prevent the cancer from coming back and stops tumor from growing or spreading

How cancer treatment vaccines works

Cancer treatment vaccines boost immune system's ability to recognize and destroy Antigen. Often, Cancer cells have certain molecules of cancer specific antigen on their surface that healthy cells do not have. When these molecules are given to a person, the molecules act as antigen and stimulate immune system. This leaves the immune system with a memory that helps it respond to those antigens in the future.

How cancer treatment vaccines are made

They can be made from your own tumor cells. This means they are custom-made so that they cause an immune response against features that are unique to your cancer.

They may be made from tumor-associated antigens that are found on cancer cells of many people with a specific type of cancer. Such a vaccine can cause an immune response in any patient whose cancer produces that antigen. This type of vaccine is still experimental.

They may be made from your own dendritic cells, which are a type of immune cell. Dendritic cell vaccines stimulate your immune system to respond to an antigen on tumor cells. One dendritic cell vaccine has been approved, sipuleucle - T, which is used to treat some men with advanced prostate cancer.

Side effects of cancer treatment vaccines

Flu like symptoms Include

➢ fever, Chills, Weakness, Dizziness, Nausea and vomiting, Muscle or joint aches, Fatigue, Headache, Trouble breathing, Low or high blood pressure, Several allergic reactions

Vaccines under clinical trials :

Clinical trials are important for learning more about cancer vaccines. a Phase III trial of follicular lymphoma (a type of non-Hodgkin's lymphoma), investigators reported that the BiovaxID (on average) prolonged remission by 44.2 months, versus 30.6 months for the control.[7]

On April 14, 2009, Dendreon Corporation announced that their Phase III clinical trial of sipuleucel-T, a cancer vaccine designed to treat prostate cancer, had demonstrated an increase in survival. It received U.S. Food and Drug Administration (FDA) approval for use in the treatment of advanced prostate cancer patients on April 29, 2010.[8][9]

On April 8, 2008, New York–based company antigens announced that it had received approval for the first therapeutic cancer vaccine in Russia. It is the first approval by a regulatory body of a cancer immunotherapy. The treatment, Oncophage, increased recurrence-free survival by a little more than a year according to the results of a phase III clinical trial. The approval is for a subset of kidney cancer patients who are at intermediate risk for disease recurrence. It awaits approval in the US and EU.[10] but will need a new trial for FDA approval.Interim results from a phase III trial of talimogene laherparepvec in melanoma showed a significant tumour response compared to administration of GM-CSF alone.[6]

Conclusion:

Could make a big impact on our approach to cancer

Reference:

www.cancer.net, www.cancerresearch.org, www.oncolink.org , cancer vaccine -Wikipedia

-SHRADDHA BALSARAF (T.Y.)

HOW CORONAVIRUS SPARKED A WAVE OF INNOVATION IN INDIA?

Entrepreneurs and innovators across India have responded quickly to the challenge posed by the COVID-19 pandemic. A host of new innovations, some emerging from start-ups that have been incubated by universities, have appeared in recent weeks.

There are a number of reasons for the quick response, including the urgency of the humanitarian situation and a proactive approach to crowdsourcing ideas from the government

Around the world, social distancing and contact tracing have been the buzzwords of the response to COVID-19. A particular problem as lockdowns begin to ease will be how to stop the virus spreading in public spaces such as airports or bus stations. Asimov Robotics, a start-up based in Kerala, has deployed robots at entrances to office buildings and other public places to dispense hand sanitiser and deliver public health messages about the virus.

Robots developed by Asimov Robotics are also being deployed in hospital isolation wards to carry food and medicines, which eases the pressure on medical staff. In early April, the Indian government launched a COVID-19 tracking app called Aarogya Setu which uses GPS and Bluetooth to inform people when they are at risk of exposure to COVID-19.

Start-ups including KlinicApp and Practo, are providing COVID-19 tests at home and online consultation with doctors through their platform. Crowd sourced platforms have also proved to be an important channel for bringing together the wisdom from universities, industry and government. The national government launched the COVID-19 solution challenge on March 16 that invites innovators to offer ideas and solutions for tackling the pandemic. Industry associations such as the Federation of Indian Chambers of Commerce and Industry collaborated in an online hackathon to develop non-medical solutions for COVID-19.Similar crowdsourced platforms from start-up incubators such as BreakCorona received 1,300 ideas and 180 product solutions within two days of launch. In another effort, volunteers have set up an online crowdsourced portal called Coronasafe-Network, a real-time open-source public platform containing details on COVID-19 precautions, tools and responses which serves as a useful starter-kit for innovators.

India needs to sustain and enhance this entrepreneurial mindset to create the next wave of innovation to continue the fight against COVID-19 and for the socio-economic recovery once lock-down restrictions begin to ease. Hope for the betterment!

-PRANJAL SINGH(TY)

TULSI- "THE ELIXIR OF LIFE"

ABSTRACT

Ocimum sanctum is an annual herb belonging to mint family. Ocimum sanctum is believed to purify expectorant and called as "Wonder Herb". The roots, leaves and seeds of tulsi possess several medicinal properties. It has variety of pharmacological activities like antibacterial, antiviral, antifungal, anthelmintic, antihypertensive , CNS depressant, etc. Its leaves are helpful in sharpening memory and in curing fever and cold. It also contains fixed oil which is also used for many of the preparation.

Introduction :

Tulsi has been used since very long time. It has got the great medicinal value. The studies has found that it is effective in diabetes by reducing the glucose level and it also helps in reduction of total cholesterol levels. The Rama Tulsi is very effective for the severe acute respiratory syndrome. For over the centuries Tulsi has been known for its remarkable healing properties. Modern scientific research offers impressive evidence that Tulsi reduces stress, enhances stamina, relives inflammation, eliminates toxins ,improves digestion and provides a rich supply of antioxidants and other nutrients. Tulsi improves the overall body defense mechanism including the ability to fight viral disease .The oil extracted from karpoora Tulsi is mostly used in the herbal toiletry. It is also used against insects and bacteria. The anti-flu property of Tulsi has been discovered by the medical experts recently across the world. Even it found that it has effect on Covid -19 not directly but indirectly it can be used as a medication.

