



## Sri Marri Laxman Reddy

**Founder & 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.

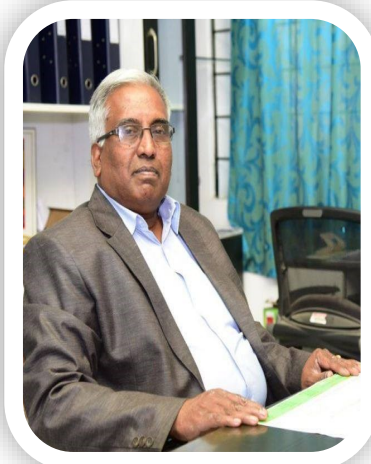
## Sri Marri Rajashekar Reddy

**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

A decade is truly a short span for any organization to measure its progress. However our MLR institute of Pharmacy has made rapid strides on the path of progress to transform into an institute of academic excellence. During this journey, we had many achievements, accomplishments recognitions, appreciations and captured memories of several events. We have made an attempt to record all these impressions in the form of a news letter christened as "*PharmaScout*" with a tag line official e-mag of MLRIP. Besides, the objective of this news letter is to showcase the talents of our students, staff and researchers and also highlighting the professional outlook

by contributions from eminent personalities from medical, clinical research, pharma industry, regulating authorities as well as academicians.

### MLR INSTITUTE OF PHARMACY

Approved by AICTE & PCI, New Delhi  
Affiliated to JNTU, Hyderabad  
Dundigal (V), Gandimaisamma(M)  
Medchal Dt, Hyderabad—500043

*"Strive not to be a success, but rather to be of value."*

— Albert Einstein

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# About MLRJP

## 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.

## VISION

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.

## PROGRAMME EDUCATIONAL OBJECTIVES (PEO's)

**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.

## PROGRAMME OUTCOMES

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.

## RECENTLY APPROVED DRUGS - FDA

S.N O	DRUG NAME	ACTIVE INGREDIENT	STRENGTH	DOSAGE FORM/ROUTE	APPROVAL DATE	MARKETING STATUS	FDA-APPROVED USE ON APPROVAL DATE
01	Erleada	apalutamide	60mg	Tablet; Oral	2/14/18	Prescription	To treat a certain type of prostate cancer using novel clinical trial endpoint
02	Symdeko	tezacaftor; ivacaftor	100; 150mg	Tablet; Oral	2/13/18	Prescription	To treat cystic fibrosis in patients age 12 years and older
03	Biktarvy	Bictegravir, Embitcitabine Tenofovir Alafenamide	50mg; 200mg; 25mg	Tablet; Oral	2/7/18	Prescription	To treat infection in adults who have no antiretroviral treatment history or to replace the current antiretroviral regimen
04	Lutathera	Lutetium dotatate  Lu 177	10mCi/ ml	Solution; iv infusion	1/26/18	Prescription	To treat a type of cancer that affects the pancreas or gastrointestinal tract called gastroenteropancreatic neuroendocrine tumors (GEP-NETs).

Sunitha, Mrs. Susmitha Priyadarshini

## Pharma#Throwback

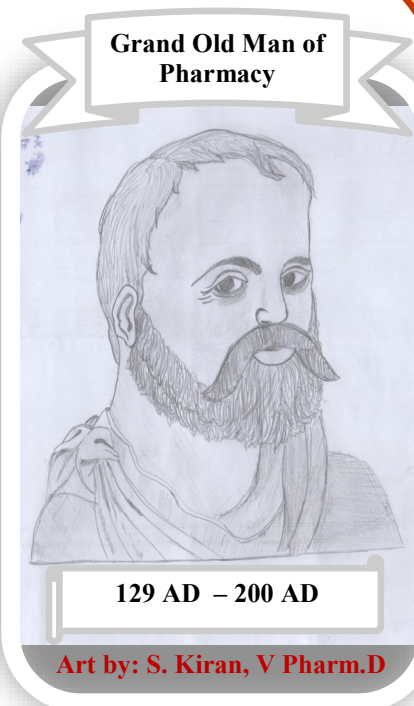
GALEN  
(THE GRAND OLD MAN OF PHARMACY)

*Aelius Galenus* or *Claudius Galenus* - often Anglicized as Galen and better known as Galen of Pergamon (Turkey). Galen was a famous Greek physician, surgeon, philosopher, writer and he became the most famous doctor in the Roman Empire.

In pharmacy, Galen left us his very long list of vegetable preparations, or simples, and thereby unwittingly engraved his name permanently in our roster of manufacturing pharmacists.

Galen's most famous medicinal formula was *Theriac*, an herbal jam or electuary with some 64 different ingredients that was a virtual panacea or cure-all for many diseases, and an antidote to many poisons. Theriac's use and manufacture continued until the late 19th century. Since Venice was a key center for its manufacture, it is sometimes called *Theriac Venezian* or *Venice Treacle*.

