



# BHARAT INSTITUTE OF TECHNOLOGY

Mangalpally, Ibrahimpatnam, R.R. District, PIN-501510

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**Students Activities:** On the occasion of “World Pharmacy Day” which is observed on 25<sup>th</sup> September, Bharat Institute of Technology has celebrated the event by conducting the awareness camping, poster presentations and model presentations.



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**Oral Presentation:** Oral presentation was given by students from B. Pharm, PharmD, PharmD (PB) and M. Pharm students. It provided an opportunity for the students to practice their skill which help them to effectively work in their respective career. The winners were appreciated by the certificate and mementos.



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By Chikky-z



  
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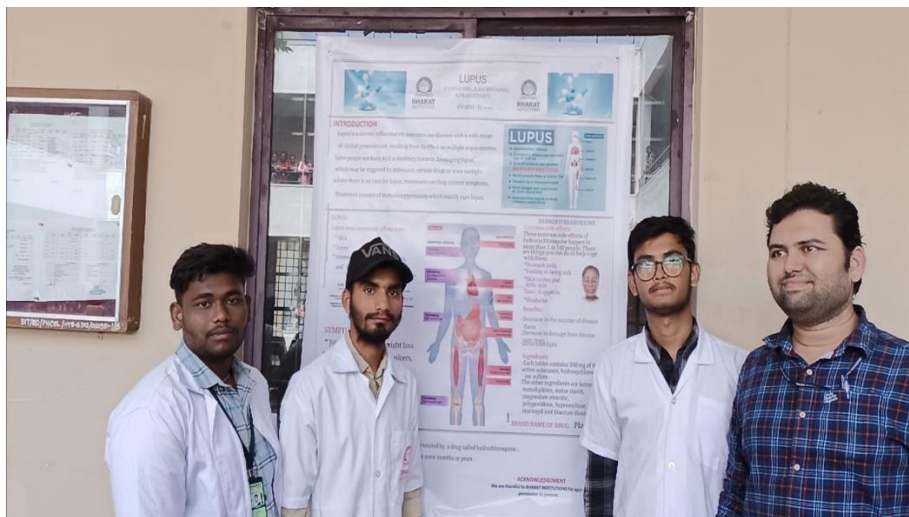


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**Poster presentation:** Teaching learning is a process which is practiced by the outcome-based learning. Bharat Institute of Technology conducts many events of poster presentation both in college and national level. Students from various departments such as B. Pharmacy, Pharm D, PharmD (PB) and M. Pharm students participate to upgrade their knowledge and skills.



*A. Qureshi*  
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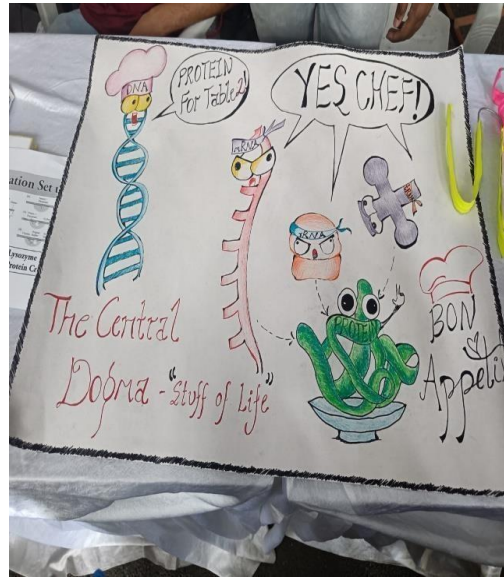


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**Scientific Model:** All the students were encouraged to participate in Scientific Model Making and Working Model where many models was made by the students such as the structure of neuron, anatomy of cell, anatomy and physiology of uterus and many organ systems in the body.



  
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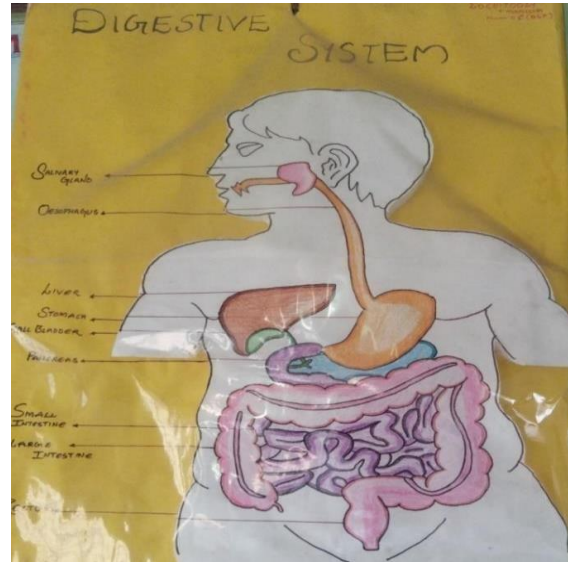
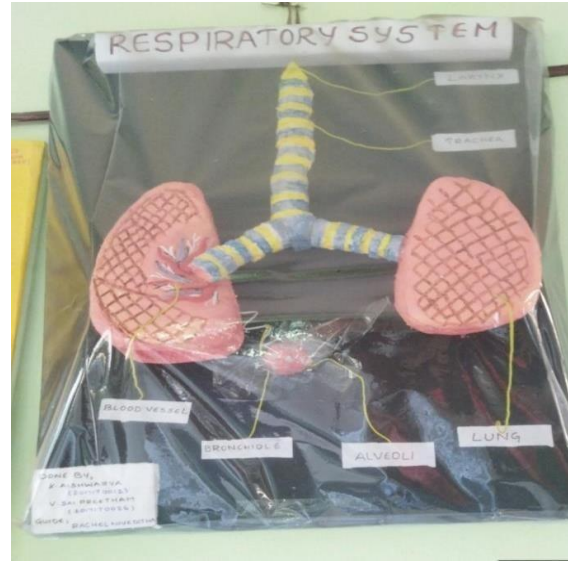




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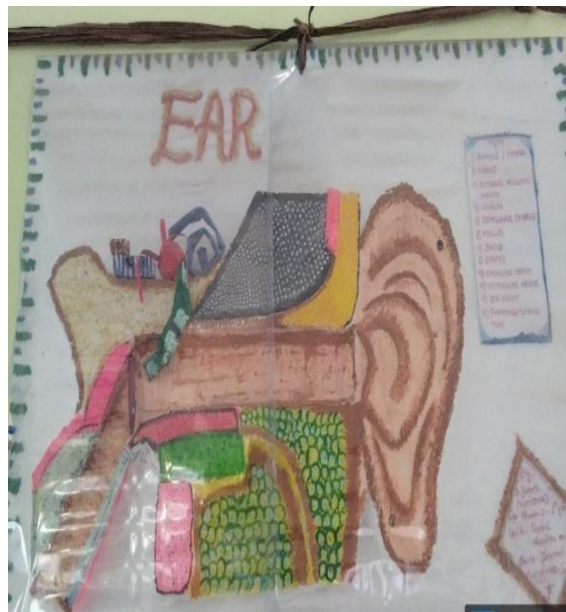
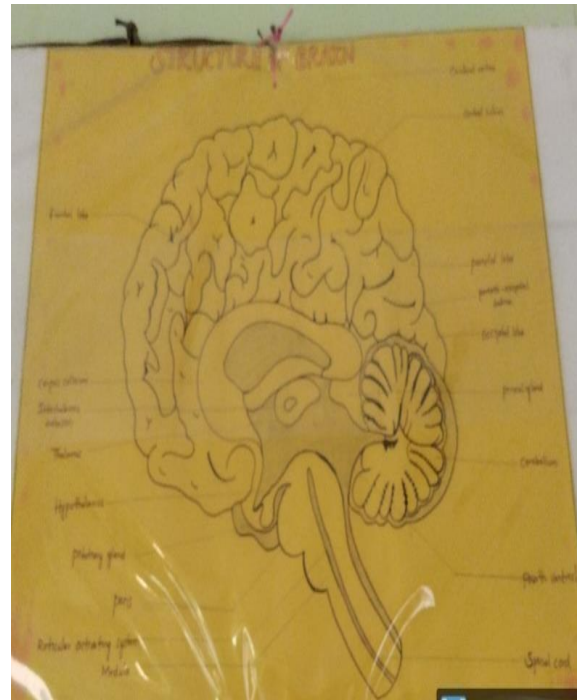
  