Uses of Tulsi:

- Used for bronchial asthma, expectorant and bronchodilator effects.
- Used against respiratory ailments including bronchitis and tuberculosis.
- Used for rhinitis (inflammation of nasal mucus membrane)
- Can serve as a cure and prophylactic as well as for the severe acute respiratory syndrome (SARS). The roots of the Tulsi plant should be crushed and boiled with turmeric powder for a few minutes, after which it should be filtered. Consuming two spoonful of this potion twice daily will cure SARS and prevent contracting of the disease.

- Tulsi tea with honey is a good expectorant especially in cases where fever is involved.
- The juice of the leaves is given in catarrh and bronchitis in children
- Chewing the leaves relives cold and flu. A decoction of the leaves, cloves and common salt also gives immediate relief from influenza.
- Tulsi is also used in case of hyperglycemia as it works by lowering the blood glucose levels.
- Tulsi also know as holy basil , is an herb native to India. It is also used as a cleaning and healing agent of the mind, body and spirit. So tulsi is commonly used for the medicinal purpose and as a natural remedy for common ailments.

Precaution:

Although tulsi is a safe herb, consult a doctor before consuming tusli in any form if you are nursing or pregnant. Also consult a physician if you are taking any prescription medications.

Conclusion:

Tulsi is a popular home remedy for many ailments such as wounds, bronchitis, liver disease, catarrh fever, gastric disorder etc. It also has aromatic, stomachic, carminative , demulcent ,diuretic, expectorant properties. Tulsi is also known as "The wonder herb" since it can used in various way. Different parts of plant are used in Ayurveda and Siddha systems of medicine for prevention and cure of many illnesses.

-SAMIDHA SHELAR (TY)

HOW DOES PARKINSON'S DISEASE INFLUENCE DEPRESSION?

Parkinson's disease is a condition affecting nerve cells in the brain, which then impacts the way a person moves. But how is Parkinson's disease linked to depression? A person diagnosed with 'Parkinsons disease may have trouble moving. Parts of their body may start shaking, their body and muscles may feel stiff, and they may move more slowly than usual. In addition to the physical symptoms that characterize the condition, people diagnosed with Parkinson's disease may also experience depression.

How are Parkinson's and depression related?

It is normal for a person to feel sad when they have been diagnosed with a serious condition such as Parkinson's disease. But feeling this way does not necessarily mean a person is depressed. Depression is a mood disorder that can affect a person's ability to carry out daily activities and about 50 percent of people diagnosed with Parkinson's disease experience depression. This is thought to be distinct from feeling sad about their diagnosis. Depression is considered to be a symptom of Parkinson's disease in the same way as involuntary shaking. Both are caused by changes in the brain chemistry. Research by the National Parkinson Foundation compared the impact of mood, depression, and anxiety with that of the physical symptoms of Parkinson's disease. It found psychological symptoms of the condition might have more of a negative impact on a person's overall health than physical ones.

Brain chemistry in Parkinson's disease

Parkinson's disease is caused by a lack of dopamine production in the pars compacta region of the brain. Dopamine helps to regulate the way a person moves. Reduced dopamine leads to the physical symptoms of Parkinson's disease. Reduced levels of serotonin can affect a person's mood and may cause them to experience depression.

What the research says

A person may experience depression before any of the physical symptoms of Parkinson's disease. A 2013 study found that people diagnosed with depression were 3.24 times more likely to go on to develop Parkinson's disease. A further study in 2015 determined that depression might be an early symptom of Parkinson's disease or a factor that increases the risk of developing the condition. Scientists at The Michael J. Fox Foundation believe that decreased levels of serotonin in the brains of people diagnosed with Parkinson's disease cause depression. The research to prove this link is ongoing.

How is it managed and treated?

Share on Exercise is recommended, as a treatment, to help manage depression for people with Parkinson's disease. The following treatments may help people with Parkinson's disease manage depression:

- antidepressant medication
- exercise
- counselling

A 2012 study found two types of antidepressants were effective in reducing the symptoms of depression in people with Parkinson's disease. These were:

- selective serotonin reuptake inhibitors (SSRIs)
- serotonin and norepinephrine reuptake inhibitors (SNRIs)

There are different brands of these antidepressant types available. A doctor can prescribe these. Also, the following strategies can help a person manage depression:

- planning small goals that can be achieved each day
- seeing friends and family, or speaking on the phone
- trying to keep up leisure activities
- reading about depression and trying to talk to close friends or family about it

-VAISHNAVI PILODKAR(TY)

HYPERTENSION : THE SILENT KILLER

Hypertension is another name for high blood pressure. It is not a disease in itself, but is an important risk factor for cardiovascular mortality and morbidity. Keeping blood pressure under control is vital for preserving health and reducing the risk of these dangerous conditions

Symptoms:-

A person with hypertension may not notice any symptoms, and so people often call it the "silent killer." Without detection, hypertension can damage the heart, blood vessels, and other organs, such as the kidneys. In rare and severe cases, high blood pressure causes sweating, anxiety, sleeping problems, and blushing

Causes of hypertension:-

Primary Hypertension : high blood pressure that is not due to another condition or disease

Secondary Hypertension : If an underlying condition is the cause of increasing blood pressure.

Signs:

A sphygmomanometer, or blood pressure monitor, can help people keep track of their blood pressure. Having high blood pressure for a short time can be a normal response to many situations. Acute stress and intense exercise, for example, can briefly elevate blood pressure in an otherwise healthy person.

MANAGEMENT AND TREATMENT

1. Regular physical exercise :

people including those with hypertension, should engage in at least 150 minutes of moderate intensity, aerobic exercise every week, or 75 minutes a week of high intensity exercise. example of suitable activities are walking, jogging, cycling, or swimming.

2. Medication:

Antihypertensive drugs are used which include the following classes:

- Diuretics - hydrochlorothiazide , furosemide , spironolactone, amiloride
- α and β blockers - propranolol, metoprolol, atenolol, prazosin, terazosin.
- Ca 2+ channel blockers : verapamil, diltiazem, nifedepine
- Vasodilators : captopril, enalapril
- Angiotensin blockers: losartan, telmisartan, valsartan

3. DIET :

The U.S. National Heart, Lung, and Blood Institute (NHLBI) recommend the DASH diet. DASH stands for "Dietary Approaches to Stop Hypertension" It is a flexible and balanced eating plan. Also probiotic supplement may benefit the people

4. Reducing salt intake

People's average salt intake is between 9 grams and 12 g per day in most countries around the world.