*Galenicals* – the world famous preparations (where no chemical reactions are involved) are named after him. He was adept in the use of earths or clays and the fumes of minerals, especially, according to LaWall, of orpiment. In medical practice – he was the first person to identify *Urine form in kidney* and difference between *Venous* (dark) blood and *Arterial* (bright) blood, performed *Cataracts eye surgery*, identified 7 *Cranial Nerves* and *Heart* have four valves which pumps blood, first to demonstrate that the Larynx generates the voice.



Dontham Sreelu, Dr. C. Suhas Reddy

# Student's corner

## ARTIFICIAL PANCREAS DEVICE SYSTEM FOR TYPE 1 DIABETES MELLITUS

V. Prudhvi Sai Kumar, P. Siva Krishna Kanth, Pharm. D Intern.

The pancreas is a pale grey long flattened gland, situated in the epigastric and left hypochondriac regions of the abdominal cavity. It functions as both exocrine and endocrine gland by synthesizing and secreting different types of digestive enzymes which helps in digestion and insulin, glucagon & somatostatin. Working together by influencing each other function, insulin and glucagon maintains the glucose homeostasis in human body.

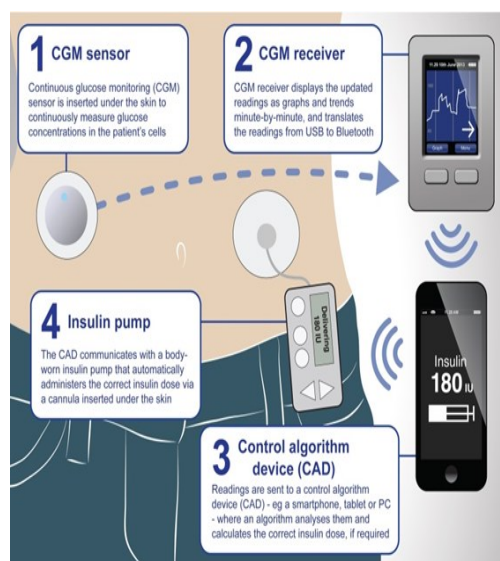
Patients with Type 1 Diabetes Mellitus (T 1 DM) and some patients with Type 2 Diabetes Mellitus (T 2 DM) receive insulin, and occasionally glucagon, to regulate their blood glucose, which is critical to lower their risk of long-term complications. Currently, managing T 1 DM is a never-ending, difficult chore because the body often defies even the most vigilant efforts to keep blood sugar at normal levels. As a result, even sleeping can be anxiety filled for people with T 1 DM, because that is often when dangerous low-blood sugar episodes occur. For this, many patients must vigilantly test blood glucose with a glucose meter, calculate insulin doses, and administer necessary insulin doses with a needle or insulin infusion pump to lower blood glucose. Glucagon may be injected in an emergency to treat severe low blood glucose. Some patients benefit from additional monitoring with a continuous glucose monitoring system.

### ARTIFICIAL PANCREAS DEVICE SYSTEM (APDS):

**The Artificial Pancreas Device System (An Autonomous System for Glycemic Control)** is a system of devices that closely mimics the glucose regulating function of a healthy pancreas, contains different parts like **Continuous Glucose**

**Monitor (CGM), Blood Glucose Device (BGD), Control algorithm, Insulin pump,** monitor blood glucose levels around the clock and automatically provide the right amount of insulin, and potentially other blood sugar stabilizing hormones at the right time. Three main APDS being worked by researchers are as follows:

The most widely tested artificial pancreas is a '**closed-loop insulin delivery system**', also referred to as a **closed**



**loop artificial pancreas.** Dr. Roman Hovorka at the University of Cambridge has generated a first-generation artificial pancreas prototype and evaluated its ability to improve blood glucose control at home and reduce the risk of overnight hypos in adults with Type 1 diabetes. He observed improvement in the time, participants kept their blood glucose levels in a safe range, halving the time they spent with low blood glucose levels and reducing the risk of both short and long-term complications in his three studies conducted during 2011 & 2014.

**Medtronic**, a biopharmaceutical company, is among the other research teams pursuing closed-loop insulin delivery. It launched **MiniMed 640G** artificial pancreas in the UK in March 2015 and re-

leased data in September 2016, showing positive results from their hybrid closed-loop system.

Dr. Edward Damiano by seeing his son suffering with T 1 DM, along with his colleagues spent most of the previous decade and introduced the world to the **iLet** (name iLet – adapted from islet cells in the pancreas), a **Bionic Pancreas** in July 2015. According to Damiano, it solves four of the leading concerns in type 1 diabetes management: bringing average glucose levels down to levels that would stave off long-term complications; controlling hypoglycemia, preventing mild hypos and eradicating severe hypos; unburdening people from the stress of taking care of their diabetes; and freeing people from the emotional stress of the fear of hypos and long-term complications.

Researchers from De Montfort University developed an **implantable insulin delivery device** which features a gel which releases insulin based on the changes in blood glucose levels. The implantable system could be refilled with insulin on a regular basis.