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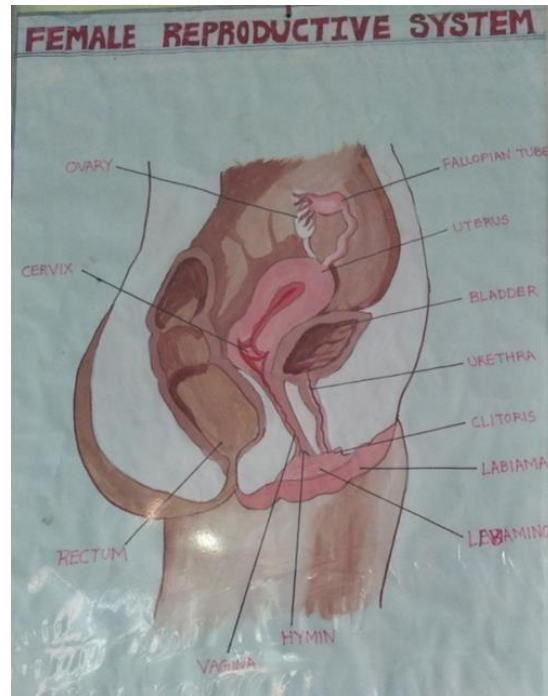




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**Medical camping:** On the occasion of World Pneumonia Day which is held on November 12 PharmD students participated in the awareness camping under the guidance of Ms. JE Rachel Nivedita (Assistant Professor) and Ms. Nahid (Assistant Professor) in Koheda Village which is located 11.2Km away from Mangalpally.



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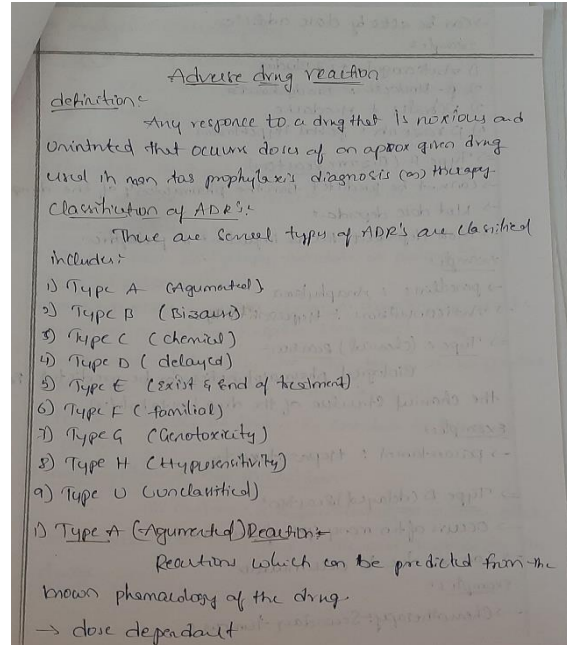
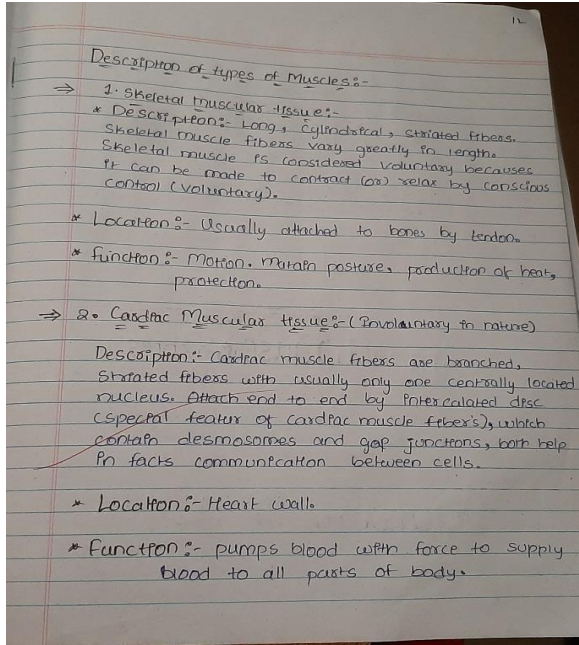


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**Assignment:** Assignments are given to the students as part of the curriculum. MID marks are for total 25 marks in which 5 marks is given for the students as an Internal Assessment. There will be two MIDS in each semester for B.Pharmacy.



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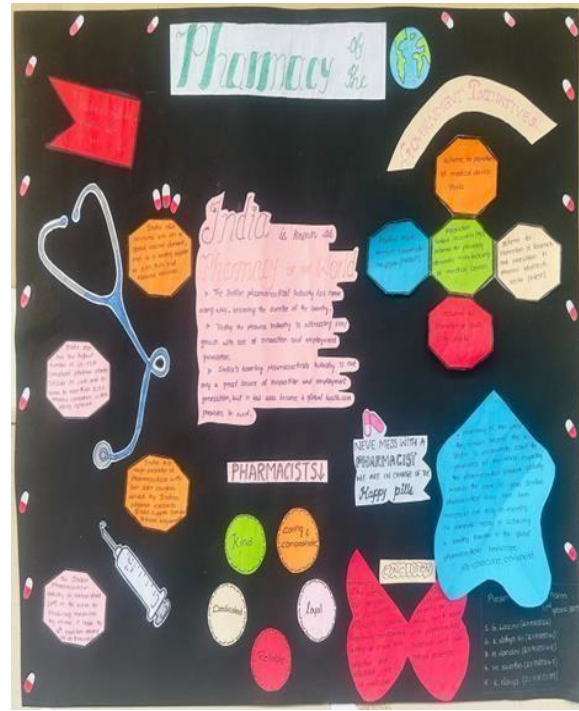
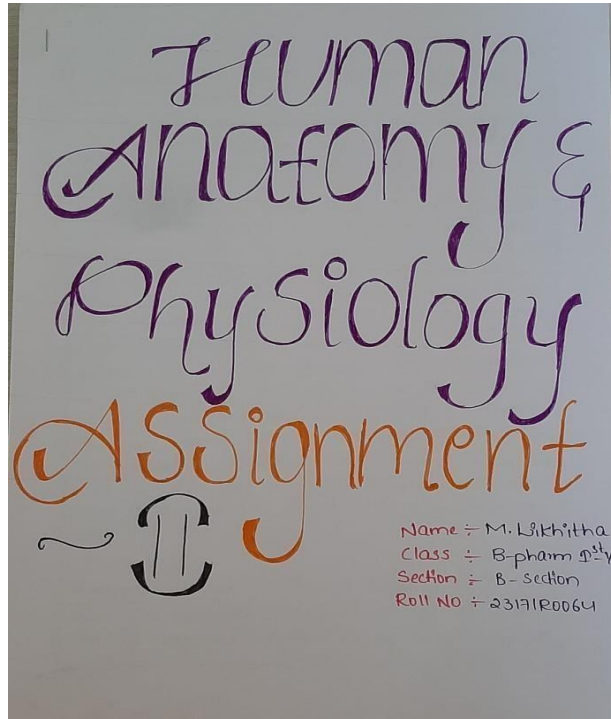