The (WHO) recommend reducing intake to under 5 g a day to help decrease the risk of hypertension and related health problems. Lowering salt intake can benefit people both with and without hypertension.

-AMISHA PUNMIYA (TY)

FAKE NEWS DURING THE PANDEMIC

INTRODUCTION

"We are not just fighting epidemic, we fighting against infodemic". We can cure or prevent the disease caused by virus or bacteria but there is something called information disorder, where it has become extremely difficult to disambiguate truth from false hood Yes, I am talking about misinformation/fake news. There is still a disconnection between what people thinks is true and what people are willing to share.

Fake news is travelling much faster than coronavirus in world.

- One of the worse fake news was consuming chicken could lead to the covid-19 infection. This fake news spread like wildfire, caused massive damage to poultry industries as many people stopped consuming meat.
- As soon as India reported its first covid-19 case on 30 January, the country's social media space suddenly experienced a massive spike in all kinds of misinformation in the form of videos, images, short interviews. One of first prominent fake messages was home remedies of Vitamin-C warding off the virus. In this regard, several fake videos started circulating in the name of well-known Doctor Devi Shetty recommending people to take hot water with lemon juice to improve immunity.
- Even before fact-checking sides debunked this millions of fake massages including catchy & appealing videos promoting the miracle power of cow urine, or Gaumutra, to cure the disease began to show up on most prominent social media platform.
- In the wake of the controversial congregation of Islamic missionary Tablighi Jamaat in mid-march in Delhi's Nizamuddin leading to a huge spike in positive cases across many parts in India.
- Similarly, several fake videos were in circulation depicting Tablighi Members in Quarantine spitting at health workers and deliberately sneezing to spread the infections.
- More worryingly, a number of fake videos began circulating in Indore and other cities spreading rumours that Muslim youth were being picked up to be injected with covid-19 positive blood at the quarantine centres.

Conclusion:

To sum up, the world has been simultaneously fighting against two viruses, one real & the other being the fake but equally lethal. Many would not have imagined that fake news becoming a major menace in the time of life-threatening pandemic.

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-DEEPALI GAWAND(TY)

NANOBOT : A ROBOT

Diseases, drugs, recovery!! And a lot of time.

Have you ever thought what could possibly make this process less stressful?

This article is all about it:

An emerging and a very innovative system

NANOBOT: A robot

You read it right, a 50-100 nm wide nanomaterial built robot.

Drugs work around the entire system before they actually reach the site of action along with undue side effects and thus nanobots!The whole idea behind nanorobots is instead of having a host of chemicals inside a pill we rather have an actual working machine in it.The drug carriers have walls that are just 5–10 atoms thick and the inner drug-filled cell is usually 50–100 nm wide. When they detect signs of the disease, thin wires in their walls emit an electrical pulse which causes the walls to dissolve and the drug to be released.

Oh well! added advantage being

- The amount and time of drug release can be easily controlled by controlling the electrical pulse.
- Nanobots will be able to specifically target the cells and deliver the drugs only to those cells.
- These Nanobots can be tracked using radioactive dyes

Fun fact: In the next 10 years or so, your blood will probably be streaming with tiny nanorobots to help keep you from getting sick.

And all we have is life extension!!

Yes, here's a thing; Life Extension through Nanotechnology!!

One is by helping to eradicate life-threatening diseases such as cancer, and the other is by repairing damage to our bodies at the cellular level and so we would possibly be able to call them miniature surgeon's. Here are few of the nanorobots for use in the medical field-

- Respirocytes- which yet are hypothetical nanobots engineered to function as artificial red blood cells.
- Clottocytes- These are another type of nanobot which function as artificial platelets for halting bleeds. The clotting ability of one injection of clottocytes would be 10,000 times more effective that an equal volume of natural platelets.
- Microbivore nanorobots : To function as wbc's
- Cellular repair nanorobots: These little guys could be built to perform surgical procedures more precisely.

So wait and watch ,

Innovation and life extension !!

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-KINNARI CHAKKERWAR (T.Y.)

INTRODUCTION

1. Keeping the stock market open amid the coronavirus-induced nationwide lockdown was one of the best decisions as panic would have led to a collapse.
2. Bengaluru-based Zerodha, India's largest brokerage, said it saw a surge in account openings to the extent of 100 per cent from pre-lockdown levels.

Impact:-

The daily average trading volume hovered around 8.5 million, representing an increase of over 80 per cent from regular levels.

A lot of investors used the lockdown to enter the market at attractive prices. They viewed earnings from the market as an alternative source of income during these trying times.

Stock investors mostly stuck to largecaps even though these stocks performed at par with broader market. The 30-share Sensex added 30 per cent since the March 24, when the government had clamped the lockdown. In comparison, BSE Midcap index has risen 27 per cent and BSE Smallcap index 29%

30 Stocks that Fell to a 52 Week Low:-

Witnessing weak financial market, 30 stocks dipped to 52-week low during the last session. ABB, Chalet Hotels, Brigade Enterprises, Bajaj Finance, Prime Focus, SBI, India bulls Ventures, CPC, Cyient and The Karnataka Bank were some of the stocks to witnessed a 52 week low. 9 Stocks that Hit a 52 Week High:-

In the last trading session, nine stocks surged and touched 52-week highs. Nifty 50 closed at 9030.90 registering a drop of 75.35 points while Sensex ended 253.23 points low at 30679.67.

Alchemist, Educomp Solutions, Rajratan Global Wire, JMT Auto India Cements, and WABCO India, were the stocks that touched a 52 week high.

Conclusion :-

Indian Stock Market Crash in 2020: After making a peak of 42,273.87 points in Feb 2020, Sensex crashed over -38% by 23 March 2020 to 25,638.90 points. We are currently witnessing one of the fastest crashes in stock market history, even worse than the 2008 market crash as quoted by many leading market analysts.