As APDS technology advances, these systems will become better and better at predicting blood-sugar changes and providing tightly controlled insulin dosing that virtually eliminates hyperglycemic and hypoglycemic episodes. APDS systems are on the road to becoming the most revolutionary advance in diabetes care since the discovery of insulin.

### References:

1. <https://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/HomeHealthandConsumer/ConsumerProducts/ArtificialPancreas/ucm259548.htm>
2. <https://www.diabetes.org.uk/research/research-round-up/research-spotlight/research-spotlight-the-artificial-pancreas>

# Indigenous Space

## Folk Medicine on Anxiety

Sowmya, V. Lenin Babu, M.pharm, (Ph.D).

**Anxiety** is a complex progressive behavioral and physiological alteration of the organism, which ultimately leads to wide variety of central nervous system (CNS) disorders, if remain untreated. In addition to individual genetic factors, external influences such as nutrition, smoking, alcohol, socioeconomic status, environmental conditions etc., can strongly contribute to its anticipated appearance.

This is increasingly recognized as a highly prevalent and chronic disorder with onset during the teenage years, with an incidence of 18.1%

and a lifetime prevalence of 28.8%. The disorder is associated with significant disability (including educational and occupational) which has a negative impact on the quality of life.

Pharmacotherapeutic approaches for the management of anxiety disorders include psychotropic drugs, but these agents are limited by their side-effect profile, the need for dietary precautions, and drug interactions. Benzodiazepines are the major class of compounds used in anxiety and they have remained the most commonly prescribed treatment for anxiety, despite the important unwanted side effects that they produce such as

sedation, muscle relaxation, ataxia, amnesia, ethanol and barbiturate potentiation and tolerance.

Various types of herbal medicines have been used as anxiolytic drugs in different parts of the world. Self-administration of herbal medicines is among the most popular of the alternative therapies that also include massage therapy, megavitamins, and homeopathy. Plants have long been used to treat central nervous system (CNS) disorders. Folk medicines have particular values, for example, plants that “calm down”, tranquilize, and raise mood, have been summarized below;

S.No	Botanical Name	Family	Common name	Major chemical constituents	Ayurvedic recommendations
1	<i>Allium cepa</i>	Liliaceae	Onion	Dialkenyl sulfides	Tea from its seeds is beneficial in sleeplessness.
2	<i>Centella asiatica</i>	Apiaceae	Indian penny wort	Asiaticosides	Its powder is mixed with honey or pepper or cow's "ghee" (purified butter) and taken to ease in anxiety.
3	<i>Citrus aurantifolia</i>	Rutaceae	Lemon	Bergamottin, bergapten	Lemon juice is given to the patient of anxiety to regularize the heart beat.
4	<i>Datura metel</i>	Solanaceae	Thorn apple	Hyoscyne, hyocyanine	Its seeds are ground with black pepper and given for treating psychosis
5	<i>Convolvulus microphyllus</i>	Convolvulaceae	Shankhapushpi	Convolute, convolamine	Its juice with honey cures the epilepsy, psychosis and insanity. Shade dried powder alone or with "bach" or Indian pennywort strengthens the mind.

### Important days to remember

April 7<sup>th</sup> – World Health Day

April 24<sup>th</sup> to April 30<sup>th</sup> – World Immunization Week.

April 25<sup>th</sup> – World Malaria Day.

May 2<sup>nd</sup> – World Asthma Day.

May 8<sup>th</sup> – World Thalassemia Day

May 17<sup>th</sup> – World Hypertension Day

May 30<sup>th</sup> – World Multiple Sclerosis (MS) Day

May 31<sup>st</sup> – World No Tobacco Day

June 1<sup>st</sup> – World Milk Day

June 5<sup>th</sup> – World Environment Day

June 14<sup>th</sup> – World Blood Donor Day

June 19<sup>th</sup> – World Sickle Cell Day

June 26<sup>th</sup> – International Day against Drug abuse

July 28<sup>th</sup> – World Hepatitis Day

Dr. Sulochana, Asst. Professor

# Medical Camp

On the occasion of 56<sup>th</sup> National Pharmacy Week, Department of Pharmacy Practice, MLRIP had organized a free medical camp and distributed medicines in association with **Landmark Hospitals, Maxivision Super speciality Eye Hospitals and Clove Dental Hospital** at Village Panchayath Office, Dundigal.



Awareness sessions in Jilla Parishad high school, Dundigal were conducted by Pharm. D students on various conditions such as **CPR technique for Heart attack, preventive measures for Dengue, General Hygiene and Women hygiene practices**. Performed **blood grouping test** for 8<sup>th</sup>, 9<sup>th</sup> & 10<sup>th</sup> class students. Donated a number of books to the high school library with an intention of inculcating the habit of reading books as well as to improve and update their knowledge of rural and semi -urban students.



# Industrial Visits



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# Cultural fests





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Ph: +91 -40-2304 1900/4021 5094

**K. Ramaji Reddy**  
ramanijreddy@startechlabs.com  
Mobile No: +91 9700971895

**Koneru Jagan Mohan Rao**  
jmrkoneru@startechlabs.com  
Mobile No. +91 8886976767