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Eosinophils = allergic disorder, skin disease, cholera, scarlet fever, tumour of ovary and uterus

Monocytes = TB, monocytes in children, whooped cough, TB

Neutrophils = pneumonic fever, BA, Gout, LE, Gangrene

Thrombocytes = TB, cirrhosis, Acute haemorrhage anemia

Haemoglobin  
 ESR  
 clotting time

URINE EXAMINATION

Abnormal constituent	Disorder
→ Sugar	DM, Endocrine disorder
→ protein	↓ in kidney damage
→ Normal	albumin present in uraemia
→ Bileubin	DM, starvation ketosis
→ ketone body	Inflammation of urinary organ
→ blood cells	

Eosinophils = allergic disorder, skin disease, cholera, scarlet fever, tumour of ovary and uterus

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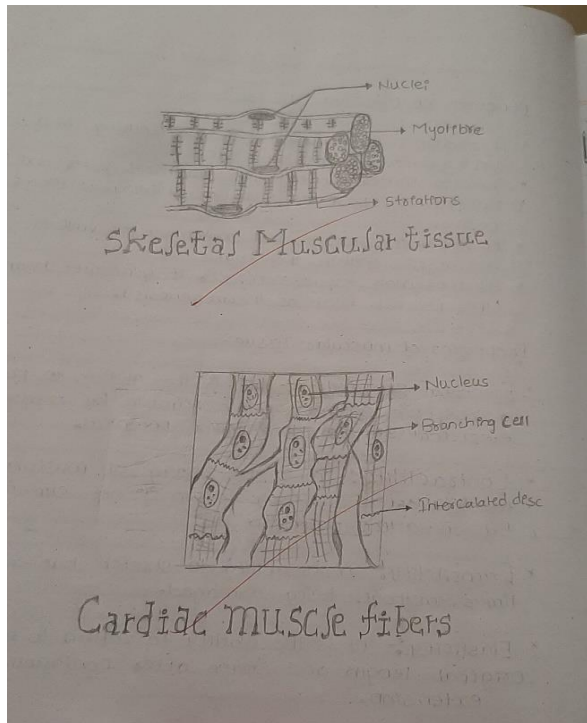
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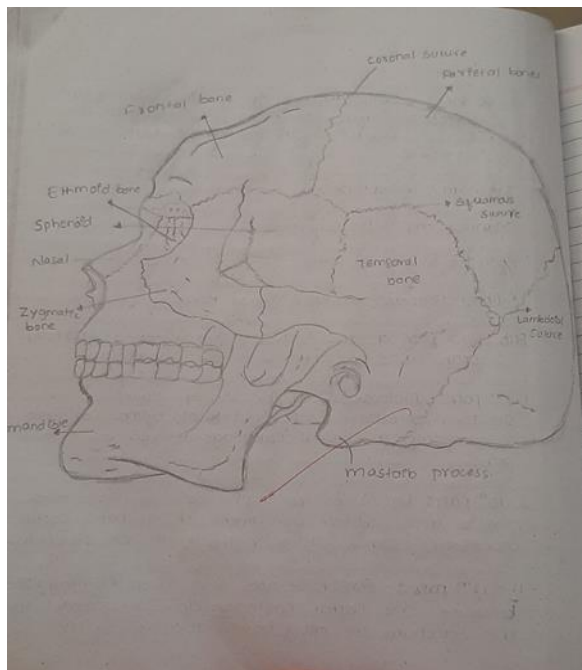
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The vertebral column / spinal backbone / spinal column:-  
 The vertebral column consists of bone and connective tissue; the spinal cord that it surrounds and protects consists of nervous and connective tissues. The total number of vertebrae during early development is 33. As a child grows, several vertebrae in the sacral and coccygeal regions fuse. As a result, the adult vertebral column typically contains 26 vertebrae.

- \* 7 Cervical vertebrae:- Are in the neck region. Movable in nature. Are smaller than all other vertebrae except those that form the coccyx.
- \* 12 Thoracic vertebrae:- Are posterior to the. Movable in nature. Larger and stronger than cervical vertebrae.
- \* 5 Lumbar vertebrae:- Support the lower back. Movable in nature. Largest and strongest of the unfused bones in the vertebral column.
- \* 1 Sacrum:- Consists of five fused sacral vertebrae. Immobile in nature. Triangular base formed by the union of five sacral vertebrae.



Eosinophils :- Allergic disorder, skin diseases, cholera, scarlet fever, tumour of ovary and uterus

Monocytes :- TB, monocytes in children, leprosy, cough, TB

Neutrophils :- Pneumonia, fever, RA, Gout, LE, Gangrene

Thrombocytes :- TB, cirrhosis, acute haemorrhagic anaemia

Haemoglobin  
 ESR  
 clotting time

URINE EXAMINATION

Abnormal constituent	Disorder
→ Sugar	DM, Endocrine disorder
→ protein	In kidney damage
→ Normal	albumin present in urine
→ Bilirubin	jaundice
→ ketone bodies	DM, starvation ketosis
→ blood cells	Inflammation of urinary organ

  
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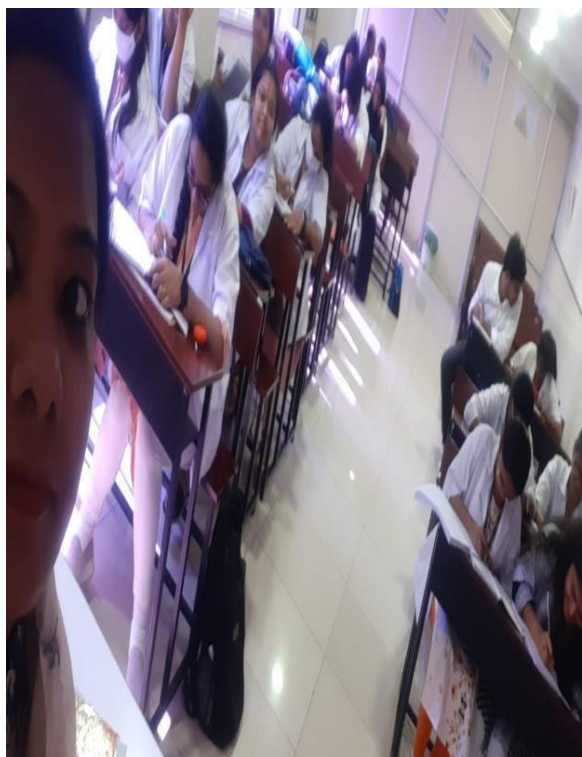


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**Case study:** Pharm D students are playing role in bridging the gap between the physician and the patient by providing various clinical services using their clinical knowledge and practice skills. Case studies are written descriptions of an intensive study about a patient's real-life problems or pre- defined case scenarios. The details of the patient present history, past history, social history, allergic history, etc. which are encountered during the ward round and patient interaction are noted. The students are actively involved in the analysis of the collected cases, reviewing subjective-objective parameters of the patient, analyzing the provisional diagnosis, differential diagnosis, and comparing the treatment chart with given standard treatment guidelines. The case study learning will primarily help the students to develop skills of critical thinking, decision making, problem-based learning to generate an in-depth understanding of a complex issue in real life context, to rule out the possible drug- drug interactions, drug-food interactions, drug interventions cost benefit analysis and ADR's, the use of case studies and other clinical activities will enhance the development of essential skills necessary to practice in any setting of the health care system, manage care pharmacy, community pharmacy, hospital pharmacy.