The Covid-19 curve has hardly flattened, the case count is rising, and uncertainty prevails over economic revival with India staring at its worst growth performance in four decades. Despite this, stock markets have rebounded to March levels

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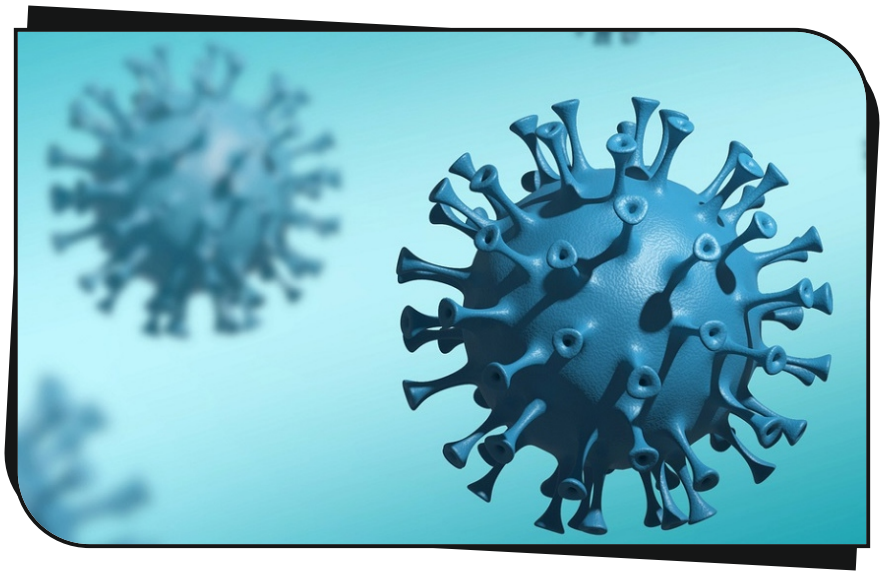
-GANESH SIRVI (TY)



PHARMA INDUSTRY IN THE AGE OF ARTIFICIAL INTELLIGENCE

Artificial Intelligence in pharma refers to the system of interconnected and automated technologies in the biotech industry which can function autonomously, with little or no human intervention. Artificial intelligence in Pharma refers to the use of automated algorithms to perform tasks which traditionally rely on human intelligence. AI is an emerging technology that is finding its way into many facets of the pharma sector, from drug development to diagnosis and even patient care. Various big pharmaceutical players are already getting their feet wet in the world of machine learning and artificial intelligence.

In fact, all of 10 big pharma companies (namely Novartis, Roche, Pfizer, Merck, AstraZeneca, GlaxoSmithKline, Sanofi, Abbvie, Bristol-Myers Squibb and Johnson & Johnson) have either expressly collaborated with or acquired Artificial Intelligence technologies to take advantage of the opportunities AI brings to the table.

Major Areas Where AI Can Be Seen as a Positive Force in Pharma

1) Discovery and Development of New Drugs
2) AI is helping big pharma create cures for complex & rare diseases
3) Drug-Adherence & Dosage
4) Using AI To Make Sense of Clinical Data & to Produce Better Analytics
5) Finding More Reliable Patients Faster for Clinical Trials
6) High accuracy in epidemic prediction

Challenges to Adoption of AI in Pharma

While AI has an extensive potential to help redefine the pharmaceutical industry, the adoption itself is not an easy walk in the park.

Here are a few lessons and challenges that pharma companies face while trying to adopt AI:

- The unfamiliarity of the technology – for many pharma companies, AI still seems like a "black box" owing to its newness and esoteric nature.

- Lack of proper IT infrastructure – that's because most IT applications and infrastructure currently in use weren't developed or designed with artificial intelligence in mind. Even worse, pharma firms have to spend lots of money to upgrade their IT systems.

- Much of the data is in a free text format – that means pharma companies have to go above and beyond to collate and put this data into a form that's able to be analyzed.

Despite all these limitations, one thing is for certain: AI is already redefining biotech and pharma. And ten years from now, Pharma will simply look at artificial intelligence as a basic, everyday, technology.

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healthcareweekly.com

-NIKITA GHARAT(TY)

MITOCHONDRIA: A CELLULAR STRESS SENSOR

When we are asked what is mitochondria? The first thing that comes to our mind is that it is the power house of a cell which provides energy to carry out cell functions. Well, the researchers at **Salk institute for Biological Studies** have discovered a new function of mitochondria!

They can also function as cellular stress sensors.

When a cell is exposed to a chemical stress which can damage its DNA such as drugs used to treat cancerous tumours.

Just like a fire alarm, the mitochondria will sense this stress and hence act as a cellular stress sensor!

How does it sense stress?

The nucleus of a cell consists of DNA (Nuclear DNA) which is inherited from both the parents. But, mitochondria of a cell have its own DNA which is known as the **Mitochondrial DNA (mtDNA).** This DNA is inherited maternally.

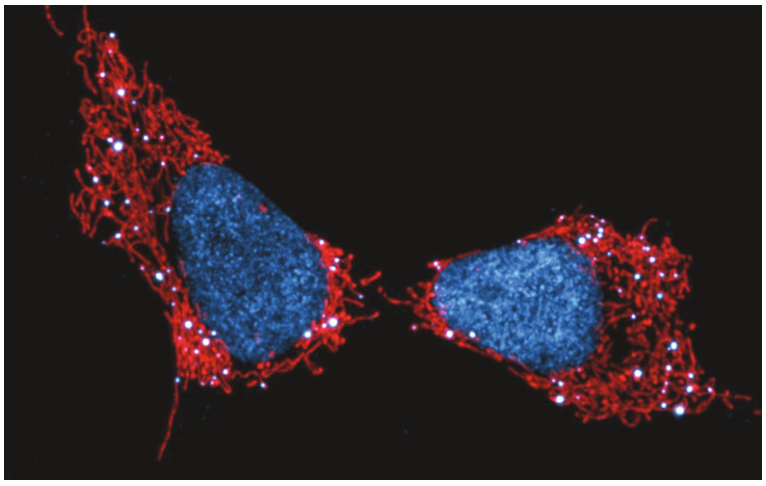

Fig: Mitochondria seen in red, cell nuclei (blue) and mtDNA (white dots) Salk Institute/Waitt Advanced Biophotonics Center.

Now, when a cell undergoes a chemical stress in case of cancer chemotherapy (e.g. - Doxorubicin), the mitochondria will detect it and release its mtDNA in the cytosol of the cell.

