



ARKA JAIN University
Jharkhand

SCHOOL OF PHARMACY, ARKA JAIN UNIVERSITY, JHARKHAND, INDIA

In collaboration with

SCHOOL OF ALLIED HEALTH, PHARMACY DEPARTMENT, SAN PEDRO COLLEGE, PHILIPPINES, and in Association with MoU PARTNERS, IQA CELL, INDUSTRY INSTITUTE INTERACTION CELL & RESEARCH DEVELOPMENT CELL OF AJU

Organizes

International Conference - 2023 (Blended Mode)

on

"GLOBAL HEALTH CHALLENGES & TRANSLATING RESEARCH INTO PRACTICE (GHCTRP)"



DATE : 2nd - 6th May, 2023

TIME: 10:00 AM (IST) Onwards

Venue : ARKA JAIN University Campus

CHIEF GUEST	GUEST OF HONOUR	CHIEF SPEAKER	CHIEF PATRON	CHIEF PATRON	PATRON	PATRON	CONVENER	CONVENER	CONVENER
 Dr. Montu M. Patel President - Pharmacy Council of India, New Delhi, India	 Pro. (Dr.) Dulal Krishna Tripathi (M. Pharm, Ph. D.), Former Dean - Faculty & Chairman BOS, Chhattisgarh Swami Vivekanand Technical University, India	 Mr. Dharmendra Singh EC Member, Pharmacy Council of India	 Prof. Dr. S. S. Razi Vice-Chancellor, ARKA JAIN University, Jharkhand, India	 Sr. Aida T. Frencillo OP, President, San Pedro College, Philippines	 Mr. Amit Kumar Shrivastav Director, ARKA JAIN University, Jharkhand, India	 Fatima May Tesoro Dean, San Pedro College, Philippines	 Dr. Jyotirmaya Sahoo, Dean, School of Pharmacy, ARKA JAIN University, Jharkhand, India	 Dr. Priyambada Kshiroda Nandini Sarangi Director, Holy Grace Academy of Pharmacy, Thrissur, Kerala, India	 Prof. Jacqueline Padilla Dean, Pharmacy Department, San Pedro College, Philippines

CONVENER	Resource Persons							
 Dr. Erwin M. Faller Director & Professor, Pharmacy Department, San Pedro College, Philippines	 Dr. Harish Choudhury Senior Medical Consultant, KIMS, Bhubaneswar, Odisha, India	 Dr. Nagaraj Rao Managing Director, Rane Rao Reshomia Laboratories Pvt. Ltd., New Mumbai, India (MoU Partner)	 Dr. Vivien Leigh P. Mina, Mindanao State University-General Santos, Philippines/ PhD, University of the Immaculate Conception, Philippines	 Dr. Ma. Eloisa P. Espanola, College Dean, Holy Child Central Colleges, South Cotabato, Philippines/ PhD, University of the Immaculate Conception, Philippines	 Prof. (Dr.) Pratap Kr. Sahu School of Pharmaceutical Sciences, S'O'A University, Bhubaneswar, Odisha, India	 Dr. Marilou Vicente Tablizo University of the Immaculate Conception, Philippines	 Dr. Chita Ranjan Sahoo ICMR-Centenary Post Doctorate Fellow, Department of Health Research, Ministry of Health and Family Welfare, Government of India	 Professor (Dr.) G P Mohanta Former HOD - Annamalai University, Chidambaram, Tamil Nadu, India

MoU PARTNERS



A Technical Collaborative Research and Skill Development Program

Fully engaged sessions of Scientific Presentations, Talks by Eminent Resource Persons and Cultural Activities by the Students



Dr. Montu M. Patel
President, Pharmacy Council of India, New Delhi
Guest of Honour

Message

It gives me immense pleasure to write for the proceeding of International Conference on “Global Health Challenges & Translating into Practice (GHCTRP)” organized by School of Pharmacy, Arka Jain University collaboratively with San Pedro College, Philippines. Conferences of this magnitude help the graduate students and researchers to interact amongst themselves as well as experts in various areas. I feel that, with presentations and interactions with experts; students are exposed to the emerging trends in respective domains and the research work being carried out. I would like to congratulate participants for contributing to this conference. I appreciate conference conveners, faculty coordinators, staff members of both the organization for organizing the International Conference focusing on Translating into Practice.