*M. Q. N. S.*  
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**Case Collection:** Case summary reports are an efficient way to see a patient's care experience with all its supporting documentation.



**Case Study:** A case study is a research approach that is used to generate an in-depth, multi-faceted understanding of a complex issue in its real-life context.



  
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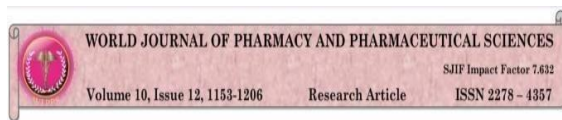


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**Projects:** All the B.Pharm, Pharm D, PharmD (PB) and M.Pharm students are encouraged to go for the publications in a good journals which will encourage the students to carry more research work in the field of pharmacy.



## INVESTIGATION OF ANTIDEPRESSANTS ACTIVITY OF NARDOSTACHYS JATAMANSI

JE Rachel Nivedita\* and Majid Hussain

India.

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Revised on 17 Oct. 2021,  
Accepted on 07 Nov. 2021  
DOI: 10.3959/wjpps202112-20612

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Rachel Nivedita  
India.

### INTRODUCTION

Medicinal plants are various plants thought by some to have medicinal properties, but few plants or their phytochemical constituents have been proven by rigorous science or approved by regulatory agencies such as the United States Food and Drug Administration or European Food Safety Authority to have medicinal effects. World Health Organization (WHO) has provided a definition of medicinal plants, that is "A medicinal plant is any plant which, in one or more of its organs, contains substances that can be used for therapeutic purposes or which are precursors for synthesis of useful drugs." World Health Organization (WHO) reported that 80% of the world's population depends on medicinal plants for their primary health care. In the Plant Kingdom, Medicinal plants form the largest single grouping of plants. It is estimated that 30,000 species worldwide fall in this group, of which around 33% are trees. Plants are known to be the source of many chemical compounds. Medicinal plants were used by people of ancient cultures without knowledge of their active ingredients. The common practice of taking crude extract orally is laden with hazards as the extracts may contain some toxic constituents. There is an ever increasing need to limit toxic clinical drugs. In modern times, the active ingredients and curative actions of medicinal plants were first investigated through the use of European Scientific methods. The most important ingredients present in plant communities turn out to be alkaloids, terpenoids, steroids, phenols glycosides and tannins.

The information obtained from extracts of medicinal plants makes pharmacological studies possible. The mode of action of plants producing therapeutic effects can also be better investigated if the active ingredients are characterized. Infectious diseases are the leading cause of death worldwide. The clinical efficiency of many existing antibiotics is being threatened by the emergence of multidrug resistant pathogens. Bacterial pathogens have

M.Pharmacy				
Department of Pharmacology				
S.No	Hall ticket Number	Name of the student	Name of the Guide	Signature
1	21171S0101	Rakesh	Ms. Rachel	
2	21171S0102	Ganesh	Dr. Bhaskar	
3	21171S0103	Mounika	Mrs. Haritha	
4	21171S0104	Shiva	Dr. Nazemooon	
5	21171S0105	Bhavana	Dr. Namratha	
6	21171S0106	Meghana	Dr. Nikath	
7	21171S0107	Bhargavi	Mrs. Haritha	
8	21171S0108	Priyanandini	Ms. Rachel	
9	21171S0109	Deepika	Dr. Asra	
10	21171S0110	Bindu	Dr. Arifa	



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ed numerous defense mechanisms against antimicrobial agents and resistance to old and newly produced drug is on the rise. The increasing failure of chemotherapeutics and antibiotic resistance exhibited by pathogenic microbial infectious agents has led to the screening of several medicinal plants for their potential antimicrobial activity.

### 1.1.1 History of plants in medicine<sup>[7]</sup>

The earliest known medical document is a 4000-year-old Sumerian clay tablet that recorded plant remedies for various illnesses. The ancient Egyptian Ebers papyrus from 3500 year ago lists hundreds of remedies. The Pan-tsoo contains thousands of herbal cures attributed to Shenmung, China's legendary emperor who lived 4500 years ago.

The beginning of the Renaissance saw a revival of herbalism, the identification of medicinally useful plants. This coupled with the invention of the printing press in 1450 ushered in the Age of Herbs. Many of the herbs were richly illustrated, all of them focused on the medicinal uses of plants, but also included much misinformation and superstition.

lobed appearance of liverworts suggests that it should be used to treat liver complaints; the "lumanoid" form of mandrake root suggests that it should be used to promote male virility and ensure conception.

Many of the remedies employed by the herbalists provided effective treatments. Studies of foxglove for the treatment of dropsy (congestive heart failure) set the standard for pharmaceutical chemistry. In the 19th century, scientists began purifying the active extracts from medicinal plants (e.g. the isolation of morphine from the opium poppy). Advances in the

+Ve: indicates the presence of compounds.  
-Ve: indicates the absence of compounds

Antidepressant activity of nardostachys jatamansi Forced swim test Antidepressant activity of aqueous and alcohol solvent soluble fraction of the rhizomes of *Nardostachys jatamansi* Studied at a dose of 200 mg/Kg, using Forced Swim Test experiment

The anti-depressant activity of AQENJ and ALENJ was assessed using Forced Swimming Test in Swiss albino rats were illustrated in Table No. It was observed that AQENJ and ALENJ at a dose of 200mg/kg exhibited significant reduction in immobility time when compared to control in dose dependent manner. Similarly the animals treated with diazepam (10mg/kg) as expected showed significant decrease in immobility time.

Table Effect of extracts of *Nardostachys jatamansi* on Anti-depressant activity.

S.No	Group	Dose (p.p. mg/kg)	Immobility period Before	Immobility period After	% change in activity
1	Control	5ml/kg	134	185	26.48%
2	Diazepam	10mg/kg	185	67	62.0%
3	AQENJ	200mg/kg	179	67	62.0%
4	ALENJ	200mg/kg	305	195	36.06%

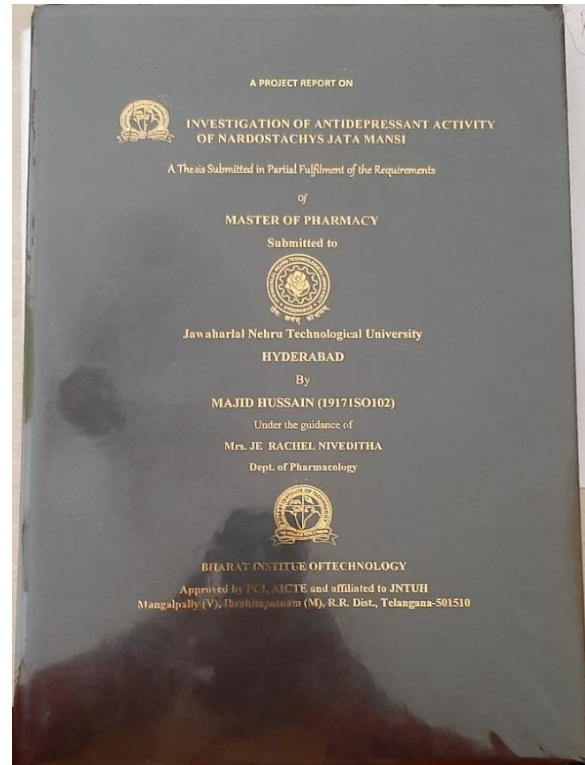
The results are expressed as means  $\pm$  SEM. Differences in mean values between groups were analyzed by a one-way analysis of variance (ANOVA). Statistical significance was assessed as  $p < 0.05$ .