This mtDNA will now cause activation of a molecular pathway known as the **cGAS–STING–TBK1 pathway.**

This pathway is a component of innate immunity which activates the defence mechanism of the body when it detects the mtDNA in the cytosol of the cell.

The pathway will now active the defence mechanism by triggering the expression of inflammatory genes. Such as interferon stimulated genes (ISGs). The ISGs will help to protect the nuclear DNA from damage due to chemical stress.

This function of mitochondria will lead to the resistance of cancerous cells to the antineoplastic agents.

We can avoid this form of chemotherapy resistance if we could prevent the damage to mitochondrial DNA or its release during cancer treatment.

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2) Bogenhagen, D. F., Rousseau, D. & Burke, S. The layered structure of human mitochondrial DNA nucleoids. J. Biol. Chem. 283, 3665–3675 (2008).

3) NF-κB and the immune response -M S Hayden, A P West & S Ghosh Oncogene volume 25, pages6758–6780(2006).

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-MARYAM PATHAN (TY)

INTRODUCTION

Infectious or communicable disease can be defined as an illness caused by another living agent, or its products, that can be spread from one person to another An emergency condition can be defined as a state of disarray that has occurred during or after a regional conflict, or a natural disaster (i.e.: flood, earthquake, hurricane, drought).

Infectious disease during an emergency condition can raise the death rate 60 times in comparison to other causes including trauma Greater than 40% of deaths in emergency conditions occur secondary to diarrheal illness with 80% of those involving children less than 2 years of age Of note, there is no dependable performance assessment tool in improving communicable disease surveillance in regards to outbreaks of infectious disease although the Centre for Disease Control (CDC) has proposed viable mechanisms for public health in general.

Communicable Disease Control:

An epidemic, or outbreak, can occur when several aspects of the agent (pathogen), population (hosts), and the environment create an ideal situation for spread. Infectious agents are plentiful, mutate rapidly, and can become resistant to drugs if not destroyed completely. Low vaccination rates, poor nutrition, age (young and elderly), and immunosuppression all contribute to infectious risk. Overcrowding, poor regional design and hygiene due to poverty, dirty drinking water, rapid climate changes, and natural disasters, can lead to conditions that allow easier transmission of disease.

Prevention:

"Prevention" involves shelter, site planning, cleanliness, vaccination, vector control, and education.

1) First, shelter and site planning, involves creating an environment that will avoid packing together individuals tightly as well as avoiding areas with high vector transmission, poor water supply, low security, poor vegetation and soil, and low ability for access (ie: close enough to a major center, but not so far as to make travel impossible).

2) Second, cleanliness covers many aspects of what has already been discussed in the emergency room setting. Of note, full biohazard precautions should be taken with viral hemorrhagic fevers such as Ebola (to be discussed below).

3) Water must be available for up to seven liters per person per day (in the most extreme situations), and it must be clean. This can rise up to 20 liters per person per day if taking into account bathing as well as cooking. Diseases spread in contaminated water are plentiful, and their evasion is of utmost importance in emergency conditions. Biological quality (less than 10 fecal coliforms per 100 ml of water) is important. Chlorine can be used to disinfect water. Chemical quality is of less importance than biological quality.

4) Waste disposal is important. Areas for excretion should not be near water sources, and they should be maintained with detail for sanitation. Pits to dispose of the contents should be created. Solid waste should be buried and/or burned. Liquid waste (ie: bathing) should be diverted into either storm water drains, or if in a dry area, to an isolated, separate pond, for disposal at a later time. Medical waste could be incinerated, preferably near the camp itself, making sure the contents do not travel to other dwellings. Otherwise, they should be buried after being sealed in a metal container.

4) Disposing of the dead involves burial to at least 1 meter below earth. In most cases, the bodies should be wrapped in a body bag. Full biohazard precautions should be undertaken for diseases such as Ebola during burial. The clothing and other contact items of the deceased should be burned. With cholera, and other diarrheal illnesses, the bodies should be disinfected with 2% chlorine solution.

5) Controlling vectors such as mosquitos (Malaria, Dengue, others) is essential to reduce specific disease transmission. For mosquitos, chemical environmental control, and use of mosquito nets treated with insecticide and repellent sprays are crucial. For Malaria, prophylactic drugs can be used. Environmental sanitation is important for Filariasis to prevent breeding of the Culex spp. mosquitos. For other vectors such as flies, mites, lice, and fleas, hygiene, insecticide and repellants are key factors in prevention of disease.

6) Food supply for poor, underdeveloped nations is crucial in preventing disease. A person with malnutrition will be immunosuppressed and more likely to contract disease as well as less likely to survive the physical toll of any infectious disease. In addition, as with water, sanitation of food is key, and undercooked foods can lead to disease.

7) A powerful vaccination campaign is imperative for prevention. Globally, vaccines against Measles, Meningococcal Meningitis and Yellow Fever are the most important to public health. Cholera vaccines can also be used.

8) Measles requires 96% coverage for herd immunity to be established, and so with an outbreak of any disease, if the affected population is vaccinated <90% for measles, then prioritizing measles vaccination is necessary. Additionally, prioritize measles vaccines based on age, specifically, between 6 months and 14 years of age.

9) Epidemic Meningitis can occur in crowded conditions, and is most commonly caused by Neisseria meningitidis. The vaccines for several serogroups of this pathogen last about 5 years (2 years in children), and it is 90% effective in those older than 2 years old. Children aged 2-10 years old are the most at risk.

10) Yellow fever is only deadly in 5%, but the vaccination is effective in 95%, and lasts 10 years or more. The viral disease is transmitted by mosquitos and can have high morbidity when concurrent with other disease outbreak. It should not be given to symptomatic HIV-infected persons. The vaccine has a significant side-effect profile (fever, headache, myalgia) as compared to other vaccines.

11) Oral cholera vaccines are available for those travelling to endemic areas as well as to people involved in emergency conditions. 2 doses of the oral cholera vaccine can be up to 65% effective for up to 5 years according to the most recent research.

Notable Communicable Diseases:

Cholera, Ebola and Marburg (Viral Hemorrhagic Fever), Hantavirus, Hepatitis, HIV/AIDS, Influenza, Malaria, Measles, SARS, MERS, Tuberculosis

-EKTA CHOGALE (TY)

How digital is changing the pharma and healthcare industry!