Mr. Dharmendra Singh
EC Member Pharmacy Council of India, New Delhi
Chief Speaker

Message

Education is always a sign of development and learning. It should be research-oriented helping society to create something new. Thinking in an innovative and new way is significant to cope with technological changes. This Conference provides a forum for scholarly discussion on various health Challenges and translating research into practice. It is a matter of great pleasure for me to join as chief speaker in this International Conference collaboratively organized by School of Pharmacy, Arka Jain University and School of Allied Health Sciences - Pharmacy Department San Pedro College, Philippines and MOU partners on “Global Health Challenges & Translating into Practice (GHCTRP)”. It is also relevant for exploring and searching various aspects of education through the appropriate application of information technology. Presentation of research papers is extremely beneficial for research scholars and stimulating factor for organizers to organize such conferences frequently in future.



Prof. (Dr.) Syed Safdar Razi
Vice-Chancellor, AJU
Chief-Patron

Message

Arka Jain University holding the torch of illuminating new ideas and fostering innovation for the generations to come, is striving to realize the vision of the University to 'empower talent through its innovative learning experience'. In the same context, the School of Pharmacy has been extending its effort to bring the University close to its purpose and mission.

This is the second time, collaboratively with San Pedro College, Philippines, an international conference on "Global Health Challenges & Translating into Practice (GHCTRP)" has been scheduled and this is again an interesting area of deliberation.

I welcome all the esteemed resource persons, delegates, sponsors, participants, organizing members and congratulate all for its grand success. I am confident that the participants will take optimal academic advantage of the five-day conference.

It's my aspiration that this collaborative conference will be a base for new ideas towards global health challenges and translating into practice. I wish a grand success of the conference.



Sr. Aida T. Frencillo, op
President, San Pedro College, Philipines
Chief-Patron

Message

It is truly fascinating to know that two learning institutions, Arka Jain University, INDIA with its school of pharmacy and San Pedro College's pharmacy department, were resolute in their decision to forge time, talent and even resources in order to realize this conference titled "Global Health Challenges & Translating into Practice (GHCTRP)" as the key to unlimited discoveries".

Surely, the organizers are with high hopes that academician, scientists, pharmacists and students participating in this five days conference will be immensely enriched through the sharing from renowned speakers and presenters in this event.

It is also my wish that your learning from this conference may kindly ideas which will be translated into products to help alleviate human infirmities.

I comment the efforts of everyone in creating this note-worthy engagement.

On behalf of San Pedro College, I offer my warmest thanks to everyone which present.

Good day everyone!!May you find this virtual conference rewarding.



Amit Kumar Shrivastava
Director, Arka Jain University,
Jharkhand
Patron

Message

In the relentless task of nation building, Arka Jain University, Jharkhand is committed to promote excellence in higher education for a sprightly and inclusive society through knowledge creation and dissemination of it. It is sincerely making all efforts to contribute by providing the right kind of human resources and heading towards accomplishing its mission to impart quality education. Thus, it encourages co-curricular, extra-curricular and extension activities along with curricular activities.

I am delighted to know that School of Pharmacy, Arka Jain University is going to organize a five-day International Conference 2023 on “Global Health Challenges & Translating into Practice (GHCTRP)” collaboratively with San Pedro College, Philippines. This is again a step ahead in expanding the horizon of our interest in research and innovation.

The topic of the conference is quite relevant for contemporary pharmaceutical researchers, academicians and entrepreneurs and I take this opportunity to admire the commitment of the organizers and congratulate them for the success of the conference. I profusely thank all the stakeholders for their effort to encourage such an academic pursuit. I earnestly hope that the conference would facilitate the establishment of international joint research schemes and programs and become a forum for the exchange of innovative ideas. I wish the conference an awe-inspiring



Fatima May Tesoro

Dean, San Pedro College, Philipines

Patron

Message

It is my great honour and pleasure to invite you to participate in the “Global Health Challenges & Translating into Practice (GHCTRP)” collaboratively organized by school of pharmacy, Arka Jain University, INDIA and San Pedro College’s pharmacy department, from 2nd of May to 6th May 2023.

At this conference let us celebrate what we, as a professional community, have achieved. Additionally, our future vision is to create even greater value to all corners of the globe. This conference will be one for us to share our thoughts and exchange ideas on how to chart our journey forward to reach new heights. It will feature highly respected internationally renowned speakers who will share, discuss, debate, and dissect significant global health challenges and translating into practice.

Sincerely hope that this conference will deliberate on various issues that need to be addressed and it would be a memorable and productive as well.

I extend my heartfelt wishes to all the participants who have contributed in making this conference a great success.



Dr. Jyotirmaya Sahoo

Dean, School of Pharmacy, AJU

Convener

Message

This is indeed a matter of pleasure and honour to witness the five-day international conference on “Global Health Challenges & Translating into Practice (GHCTRP)” from 2nd of May to 6th May 2023 to be organized collaboratively by Arka Jain University, India and San Pedro College, Philippines.