80.00P  
60.00P  
40.00P  
20.00P  
0.00K

%change in Activity Diazepam (std) AQENJ Axis Title ALENJ

%change in Activity

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### Tail Suspension Test

Antidepressant activity of aqueous and alcohol solvent soluble fraction of the rhizomes of *Nardostachys jatamansi* studied at a dose of 200 mg/Kg, using Forced Swim Test experiment.

In tail suspension test, the alcoholic and aqueous extracts of rhizomes of *Nardostachys jatamansi* at a dose of 200 mg/kg i.p. significantly decreased the immobility time. The magnitude of the antidepressant effects of 200 mg/kg i.p. of alcoholic and aqueous rhizomes of *Nardostachys jatamansi* was comparable to that of Diazepam 10 mg/kg i.p. (Table --)

Effect of Ethanol and Aqueous Extracts of *Nardostachys jatamansi* Rhizomes on Tail Suspension Test in Mice at Different Time Intervals

S.No	Treatment	Dose (mg/kg)	Duration Before	Duration After	% change in activity
1	Control	10	40	120	83.33%
2	Standard	10	20	180	77.8%
3	AQEDH	200	40	167	67.7%
4	ALEFDH	200	54	167	67.7%

%change in activity



Graph-1: Effect of extracts of *Nardostachys jatamansi* on Anti-depressant activity.

### DISCUSSION

#### 1. Phytochemical analysis

Preliminary phytochemical studies confirmed the presence of alkaloids, carbohydrates, proteins, steroids, sterols, tannins, flavonoids, gums and mucilage, glycosides, saponins and terpenes in AQNJ, alkaloids, carbohydrates, steroids, sterols, tannins, flavonoids, gums and mucilage, glycosides and terpenes in ALENJ.

#### 2. Behavioural activities

##### 2.1 Anti-depressant activity

##### Tail suspension test

Open field behavioral model was used to study exploratory and locomotor activity in this investigation. Reported studies have shown that stress factors account for the decreases in mobility and functional responses against novel environment. The purpose of including this test was to assess the general activity of the animals after performing EST. The results observed in the open field test showed that i.p. administration of aqueous and alcoholic extracts of *Nardostachys jatamansi* (200 mg/kg) did not significantly increase the locomotor activity in unstressed groups of rats as compared with their control groups. However, aqueous and alcoholic *Nardostachys jatamansi* administered rats following the exposure to repeated restraint stress showed significant ( $p < 0.01$ ) increases in locomotor / exploratory activity on an open field





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Int. J. Pharm. Investigation, 2024, 14(1):146-150  
<https://www.ijpharm.in>

Original Article

## Effectiveness and Safety of Levonorgestrel Intrauterine Device in Abnormal Uterine Bleeding, Adenomyosis and Perimenopausal Bleeding Patients

Aayushi Jaiswal<sup>1</sup>, Mudumba Srivashini<sup>2</sup>, Tipuna Sundari<sup>3</sup>, Sirisha Sunkavalli<sup>4</sup>, Ranya Vandanasetti<sup>5</sup>, Shaheen Begum<sup>6</sup>, Arifa Begum SK<sup>7\*</sup>

<sup>1</sup>Department of Pharmacy, Bharat Institute of Technology, Mangalpally, Ibrahimpatnam, Hyderabad, Telangana, INDIA.  
<sup>2</sup>Department of Obstetrics and Gynecology, Krishna Institute of Medical Sciences, Secunderabad, Telangana, INDIA.  
<sup>3</sup>Department of Pharmacy, Institute of Pharmaceutical Technology, JNTU, Tirupati, Andhra Pradesh, INDIA.

**ABSTRACT**  
**Background:** The Levonorgestrel-releasing intrauterine system was inserted in patients with conditions like Abnormal Uterine Bleeding (AUB), adenomyosis and Perimenopausal Bleeding (PMB). This study aimed to find the effectiveness and safety of the Intrauterine device in AUB, adenomyosis and PMB. **Materials and Methods:** This observational study enrolled 100 patients with AUB, adenomyosis and PMB who had levonorgestrel IUD inserted for treatment between the years 2015 to 2022. The data has been collected from the Department of Obstetrics and Gynecology at Krishna Institute of Medical Sciences, Secunderabad and analyzed based on the institutional outcome scoring form. The post-insertion responses, expulsion rates and clinical outcomes towards IUD were observed in patients after insertion. **Results:** The majority of post-insertion responses showed a significant statistical P value of 0.05, which implies the effectiveness of IUD. This study resulted in a 90% positive clinical outcome which implies the high device retained. **Conclusion:** The levonorgestrel IUD showed significant positive clinical outcomes in patients with AUB, Adenomyosis and PMB with low expulsion rates and can be considered a good alternative for conservative management of AUB, Adenomyosis and perimenopausal bleeding.

**Keywords:** Intrauterine device, Abnormal uterine bleeding, Adenomyosis, Peri Menopausal Bleeding.

**INTRODUCTION**

The levonorgestrel-releasing Intrauterine Device (IUD) is used in the treatment of AUB and as LARC (Long-Acting Reversible Contraceptive). It is an intrauterine device that contains 52 mg of levonorgestrel (progestin), released at a range of 20 mg/day and after five years it is decreased to half of its original value. IUD is removed by the end of the fifth year and can be replaced with a new one if necessary. The intrauterine device is inserted into the endometrial cavity of the patient. The horizontal arms of the device are folded and will be placed in the applicator tube. It is gently implanted in the uterus after the tube is introduced into the cervical canal, strings will be trimmed so that they do not protrude too far into the vagina and the length of the string is recorded.

Cramping, dizziness, fainting, or a slower-than-normal heart rate may occur at the time of insertion.<sup>1,2</sup> This device is inserted in conditions like endometriosis, adenomyosis and heavy menstrual bleeding. This device is contraindicated for conditions like uterine abnormalities, pelvic inflammatory disease, abortion, postpartum endometritis, and acute cervicitis. The common side effects of this device include amenorrhea, bleeding or spotting between periods, heavy bleeding during the first few weeks after device insertion, abdominal and pelvic pain, headache, back pain, dizziness, nausea, tenderness of the breast and weight gain.<sup>3</sup> AUB is described as irregularities in the menstrual cycle involving frequency, regularity, duration and volume of flow outside the pregnancy. IUD is used in types of AUB like AUB-Endometrial Hyperplasia (AUB-E), AUB- Ovarulatory dysfunction (AUB-O), AUB-Adenomyoma (AUB-A), AUB-Adenomyosis (AUB-A1), Adenomyosis is a condition, in which the endometrium grows adjacent to the inner lining of the uterus, causing the uterine wall to grow in size causing heavy, painful, prolonged periods, and painful cramps.<sup>4</sup>

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### Acceptance Letter

Paper ID: SCIENCE NET\_06314

Dear Pranay Bandari, Shaheen Begum, R.K.Mutahar, Anu Vrat Sharma, Arifa Beum SK

On behalf of the planning committee of the World Congress on Medicinal Plants & Natural Products Research, we are very pleased to inform that your proposal "Design and Development of Novel Compound From Stephania Tetrandria Using In Silico Tools" has been accepted and that you are invited to attend our conference.

We would like to remind you that you have to register as a participant for the conference, which will be held on 21st-22nd November 2022 Fukuoka, Japan.

The conference website <https://sciencenet.co/event/registration.php?d=1685936> includes all up-to-date information about the conference, registration, full length paper submission, venue and contact details.

We hope to see you in Japan. If you have any questions, please contact the conference office at [conference@sciencenet.co](mailto:conference@sciencenet.co)

Regards,  
  
 Sreejesh A K  
 Program Manager  
 Mail id: [conference@sciencenet.co](mailto:conference@sciencenet.co)  
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Pharm. Investigations, 2023, 13(4):845-851  
<https://www.ijpharm.in>

Original Article

## Tetrandrine, an Effective Inhibitor of COVID-19 Main Protease (M<sup>pro</sup>): Insights from Molecular Docking and Dynamics Simulations

Arifa Begum SK<sup>1</sup>, Shaheen Begum<sup>2\*</sup>, Pranay Bandari<sup>3</sup>, Swapna B<sup>4</sup>, Maadhu Reddemma<sup>5</sup>

<sup>1</sup>Department of Chemistry, Bharat Institute of Technology, Mangalpally, Rangla Reddy, (M)TQ, Telangana, INDIA.  
<sup>2</sup>Department of Pharmaceutical Chemistry, Sri Padmanabha Vaidya Institute of Pharmacy, Tirupati, Andhra Pradesh, INDIA.  
<sup>3</sup>Department of Pharmaceutical Chemistry, Sevens Hills College of Pharmacy, Veerabrahmaram, Tirupati, Andhra Pradesh, INDIA.

**ABSTRACT**  
**Background:** Natural products emerged as potential lead molecules in the drug discovery paradigm. During COVID-19 pandemic, researchers explored several natural agents with antiviral activity. The objective of this present study is to predict inhibitors of important COVID-19 target from a set of potential candidates belonging to natural origin using molecular docking and dynamic simulation. **Materials and Methods:** In silico target multi-protease (M<sup>pro</sup>) (PDB ID: 6LU7) was selected for this purpose. Twenty natural agents were selected for molecular docking (Auto Dock vina v1.1.2). Molecular dynamic studies were performed using GROMACS, Maxwell and COMSOL. Among the selected natural products, tetrandrine, an isoprenoid alkaloid (C<sub>29</sub>H<sub>42</sub>O<sub>10</sub>), and remdesivir (7'-keto) with M<sup>pro</sup> (Rmp), the stability of the complex formed between M<sup>pro</sup> and tetrandrine was confirmed in molecular dynamic studies in silico. **Conclusion:** The present in silico investigation could lead to the development of tetrandrine as a potent COVID-19 inhibitor.

**Keywords:** M<sup>pro</sup>, Alkaloids, Molecular docking, Molecular dynamics, COVID-19.

**INTRODUCTION**

The word "corona" means crown. The series of crown-like spikes on the surface of the virus envelope the name Coronavirus which is known to cause flu-like symptoms including fever, cough, malaise, fatigue, sore throat, and pneumonia.<sup>1</sup> The highly pathogenic human coronavirus (HCoV) is SARS-CoV, MERS-CoV, and SARS-CoV-2. CoV exhibit similarities in the genome, morphological structure, and function of Structural (S), Nucleocapsid (N), and accessory proteins. The S protein, which is a glycoprotein, membrane and nucleocapsid proteins such as spike, envelope, membrane and nucleocapsid proteins (N, NP1, NP2) are a few well-validated targets to design and develop novel agents.<sup>2</sup>

The majority of the clinical signs and symptoms of CoV infections share a commonality that they differ in mortality rates, with COVID-19 being less compared to others. All these infections primarily target the lungs, but in severe form, the infection may spread to other vital organs such as the heart, liver, Gastrointestinal Tract (GIT), and kidney.<sup>3</sup>

The multi-organ manifestations of the three forms of coronavirus are displayed in Table 1. Both SARS-CoV and SARS-CoV-2 cause respiratory syndrome by binding strongly with Angiotensin-Converting Enzyme 2 (ACE2), present in the host organs. While interacting with the host targets, the spike glycoprotein of these viruses plays a crucial role. The M<sup>pro</sup> enzyme (main protease) contributes to the cleavage of polyproteins, and hence significant for viral replication. In the absence of specific treatment, antiviral agents (remdesivir, molnupiravir), antibiotics (azithromycin, macrolide antibiotics, paxlovid) and corticosteroids were extensively used to control the COVID-19 infection worldwide.<sup>4</sup>

Natural products are effective to treat several infections and fatal diseases caused by bacteria, virus and other parasites. Chalcones are precursors for flavonoids, isoflavonoids, and aurones. The majority of the bioactive chalcones are rich in phenolic functionality and exhibit significant antioxidant, potential antibacterial and antiviral activity by blocking the active Chalcones display antiviral activity by blocking the active site of crucial antiviral target enzymes such as topoisomerase II.

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184 International Journal of Pharmaceutical Investigation, Vol 13, Issue 4, Oct-Dec, 2023

## INSIGHTS ON ROLE OF POTENTIAL ANTIBIOTICS TO FIGHT COVID-19: A MOLECULAR DOCKING APPROACH

B.Pranay<sup>1\*</sup>, Arifa Begum SK<sup>2</sup>, Shaheen Begum<sup>3</sup>

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<sup>2</sup> Sri Padmanabha Vaidya Vaidya Institute of Pharmacy, Tirupati, Andhra Pradesh

**ABSTRACT**

**BACKGROUND:** Rapid spread of SARS-CoV-2 disease and the identification of effective therapeutic agents is a major challenge for clinicians nowadays. **AIM:** The present work was initiated with an objective a) To evaluate the COVID-19 inhibitory activity of potential antibiotics using *in silico* docking studies; b) Repurposing the existing antibiotics for the treatment of dreadful viral infections. **METHODOLOGY:** *In silico* docking studies were carried out using Swiss dock and recent version of Auto Dock 4, which has the basic principle of Lamarckian genetic algorithm. The important docking evaluation parameters such as binding energy and the interacting amino acids were determined for the selected ligands. The crystal structures of COVID-19, main protease (PDB ID: 6M03), nucleocapsid phosphoprotein dimerization C-terminal (PDB ID: 6YUN) and the spike like protein receptor binding domain (PDB ID: 2GHV) downloaded from protein data bank were used as the targets. In this perspective, all the ligands were prepared for the docking evaluation. Remdesivir, a reported drug to fight COVID-19 was used as the standard. **RESULTS & DISCUSSION:** The results showed that Rifampicin showed excellent binding energy comparable to the standard. These molecular docking analyses could lead to the further development to identify the potent inhibitors for the treatment of severe acute respiratory syndrome Coronavirus 2.