Digitalization is taking the pharma & healthcare industry by storm. In survey by Accenture, it was found that approximately 78 per cent of the people are willing to receive healthcare services virtually. In fact, physicians themselves are using digital modes for improved patient care. These advancements are just the beginning of an era which will lead to a great future of the health and pharma industry.

SOME OF THE NEW TRENDS IN DIGITAL ERA ARE:

1. The launch of new business model:

One major change digitalization brings to the pharma sector is introducing new business strategies. According to pharma 2020, companies will be binding to restructure their portfolio, change their business processes and collaborate in strategic alliances to stay functioning and keep their market share.

2. Active role of patients in treatment:

Traditionally, when a patient suffered from a condition, they would make an appointment with a doctor. Previously, the patients relied on the instructions and drugs prescribed by the doctor. However, with digitization, patients usually research everything before seeing a doctor. They match their symptoms to conditions. Some may even talk to other patients with a similar problem and try to devise a cure.

3. Access to wide range of medical products:

The pharma and healthcare sector is data rich, and is growing richer with every passing moment. Gone are the days, when medicinal product information was only limited to pathways of pharma companies. In fact, consumers and patients were disclosed insights on a need-only basis. However, with the introduction of digital technology in the pharma industry, the secrecy no longer exists. Information about every medicinal product is available on the internet.

4. Day to day healthcare tracking apps:

According to facts, every 2 out of 5 physicians suggest their patients try healthcare apps. The aim is to make patients aware of their health and drive change. Some of the most common apps used by the patients are Omnio, Iodine, PubMed Ontap, etc. Even doctors are using apps for professional use. Some of the most common apps used are Medscape, Visual DX, Epocrates, etc.

This digital mode offers more convenient ways to get medical services and access to healthcare information. Moreover, the medical apps are also proving to be a big help in countering emergency situations.

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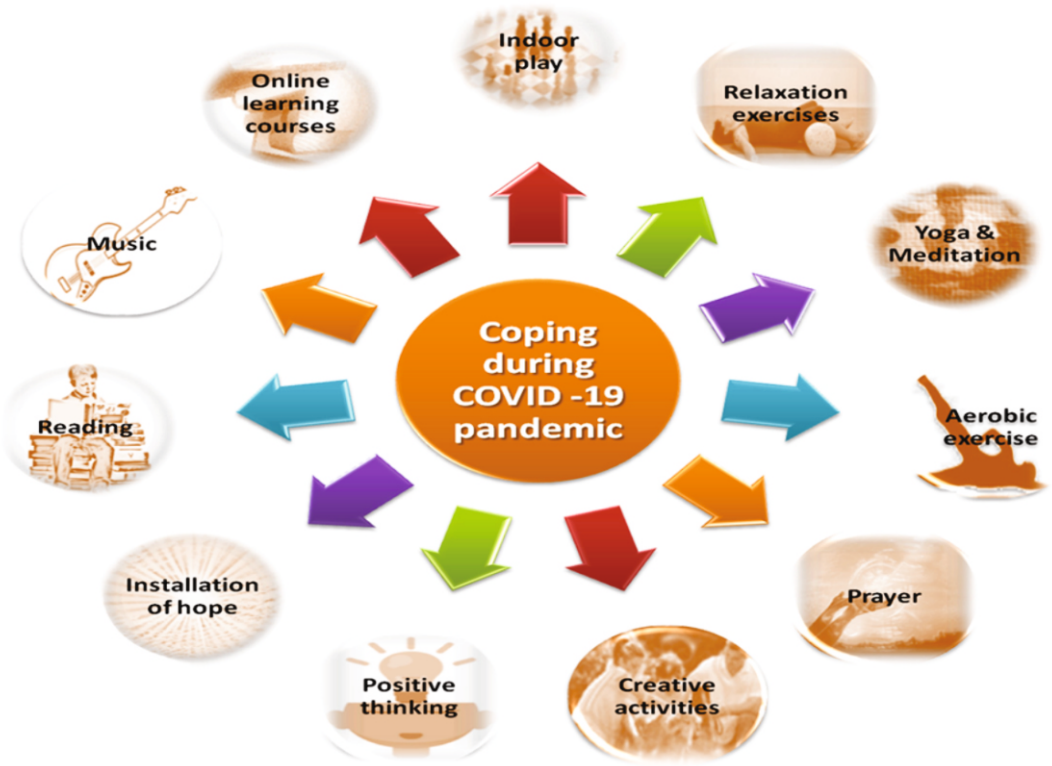
https://www.pharma-iq.com/medical-devices-and-diagnostics/articles/how-digital-is-changing-the-pharma-and-healthcare-industry

-BHAVNA CHOUDHARY (TY)

LOCKDOWN HAS AFFECTED MENTAL HEALTH OF MANY – WHAT NEEDS TO BE DONE TO AVOID PANIC!

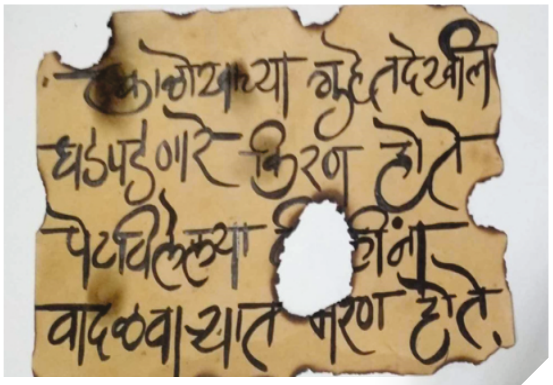
After the Covid-19 outbreak, during lockdown 1.0 itself, the Indian Psychiatric Society reported that mental health concerns have increased by an alarming 20%, with an unprecedented rise in psycho-social concerns like: family issues, depression, anxiety disorders, substance abuse, sexual abuse and domestic violence. Stress and panic attacks have increased by over 35%. Those with depression or anxiety disorders in remission are seeing a relapse. People with OCDs like the compulsion to wash hands are understandably in a state of panic. Sadly, we've seen suicides as well because of this pandemic. At now, 40% of the new cases post-lockdown are related to anxiety disorders, 20% to depression, 5% to OCD exacerbation and 20% to relationship issues.

To cop-up with such upcoming mental illness problems one should include the things mentioned in the picture to his daily lifestyle which aims in keeping up with mental health and avoiding risks related to it.



-SUSMIT PRASHANT NIKAM
(FINAL YEAR)

DRAWING, ART AND SKETCHES



Shraddha Balsaraf (T.Y.)

Ashish Bharatav (S.Y.)

Nikita Tiwari (F.Y.)

Megha Kale (S.Y.)

Amisha Patil (F.Y.)

Tejaswita Sorate (T.Y.)

Sabreen Khan (T.Y.)

Sneha Shinde (T.Y.)

Shraddha Balsaraf (T.Y.)

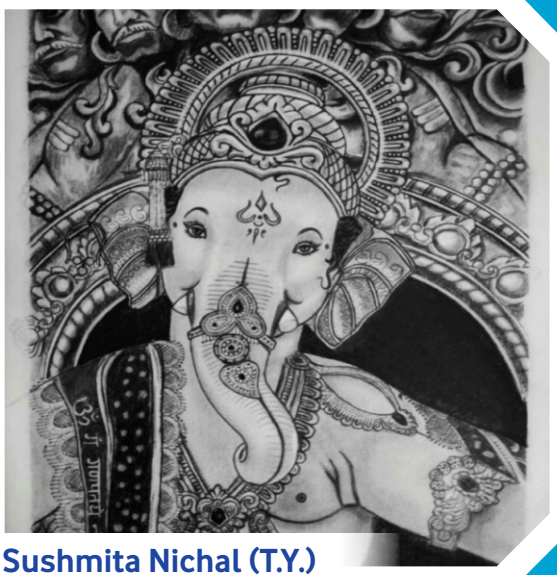
Shefali Patil (T.Y.)

Mahesh Jadhav (F.Y.)

Nikita Tiwari (F.Y.)

Vanshika Bhoir (T.Y.)

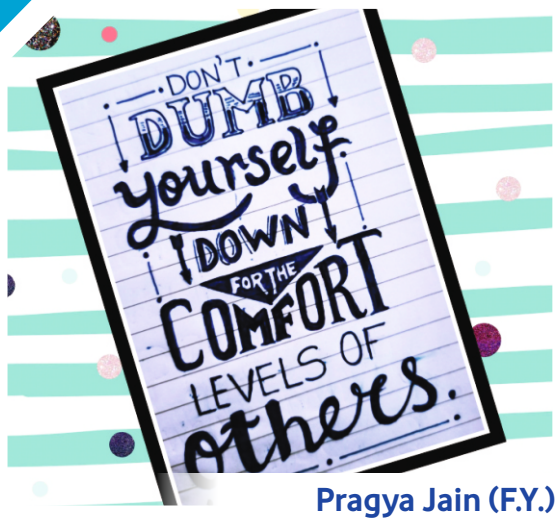
Mahesh Jadhav (F.Y.)



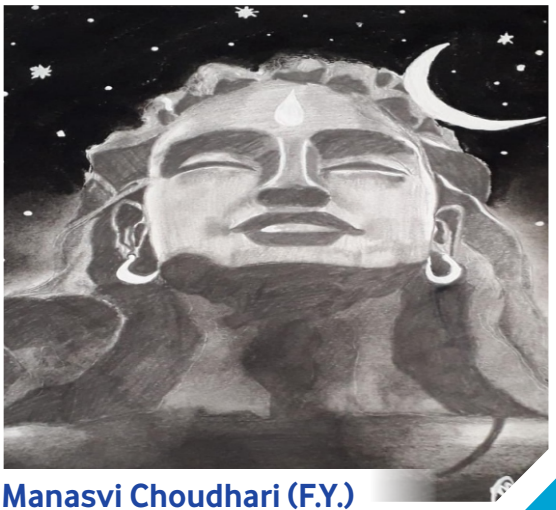
Sushmita Nichal (T.Y.)

Shefali Patil (T.Y.)

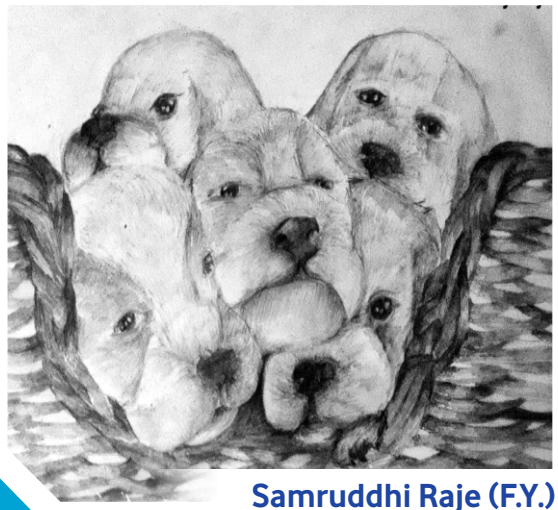
Ashish Bharatav (S.Y.)



Pragya Jain (F.Y.)

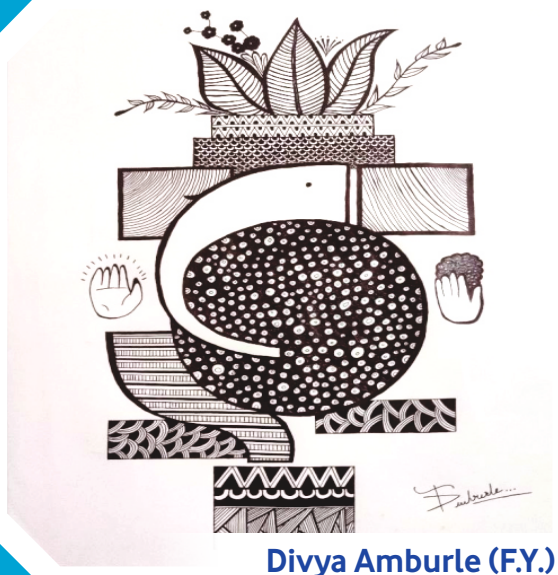


Manasvi Choudhari (F.Y.)



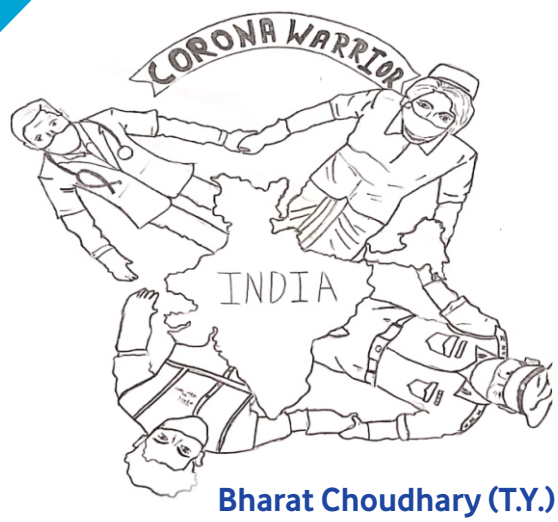
Samruddhi Raje (F.Y.)

Chinmayee Thakur (F.Y.)



Divya Amburle (F.Y.)

Sneha Shinde (T.Y.)



Bharat Choudhary (T.Y.)

"ALL LOVE IS EXPANSION, ALL SELFISHNESS IS CONTRACTION"...

What is love? Is it a expression, is it a feeling? Is it an emotion? As quoted by our sapient idol **"Swami Vivekananda",** all love is expansion and all selfishness is contraction". Love is the only law of life and the one who is selfish is dying. Love will bring people together. Love will connect people hearts. A man due to his selfishness, meets to death.

"love is not love, which alters when its alteration finds" says **William Shakespeare.** When you do not have generous towards anything, anything that you have is **selfishness.** I will explain this with the help of **blood circulation** as being a pharma student.

Eg: 2 medical terms called **vasodilation & vasoconstriction.** Vasodilation in lay terms is nothing but widening of blood vessels in our body to ensure smooth blood flow within the body and vasoconstriction is narrowing of blood vessels thereby reducing the blood flow within. This is just a fair idea of what happens inside your body. We human beings are warm blooded.

Let's for a minute, compare love with vasodilators and selfishness with vasoconstriction . love in any form or towards any beings is warm approach and science proved it enough times. Now imagine this in state of selfishness which constricts your growth and alters your state of mind, imagine a wave of warm love expanding your horizons of self-improvement and that of your surroundings. It only helps in you thrive....

We have too many people to quote. **Mother Teresa, Rabindranath Tagore** and many more. Their selfless acts of love have unveiled humanity in an altogether different manner which doesn't favour a certain creed, caste or race.

Conclusion:

Therefore love for love's sake, because it is law of life, just as you breathe to live..

Reference:

www.careers360.com , www.pintrest.com

-SIDDHI GAWAND (T.Y.)

Poetry

Kya hua agar aj ek sapna toota hai ?

Ya koi apna rootha hai?

Kya hua agar aj kisika saath chootha hai?

Ya ye dil toota hai?

Kaamyaabi yu he nahi milti !

Gir kar , sambhalkar, firse uthkar toh dekh.

Aandhere se ujale ki taraf mudkar toh dekh.

Khoobsurat sa hai ye safar mehsoos kar ke toh dekh.

-KINNARI CHAKKERWAR (T.Y.)

When the weather is nice.....

Do you know what warm this?

She asked me and I answered"

It's when my cold hand touches your cold hand and.....

We both become warm"

When lone lines meet loneliness...

And become coziness"

When sadness meet sadness.....and become happiness"

When a cool breeze collides another cool breeze.

And become softs now"

That's what warm this.....

-SABREEN KHAN (T.Y.)

DOCTORS THE REAL HEROES...

When was the last time you thank to those peoples?
When was the last time you went to them?
When was the last time you appreciated their effort,
When was the last time you realized, that they too can hurt.

They have been giving their all for you,
They have been working day in and out,
They have been risking their life too,
They left their families behind.
They haven't slept in a long time,
They are busy in savings life without a fall.
All superheroes do not we kept after all.

Some are still not realizing what these angels are doing for us,
Some are still not standing with them and cooperating.
It's high time we need to stand with them and support them,
Till when we keep quiet to this black world.
Let acknowledge their sacrifices they are making,
Let appreciate the heroes they always come out to be.

Let's thank you for being the relentless,
For shining strong and facing the adversities.
For doing all that you can beyond your qualification duty.
Thank you to all doctors of ours and numerous other countries.

-DEEPALI GAWAND (T.Y.)

GO CORONA GO...

No more shaking hands.
Don't touch your face.
Never stand too close
In a crowded place.

A virus is amongst us.
It's roaming around our land.
It contaminates and does us harm
By the simple touch of our hands.

Dark days are fast approaching.
We have to be aware.
Hygiene is our only shield
To this demon who waits out there.

Our world is now at war
With an enemy that's unseen.
But we can beat the invader
If we all keep our hands squeaky clean

- MANISHA YADAV (T.Y.)

History is written by those who win,

History is written by those who live,

History is like a coin you flip,

It depends on which side it slips.

The other side remains unknown,

Years pass, gets embraced by dust

Sand, water and scorching heat,

All try to free the chains.

But the lies imprinted on minds shine so bright,

The truth blinded,

Gets deserted back.

Noone tries to find the reasons why..

Love and honour back then,

Maybe chose sides.

Known and unknown whispers lie,

Someplace where the history hides.

-SNEHA SHINDE(T.Y.)
(AQUA GLADIATOR)

A RAY OF HOPE...

In light of all the troubles that we have today,
There are just a few things I would like to say,
Although this days feel long,
Together we shall always stand strong.

Share your kindness and reciprocate your love,
It's no time to be mean, push and shove,
Hold onto your loved ones, hold them tight,
Follow the rules and do what's right.

Spend this precious time with your family,
Read books, play games and enjoy being silly,
Watch TV, snuggle up on the couch,
Refrain yourself from becoming a grouch.
Take time to enjoy all the little things,
The small things and the pleasure that it brings,
But most importantly,
Stay safe, be brave, for this too shall pass.

- NIKITA MASHILKAR (T.Y.)

NCRD's

Sterling

INSTITUTE OF PHARMACY

Approved by A.I.C.T.E., New Delhi, Recognized by University of Mumbai & Government of Maharashtra

Plot No.93/93A, Sector 19, Near Seawoods Railway Station,
Nerul (East), Navi Mumbai, Maharashtra 400706
Website: www.ncrdsip.com, E-mail: principal@ncrdsip.com.