In fact, success for any conference requires dedication, formalities and clear objective. This is good to know that both the institutes have collaborated well to organize it in a proper manner. The cohesive efforts of a dedicated and committed team become necessary for organizing such conferences. We are fortunate enough for having such a hardworking team with us. I wish for the grand success of the conference.

I am quite sure that this conference would be a memorable and productive opportunity for the attendees and the resource persons as well.

I wish one and all my best wishes for its success.



Dr. Priyambada Kshirodanandini Sarangi
Director, Holy Grace Academy, Thrissur, Kerala
Convener

Message

It gives me great pleasure to be part of the International Conference on “Global Health Challenges & Translating into Practice (GHCTRP)” conducted collaboratively by Arka Jain University, India and San Pedro College, Philippines. The conference proceedings is a collection of research based articles and papers presented by graduate and post graduate students and research scholars from all over India. These articles not only handles various issues in the field of Research but also touch an array of topics right from the field of academics to industry and to research. Conducting a conference of this magnitude is always encouraging and I would appreciate the efforts of the School of Health and Allied Science in this endeavor. I hope that the conference will provide a platform for various personnel to introduce innovative ideas and thoughts and exhibit their research skills in the area of academics, pharma industries for sustainable development.



Prof. Jacqueline Padilla
Dean, Pharmacy Department, San Pedro College, Philippines
Convener

Message

I am delighted in acknowledging the International Conference organized by School of Pharmacy, Arka Jain University in collaboration with School of Allied Health Sciences - Pharmacy Department San Pedro College, Philippines and MOU partners on “Global Health Challenges & Translating into Practice (GHCTRP)”. I appreciate the organizing committee for showing a keen interest in organizing a successful Conference and contributing new ideas and translating research into practice. I wish them for their endeavours to spread knowledge.



Prof. Dr. Erwin M. Faller
Director, Professor, Pharmacy Department, San Pedro
College, Philipines
Convener

Message

Education is an instrument to enhance the capabilities of human beings to become knowledgeable, creative and good citizens which resulted in my urge to develop excellent educational facility. I am extremely happy as convener, hosting International Conference on “Global Health Challenges & Translating into Practice (GHCTRP)”. It is a justified gesture to provide a platform for graduate students and researchers to present their work and seek expert’s evaluation that provides insight in the work undertaken. I hope that the presentations, discussions, appreciations and suggestions will help in improving their research work. I extend my heartfelt wishes to all the participants who have contributed in making this conference a great success.



Prof. Dr. Nalini Kanta Sahoo,
M.Pharm, Ph.D, FSASS, SRAP, Post Doc (Vietnam)
Professor and Head,

Department of Pharmaceutical Technology,

Meerut Institute of Engineering and Technology (MIET),

Dr. A.P.J. Abdul Kalam Technical University,

Baghpat Road Bypass Crossing Meerut,

UP, India, 250005

Message of Section Editor

It gives me great pleasure to express my views for the proceeding of International Conference on “Global Health Challenges & Translating into Practice (GHCTRP)” organized by School of Pharmacy, Arka Jain University collaboratively with San Pedro College, Philippines to be published in esteemed magazine **Pharmatutor** as section editor. Such innovative and informative Conferences help the pharmacy students and researchers for close interaction amongst themselves, with experts and other delegates from various areas. I feel students are exposed to the emerging trends in respective domains and the research work being carried out. I would like to congratulate participants for contributing and presenting their research works in this conference. I appreciate conference conveners, faculty coordinators, staff members and Pharmatutor for organizing such an International Conference focusing on learning transforming into Practice.

About Pharmatutor

PharmaTutor is simply a complete pharmapedia for Pharma & Lifescience professionals. PharmaTutor actively provides online education for GPAT preparation. It features articles, news, job listings, and study materials for students and professionals in the field of pharmacy. The website also offers a forum for discussion and a directory of colleges and companies in the pharmaceutical industry. PharmaTutor is a useful resource for those looking to stay up-to-date with the latest developments in the pharmaceutical field and for those seeking educational and career opportunities in the industry.

[#1 Pharmacy organization in the world by ALEXA](#)

[* Received Award as Best Pharma Career Portal at ISFCP](#)

[* Received Award for Best Pharma Portal by Indian Pharmaceutical Association - AP](#)

[#1 Indian Pharma website and ranked no. 4 in the world](#)

Thanks & Regards,

Dr. Rajesh Vagh

PharmaTutor Team

5th May 2023				
Day 4 Scientific Session (Hosted by SPC)				
Saraswati Vandana & Spiritual Lamp lighting				10:30-10:40 am
1	Prof. Dr. Erwin M. Faller	Professor, Pharmacy Department, San Pedro College/ PhD, University of the Immaculate Conception, Philippines	Efficacy of Nirmatrelvir & Ritonavir Combination Treatment for COVID-19 in Adults: A Systematic Review and Meta-Analysis	 11:30 am -12:45 pm
2	Dr. Chita Ranjan Sahoo	ICMR-Centenary Post Doctorate Fellow, Department of Health Research, Ministry of Health & Family Welfare, Government of India	Sea to Pharmacy: current prospects on AMR	 12:50:1-35 pm
3	Professor (Dr) G P Mohanta	Former HOD Annamalai University, Chidambaram, Tamil Nadu	Pharmacoeconomics: a concern for drug therapy!	 1:40 - 2:25 Pm
6th May 2023				
Day 5 Scientific Session (Hosted by AJU)				
Saraswati Vandana & Spiritual Lamp lighting				10:30 - 10:40 am
Virtual Oral Presentations (Maximum 7 slides Timing 7-2~ 9 minutes)				10:45 am-12:45 pm
Valedictory and Concluding Remarks by Dr Amit Kumar, IQA Cell ARKA JAIN University, Jharkhand, India				12:50 pm onwards
Vote of Thanks by Mr. Sumanta Sen & National anthem				10:45 am - 12:45 pm
MOU PARTNERS				
				




ARKA JAIN University
Jharkhand



INTERNATIONAL CONFERENCE-2023
(Blended Mode)
On
"GLOBAL HEALTH CHALLENGES & TRANSLATING RESEARCH INTO PRACTICE (GHCTRP)"

2nd - 6th May 2023

COLLABORATIVELY ORGANISED BY
SCHOOL OF PHARMACY, ARKA JAIN UNIVERSITY, JHARKHAND, INDIA
and
SCHOOL OF ALLIED HEALTH SCIENCES, PHARMACY DEPARTMENT, SAN PEDRO COLLEGE, PHILIPPINES & MOU PARTNERS.
In Association With
IQA CELL, INDUSTRY INSTITUTE INTERACTION CELL & RESEARCH DEVELOPMENT CELL OF AJU



CHIEF GUEST :

Dr. Montu M. Patel President Pharmacy Council of India, New Delhi

GUEST OF HONOUR :

Professor (Dr.) Dulal Krishna Tripathi (M. Pharm, Ph. D.), Former Dean of the Faculty & Chairman BOS, Chhattisgarh Swami Vivekanand Technical University

CHIEF SPEAKER:

Mr. Dharmendra Singh EC Member Pharmacy Council of India

CHIEF PATRON:

Prof. Dr. S. S. Razi Vice Chancellor, ARKA JAIN University, Jharkhand, India
Sr. Aida T. Frencilo, OP., President, San Pedro College, Philippines

PATRON:

Mr. Amit Kumar Shrivastav, Director, ARKA JAIN University, Jharkhand, India
Fatima May Tesoro, Dean, San Pedro College, Philippines

CONVENER:

Dr. Jyotirmaya Sahoo, Dean, School of Pharmacy, ARKA JAIN University, Jharkhand
Dr. Priyambada Kshirodananandini Sarangi, Director, Holy Grace Academy, Thrissur, Kerala
Prof. Jacqueline Padilla, Dean, Pharmacy Department, San Pedro College, Philippines
Prof. Dr. Erwin M. Faller, Director, Professor, Pharmacy Department, San Pedro College, Philippines.

LOCAL ORGANIZING COMMITTEE:

Dr. Kirtimaya Mishra, Professor, Mr. Sumanta Sen & Mr. Alok Kumar Moharana Associate Professor School of Pharmacy, ARKA JAIN University, Jharkhand.

EVENT COORDINATOR:

Miss Shreya Chakraborty, Assistant Professor of Department of Optometry, ARKA JAIN University, Jharkhand

ORGANIZING COMMITTEE:

Mr. Swagatam Sahoo, Dr. Shweta, Dr. Babita Sarangi, Miss Priyabati Choudhary, Miss Rashmi Tirkey, Miss Anikta Moharana, Miss Pratiksha Sarangi, Mr. Gowri Sankar Chintapalli, Miss Diptimayee Jena, Mr. Tunul Guria, Mr. Suraj Kumar Sharma, Mr. Soubhik Bhattacharya, Mr. Souvik Mandal, Mr. Atal Bihari Singh, Mr. Asutosh Parida, Mr. Rashmi Ranjan Das, Mr. Dusmanta Mahanta, Mr. Barun Mandal, Mr. Pradeep Mandal, