MARRI LAXMAN REDDY GROUP OF INSTITUTIONS

Marri Laxman Reddy Institute of Pharmacy

(Approved by AICTE & PCI, New Delhi, JNTUH Affiliated)
Dundigal -Gandimaisamma (V)&(M)
Medchal Dt, Hyderabad
Telangana State - 500043

"Education is the most powerful weapon which you can use to change the world."

– Nelson Mandela

INSIDE THIS:

PharmaScout

MLRIP's official e-mag

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Sri Marri Laxman Reddy

Chairman

MLR Group of Institutions

He has been in the field of education for more than three decades. He is an exemplary personality and extraordinary visionary and a constant inspiration to the younger generation. He is a veteran athlete of international repute. He emphasizes the importance of physical health for academics and overall personality development.

Sri Marri Rajshekar Reddy

Founder-Secretary

MLR Group of Institutions

He is a person of great acumen and remarkable abilities. He is a dynamic leader and strives hard to make every dream a reality. He is an initiator, innovator, and executor of novel plans for the progress of the institutions. He is the motivational and driving force of all the activities in the campus.

PRINCIPAL'S DESK

Dr. K. S. Murali Krishna
Professor & Principal

Transformation:

Throughout the course of history, disease outbreaks have ravaged humanity, sometimes changing the course of history and, at times, signaling the end of entire civilizations. These diseases are dating from prehistoric to modern times right from Prehistoric epidemic Circa (3000 B.C), plague, Spanish flue (nearly a century ago, which caused for millions of deaths), to present COVID 19. The man survived all these relentless onslaughts from time to time with the grit and determination and unstinted efforts of the scientific community for the development of antibiotics, antiviral and other drugs and vaccines.

It may be an exaggeration, but I feel...

At this moment, most of us, if not all are adversely affected in one or more aspects like physical, physiological, psychological and economic. Of course, this is my reference to the COVID- 19 pandemic situation. The human race is in a transition state and requires the transformation from pandemic to post pandemic situation. The period of transformation may not be same for all situations but certainly unpredictable. By gazing the present situation, it looks we require more time than initially anticipated for normalcy (normality). Again, it depends on the development and availability of vaccine to the larger proportion of the population.

We assume work pressure will cause stress; but even sitting idle will also result the same. Stress and undue worrying lead to emotional problems of an individual.

Therefore "Better to be busier in productive work than to be busy worrying."

GUEST SPACE

Dr. Sai Krishna Gudi
Pharm. D, MS, (Ph.D)

Dr. Sai Krishna Gudi is a research scholar at the College of Pharmacy, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Canada.

He is a young talented researcher in the field of Pharmacoepidemiology & Outcomes Research. His research areas of interest include Knowledge Translation through Evidence-Based Practice, Optimizing Irrational Drug-use, Patient Reported Outcomes and Public Health.

Refer the guest article in Page No. 2

Guest Space

Language Matters: Is it Social or Physical Distancing to be followed during Outbreaks?

During the course of the Coronavirus Disease (COVID-19) pandemic, many of us have come across and, in fact, became familiar with the term ***social distancing***, while it is argued that ***physical distancing*** is the appropriate phrase to be used in containing the transmission of the virus. Physical distancing is a geographical distance that has to be maintained between person to person to prevent the spread of infection and usually measured in the metric system such as meters and feet, while *social distancing* refers to a distance across social boundaries. The term *social distancing* can imply a sense of staying away from the social connections and stop communicating with one another, while instead public could actually remain socially connected even while being apart.

Choosing the right language matters and accurate dissemination of information is vital, especially when mankind is facing a novel pandemic like COVID-19. At times, *social distancing* could be a threat, as it makes people socially isolate and thereby potentially leading to stress, which further contributes to anxiety, loneliness, fear and grief that could, in turn, lead to a whole new crisis. Undoubtedly, *physical distancing* measures have to be in place to protect everyone's physical wellbeing; however, mental wellbeing is also obviously important, and it is suggested, therefore, to rephrase the term *social distancing* to *physical distancing*.

The term *social distancing* seems to be misleading, and its widespread usage could be counterproductive. During these unprecedented times of COVID-19, where social isolation is a serious concern, accurately describing what we are actually supposed to do in preventing the transmission of the disease is crucial. Although to remain physically apart is an essential message, people could stay socially connected using online social media platforms, due to the fact that mental health is just as important as physical health. As social ties are the critical elements in getting through disasters like COVID-19, social connectedness coupled with the *physical distancing* measures should be adopted. Furthermore, social connections are of utmost significance for building faith and trust and recovering from psychological distress that is caused during pandemics. As a result, the public, including health authorities, are inclined towards the term *physical distancing* rather than *social distancing*.