**KEYWORDS:** Severe acute respiratory syndrome Coronavirus 2, SARS-CoV-2-Molecular docking, Autodock, Antibiotics, COVID-19, Rifampicin

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Original Article

## Impact of Non-sedation in Gastrointestinal Conventional Endoscopy Practices in Outpatient Setup

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<sup>1</sup>Bharat Institute of Technology, JNTUH, Telangana, INDIA.  
<sup>2</sup>Institute of Pharmaceutical Technology, Sri Padmavati Mahila Viswavidyalayam, Tirupathi, Andhra Pradesh, INDIA.  
<sup>3</sup>Department of Gastroenterology, Krishna Institute of Medical Sciences, Minister Road, Secunderabad, Telangana, INDIA.

**ABSTRACT**  
 Background: This study is aimed to evaluate the impact of non-sedation in gastrointestinal conventional endoscopy practices in outpatient setup. The importance of our study is to assess the safety, tolerability of the non-sedation methodology and suggest the benefits of the non-sedation procedures. This study was conducted in endoscopy department of Krishna Institute of Medical Sciences (KIMS). A total of 150 patients were included in the study after acquiring their consent over it. Pregnant, lactating women, Volunteers with less than 18 years, Patients with Cardio respiratory problems and recent myocardial infarction were excluded from the study. All the necessary data was collected from the patient record such as case sheets, lab reports, medical history. Required tools and software were used to assess the collected data and results were calculated based on them. Aim: To Evaluate and Study the impact of non-sedation in gastrointestinal conventional endoscopy practices in outpatient setup. **Materials and Methods:** In the present study, a total 150 subjects undergoing Endoscopy were enrolled as per inclusion and exclusion criteria from the Department of Gastroenterology, Krishna Institute of Medical Sciences (KIMS). **Results:** Based on post endoscopy complications, 70 cases were with Difficulty in swallowing (47%), 2 cases were with Change in speech (1%), 46 cases with Throat pain (31%) and 32 cases were with Vomiting sensation (21%). Based on pre pain score of 86 were little discomfort, 53 were mild pain, 14 for moderate pain and none had severe pain. Based on oxygen saturation levels during endoscopy 36 cases were of SpO2 (100%), 59 cases of SpO2 (98%), 55 cases of SpO2 (97%). Based on pain scale endoscopy, 26 people are in pain before endoscopy, 89 people are in pain during endoscopy, 35 people are in pain after endoscopy. Post endoscopy pain score (sedation) were 87 people has pain after endoscopy (2 hr), 43 people has pain after endoscopy (4 hr), 20 people having pain after endoscopy (8 hr). **Conclusion:** The present study concludes that patients can also undergo the endoscopy procedures without taking a sedative which decreases the unwanted side effects which are commonly observed with the sedatives and also improve the quality of life of patients and even they need not to be monitored as a follow up for further complications.

**Key words:** Endoscopy, Gastro Intestinal Tract, Colonoscopy, Non sedation, Safety, Tolerability.

**INTRODUCTION**  
 Unsedated Endoscopy has an important function to play a role in GI Endoscopy practise. It is technically available to a limited number of patients. Smaller diameter endoscopes, less than 9 mm in diameter, can improve the tolerability of upper endoscopy when no sedation is used. Many patients refuse to be sedated for examinations, and those who have had endoscopy may have more pain (or) discomfort symptoms than those who have had conventional endoscopy. During an unsedated endoscopy, topical anaesthesia is commonly used. Patients who do not have a history of abdominal pain and are not anxious may tolerate less (or) no sedation better. Although sedated endoscopy appears

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Indian Journal of Pharmacy Practice, Vol 15, Issue 2, Apr-Jun, 2022

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## INSIGHTS ON ROLE OF POTENTIAL ANTIBIOTICS TO FIGHT COVID-19: A MOLECULAR DOCKING APPROACH

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**BACKGROUND:** Rapid spread of SARS-CoV-2 disease and the identification of effective therapeutic agents is a major challenge for clinicians nowadays. **AIM:** The present work was initiated with an objective a) To evaluate the COVID-19 inhibitory activity of potential antibiotics using *in silico* docking studies b) Repurposing the existing antibiotics for the treatment of dreadful viral infections. **METHODOLOGY:** *In silico* docking studies were carried out using Swiss dock and recent version of Auto Dock 4, which has the basic principle of Lamarckian genetic algorithm. The important docking evaluation parameters such as binding energy and the interacting amino acids were determined for the selected ligands. The crystal structures of COVID-19, main protease (PDB ID: 6M03), nucleocapsid phosphoprotein dimerization C-terminal (PDB ID: 6YUN) and the spike like protein receptor binding domain (PDB ID: 2GHV) downloaded from protein data bank were used as the targets. In this perspective, all the ligands were prepared for the docking evaluation. Remdesivir, a reported drug to fight COVID-19 was used as the standard. **RESULTS & DISCUSSION:** The results showed that Rifampicin showed excellent binding energy comparable to the standard. These molecular docking analyses could lead to the further development to identify the potent inhibitors for the treatment of severe acute respiratory syndrome Coronavirus 2.

**KEYWORDS:** Severe acute respiratory syndrome Coronavirus 2, SARS-CoV-2, Molecular docking, Autodock, Antibiotics, COVID-19, Rifampicin

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## Bharat Institute of Technology IV-Years visit to Centre for Cellular and Molecular Biology



  
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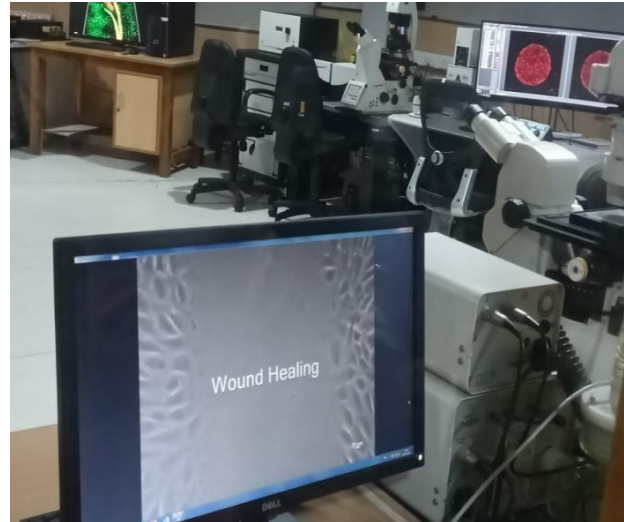




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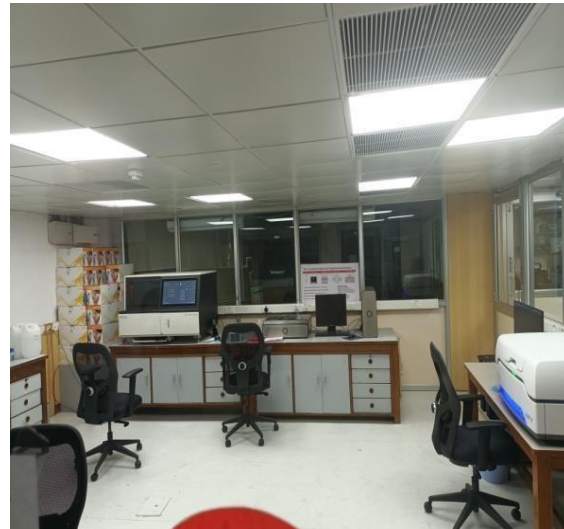
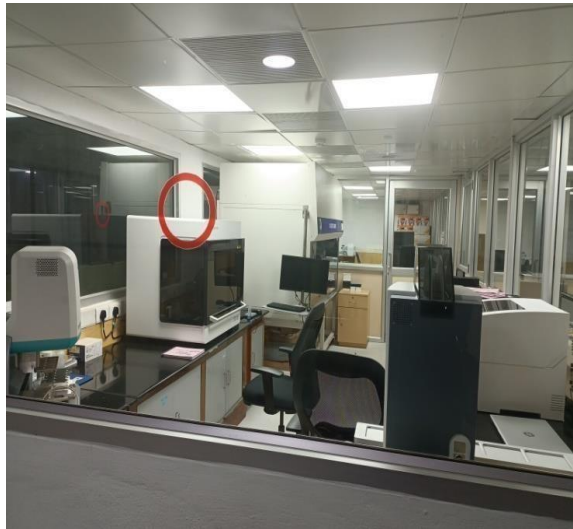
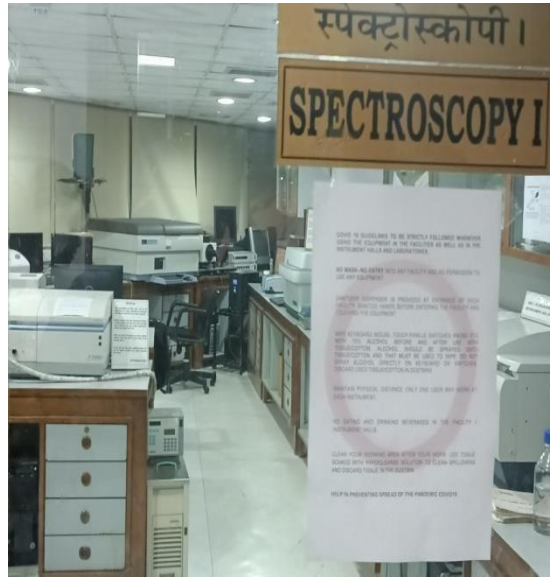
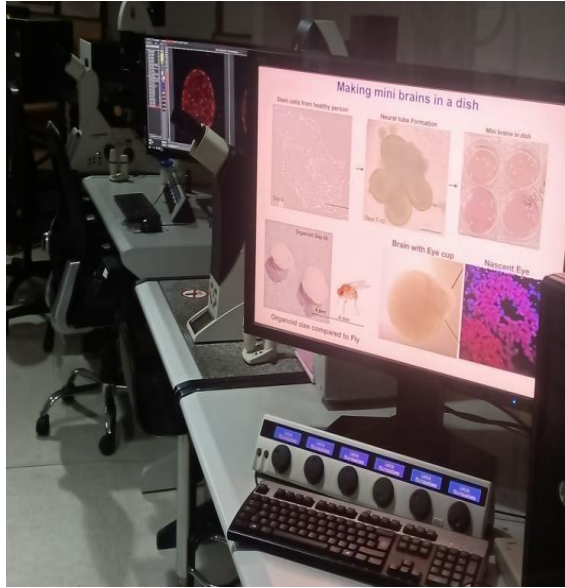
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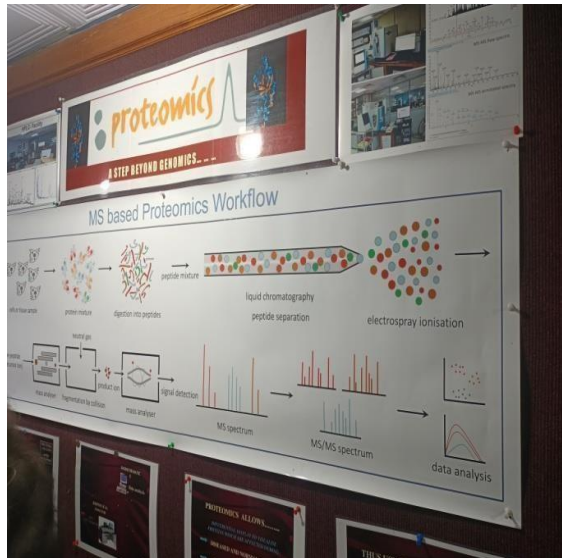
  
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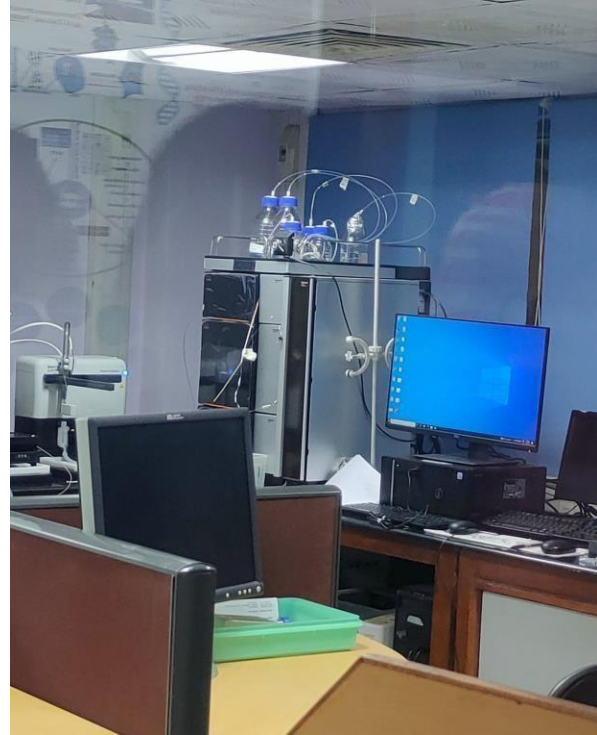
  
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MANGALPALLY, IBRAHIMPATNAM -501510

## AWARENESS PROGRAMME ON WORLD KIDNEY

### DAY

- WHO has recognized 10.03.2022 as world kidney day. On this occasion we have done an awareness program in Akshaya old age home and Vignan school at Nagole.
- The students of Pharm D 5th year and 2<sup>nd</sup> year have participated in this activity.
- We have created awareness among them about kidney disease, diet, treatment and done patient counseling by showing some videos.
- We have distributed some fruits and groceries in old age home.
- At 1.00pm, we have given awareness program in Vignan school at Nagole for 6,7,8<sup>th</sup> standard students. We have explained regarding functions and role of kidneys in our body, its physiology and pathogenesis. We have enlighten them with some preventive measures by showing videos.



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The banner features the Bharat Institutions logo on the left and the World Kidney Day logo on the right. The central text reads: "BHARAT INSTITUTIONS MANGALPALLY, IBRAHIMPATNAM, HYD 501510" and "WORLD KIDNEY DAY 10<sup>TH</sup> MARCH 2022". Below this, there are three images: a green awareness ribbon, a circular collage of kidney-related icons (heart, brain, lungs, stomach, thumbs up, etc.), and a pair of hands holding a kidney. The theme is "THEME: KIDNEY HEALTH FOR ALL" and the slogan is "BRIDGE THE KNOWLEDGE GAP TO BETTER KIDNEY CARE".

Honourable chairman: CH VENUGOPAL REDDY garu Faculty co-ordinators: Mrs. B. Swathi, Dr. Arifa begum, Dr. Marina Dsouza, Mrs. P. Haritha  
Principal: Dr. RK Mohamed Mutahar Student co-ordinators: Pharm D 5<sup>th</sup> year

Faculty Coordinator:

1. Ms. P. Twila Pushpa  
(Assistant Professor)  
[twilapushpa@bitpharmacy.org](mailto:twilapushpa@bitpharmacy.org)
2. Ms. JE Rachel Nivedita  
(Assistant Professor)  
[rachel@bitpharmacy.org](mailto:rachel@bitpharmacy.org)

  
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