Although public health organizations such as World Health Organization (WHO) and Centers for Disease Control and Prevention (CDC) had widely used the term *social distancing* in initial days of the pandemic, finally now they are shifting their language accordingly and trying to correct an early error of mistaking *social distancing* for *physical distancing*. Correspondingly, the WHO is now officially advocating against the use of phrase *social distancing* and is from here on recommending the phrase *physical distancing* instead.

In a nutshell, the whole idea is that while maintaining a physical distance is absolutely essential to combat this global pandemic, it is also equally essential to stay socially connected. Adhering to the mitigating measures such as maintaining distance is not about breaking social connections with family and friends, but rather maintaining a physical distance to make sure that disease does not spread. Therefore, *physical distancing* could be a better term to be used than *social distancing*, especially during pandemics.

SCOPE OF 3D PRINTING IN THE PHARMACEUTICAL INDUSTRY

Dr. Gabriela Keerthana Gondhi, Pharm. D, Asst. Professor, Dep. of Pharmacy Practice

V. Himaja, B. Pharmacy

WHAT IS 3D PRINTING?

3D printing or additive manufacturing is a process of making three dimensional solid objects from a digital file. It is achieved using additive processes where object is created by laying down successive layers of material until the object is created. Each of these layers can be seen as a thinly sliced horizontal cross-section of the eventual object. 3D printing enables you to produce complex shapes using less material than traditional manufacturing methods.

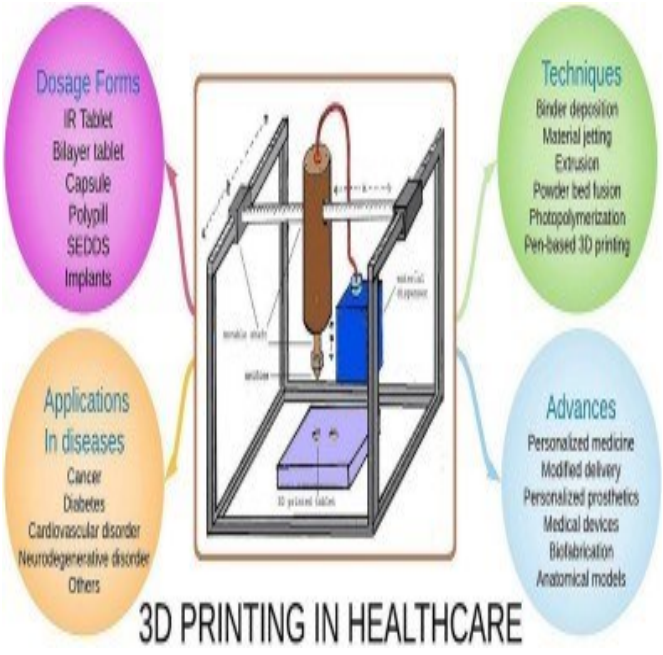
APPLICATIONS OF 3D PRINTING IN THE PHARMACEUTICAL INDUSTRY

1. PERSONALISED MEDICINE:

As new drugs are developed that have increasing potency and differential effects within populations, there is a need to consider new manufacturing methods and novel supply chains to realize the paradigm of personalised medicines. 3D printing offers the possibility of creating a personalized medicine system through automated control over drug dose and is suitable for both low and high drug concentrations. This Technology can be used to manufacture pills tailored to the specific needs of the patient. It allows individualized dosages and custom drug combinations important for the ever-increasing demand of oral solid dose personalized medicine for treating chronic medical conditions.

2. FABRICATION OF VARIOUS NOVEL DRUG DELIVERY SYSTEMS:

3D printing process naturally appeared to be an essential tool in research and development area to fit with actual industrial directions of reducing both time and costs in the early stage of a novel manufacturing concept, reducing the inherent risk of new development to fail at later stages. 3D printing in pharmaceutical industry represents a well-designed tool for designing simple, accurate, cheap, structured and tailored drug delivery systems. This flexibility can offer many novel strategic approaches for the research and development of controlled-release drug delivery systems.



ADVANTAGES:

- High drug loading ability when compared to conventional dosage forms.
- Accurate and precise dosing of potent drugs which are administered at small doses.
- Reduces cost of production due to lesser material wastage.
- Suitable drug delivery for difficult to formulate active ingredients like poor water solubility, drugs with narrow therapeutic window.
- Medication can be tailored to a patient in particular based on genetic variations, ethnic differences, age, gender and environment.
- 3D printers occupy minimal space and are affordable.
- Manufacture of small batch is feasible and the process can be completed in a single run.

PCOS AWARENESS MONTH 2020

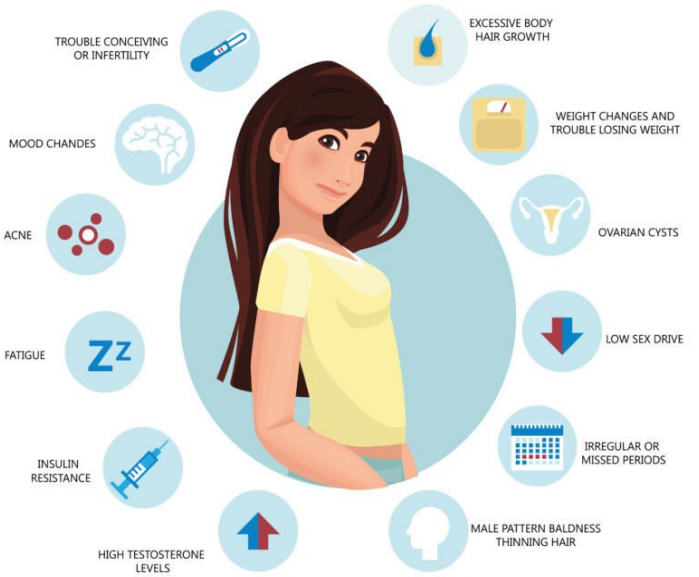
POLYCYSTIC OVARIAN SYNDROME (PCOS)

Dr. B. Raja Rajeshwari, Pharm. D, Asst. Professor, Dep. of Pharmacy Practice
Anushreya Silamkoti, Pharm. D VI Year

"1 in 5 Indian women suffer from PCOS"

Polycystic Ovarian Syndrome is the most common hormonal disorder that affects young and middle-aged women. Women with PCOS produce higher-than-normal amounts of male hormones. This hormonal imbalance leads to multiple problems impacting overall health and appearance.

PCOS SYMPTOMS



DIAGNOSING PCOS:

Despite the name, women with PCOS don't always have cysts in the ovaries.

The 3 main diagnostic features of PCOS are:
1. Irregular periods.
2. High levels of male hormones.
3. One or many cysts in one or both ovaries.

If you have at least 2 of these features, you may be diagnosed with PCOS.

A complete medical history, Physical examination, blood tests and ultrasound of the pelvic region assist in diagnosing PCOS and also in excluding other potential causes of your symptoms.

KNOWING THE CAUSES

The exact cause of PCOS remains unclear. In fact, both genes and environmental factors like resistance to insulin, obesity, excessive stress, lack of sleep, etc. may contribute to causing PCOS.

TREATMENT

PCOS is majorly a lifestyle disorder. There is no definitive cure, however, lifestyle changes and treatment directed at managing symptoms can help to a great extent.

Weight Loss: Even 10% of weight loss results in better uptake and use of insulin by body cells. It normalizes increased hormone levels, regularizes ovulation, and increases chances of conceiving.

Healthy Diet: Eating healthy aids in weight management, decreasing inflammation, and improving insulin use by cells.

Physical activity: It is related to improved insulin resistance and reduction in weight.

Managing stress: Stress can cause anxiety and sleep trouble. This can further aggravate the symptoms.

Emotional stability: It can cause stress and depression which can further trigger various health problems. Learn to let go of minor issues and try to stay more stable in case of major issues.

Getting enough sleep: Average 6-8 hours of sleep a day helps restore your body and mind. Lack of sleep can cause irritability, fatigue, or worsening of mood changes in PCOS.

Consulting an expert: The choice of treatment for PCOS depends on the symptoms.

Pharma#Throwback

LOUIS PASTEUR

FRENCH CHEMIST AND MICROBIOLOGIST

Dr. C. Suhas Reddy, Pharm. D, Associate Professor, Dep. of Pharmacy Practice
Anushreya Silamkoti, Pharm. D VI Year

Louis Pasteur born in Dole, France. Pasteur was an average student till his secondary school education. He was a good artist from his childhood. His pastels and portraits (paintings) which he painted at an age of 15 years, were kept in the Museum of the Pasteur Institute in Paris. He earned his Bachelor of Arts degree (1840), Bachelor of Science degree (1842) at the Royal College of Besançon and a doctorate (1847) from the École Normale in Paris.

Pasteur then spent several years researching and teaching at Dijon Lycee. In 1848, he became a professor of chemistry at the University of Strasbourg. His earlier work which led to the discovery of the molecular asymmetry of tartaric and racemic acid had a profound consequence for structural chemistry. The crystals of tartaric and racemic acid had the same chemical structure but had different effects on polarized light.

Art by:
Y. Vamsi Krishna
Pharm. D V Year

In 1854, Pasteur was appointed professor of chemistry and dean of the science faculty at the University of Lille. By 1856 he had begun his work on fermentation beginning with fermentation of milk into lactic acid. He reported the presence of micro-organisms which continued to bud and multiply. He was able to declare that the multiplication of the micro-organism resulted in true fermentations and caused wine and milk to become sour. Heating or "pasteurization" as it was called prevented this occurring. This early work on fermentation and the demonstration that if heated, wines no longer went sour saved the French wine industry.

Pasteur disproved spontaneous generation and demonstrated that life floated in the air as countless bacteria. In 1865, he proved that microbes were attacking healthy silkworm eggs, causing disease, he developed method to prevent contamination, used by silk producers throughout the world, and helped save the silk industry. Pasteur had been partially paralyzed since 1868, due to a severe brain stroke. In 1873, Pasteur was elected as an associate member of the Academie de Medicine. In 1877, turning to human disease he pioneered effective methods of treatment against virulent infections. He investigated his theory using silkworms and went on to develop a new form of vaccination- by chance he discovered that germs which had been weakened by long exposure to the air caused immunity to *cholera* in chickens. Pasteur had accidentally discovered an attenuated vaccine in 1879, for a disease called chicken cholera.

Louis Pasteur developed *germ theory*, which became central to our understanding of disease. His work made a significant contribution to the development of "*magic bullets*", chemicals developed to attack specific germs. In May 1882 he had produced a vaccine against anthrax and in 1885 he used rabies vaccine, developed by him, in a 9 year old Joseph Meister. He administered the first protective treatment for rabies in humans on 6 July 1885.

Agriculture, Medicine, and Humanity are indebted to this remarkable scientist. Pasteur is shown here on a stamp issued in 1936 (Stanley Gibbons 566, Scott B53) Surtax was used for the relief of unemployed intellectuals. Alongside, another stamp issued in 1985 commemorates the centenary of anti-rabies vaccination (Stanley Gibbons 2684, Scott 1979).

Student achievements

G. Tejaswini, won **I prize** in oral presentation on the topic entitled "NMR based metabolomics" in a DST, SERB SPONSORED two day national conference with a theme "NMR Technique & It's Applications in Pharmaceutical Sciences" conducted by Jaymukhi college of pharmacy, Warangal, on 21st September 2019.

Ms. Hrithika has participated and presented a scientific model on **"Explore the Mini Animal House"** and **won II Prize** for AICTE sponsored International Conference Organized by Bhaskar Pharmacy College, Hyderabad on 3rd & 4th January 2020.

Ms. Priyanka Kasala, Pharm. D IV year **won II Prize** in the **NPW-2k19 Comic Poster Making Competition**, Organized by Indian Pharmaceutical Association (IPA).

Ms. Yoshitha Sree, Pharm. D IV Year, **won III Prize** in the NPW 2019 **Leaflet Making Competition** Organized by Indian Pharmaceutical Association (IPA)

DISTINGUISHED ALUMNUS

Suryakanth Naule

Global Regulatory Affairs - CMC,
Alcon Laboratories,
Fort Worth, TX - USA.
Batch: 2007-2011

PHARMACONVERSE WEBINAR SERIES

GUEST SPEAKER	SPEAKER DETAILS	TOPIC DELIVERED	CONDUCTED ON
	**Dr. Lakshman Puli** Professor, School of Pharmacy, Technology & Management	COVID - 19: THE END OF THE BEGINNING	24/06/2020
	**Dr. Lokesh Deb** Scientist - D (Pharmacology), Institute of Bioresources & Sustainable Development (IBSD), Ministry of Science & Technology, Government of India, Gangtok, Sikkim.	ETHNOPHARMACOLOGICAL RESEARCH & DRUG DEVELOPMENT	30/06/2020
	**Mr. Ranjit Barshikar** CEO, Qbd International & United Nations, MPP Geneva Advisor	QUALITY BY DESIGN - BENEFITS & CHALLENGES	06/07/2020
	**Mr. Imran Ali** Senior Vice President & Country Head, Covance Drug Development, India	DRUG DEVELOPMENT OVERVIEW AND PROSPECTS FOR PHARMACEUTICAL	14/07/2020
	**Dr. Ananya Chakraborty** Professor & HOD, Pharmacology, Vydehi Institute of Medical Sciences & Research Center, Bengaluru.	STATUS OF VACCINATION FOR COVID - 19	18/07/2020

PHARMACONVERSE WEBINAR SERIES

GUEST SPEAKER	SPEAKER DETAILS	TOPIC DELIVERED	CONDUCTED ON
	**Dr. Amit Asthana** Principal Scientist - CSIR-CCMB, Hyderabad.	FABRICATION OF PAPER BASED DEVICE & ITS BIOMEDICAL APPLICATIONS	25/07/2020
	**Dr. Sudeendra Bhat** Professor of Pharmaceutics & Controller of Examination, JSS Academy of Higher Education & Research	AN OVERVIEW OF INTELLECTUAL PROPERTY RIGHTS	04/08/2020
	**Mr. Vinay D Joshi** Operational Excellence Consultant, Pune.	IMPORTANCE OF OPERATIONAL EXCELLENCE IN PHARMA ORGANIZATION	17/08/2020
	**Mr. Atul Kumar Nasa** Head of Office, Controlling and Licensing Authority, Deputy Drug Controller, Drugs Control Department, Govt. of NCT, Delhi.	ROLE OF PHARMACISTS IN PREVENTING DRUG ABUSE	19/08/2020

INSIGHTS OF WEBINARS

ASWATHY SANAL <asakar321@gmail.com> Sat, Jul 25, 2020 at 6:45 PM
To: mlrip@mlrinstitutions.ac.in

Thanks to the respected team for organizing such an informative and knowledgable session and clearing doubts in a very understandable manner.

Sharath Kondra <sharath.cherry24@gmail.com> Sat, Jul 25, 2020 at 4:01 PM
To: mlrip@mlrinstitutions.ac.in

Tq u somuch for conducting this webinar . It's very informative and knowledgeable.It craetes a new idea for upcoming researchers.
Once again tq u somuch.

AMEERA RASHEED <ameerarasheed12498@gmail.com> Wed, Aug 19, 2020 at 6:24 PM
To: mlrip@mlrinstitutions.ac.in

One of the most valuable and informativeseminar I have ever attended. Thank you for organizing and a very special thanks to the great Speaker

About MLRIP

VISION To be an educational institute of par excellence and produce competent pharmacy professionals to serve the community through research and the ever-increasing needs of Industry.

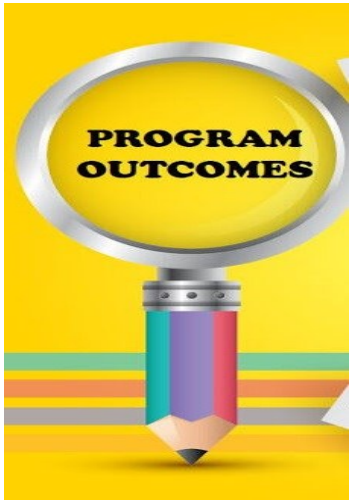
MISSION

1. Imparting quality education and innovative research for various career opportunities.
2. Creating conducive academic environment to produce competent pharmacy professionals.
3. Indoctrination of students adorned with high human values and make them aware of their responsibility as health care professionals.

Program Educational Objectives (PEO)

PEO 1: To produce graduates with sound theoretical knowledge and technical skills required for their career opportunities in various domains.
PEO 2: To incite the students towards research and to address the challenges with their innovative contributions for the benefit of the mankind.
PEO 3: To instill the essence of professionalism, ethical commitment to become a health care professional with sound integrity and adherence to the core human values in the service of the society.

1. **Pharmacy Knowledge:** Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.



2. **Planning Abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.

3. **Problem analysis:** Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.

4. **Modern tool usage:** Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.

5. **Leadership skills:** Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well-being.

6. Professional Identity: Understand, analyze and communicate the value of their professional roles in society (e.g., health care professionals, promoters of health, educators, managers, employers, employees).

7. **Pharmaceutical Ethics:** Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.

8. **Communication:** Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions.

9. **The Pharmacist and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.

10. **Environment and sustainability:** Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

11. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.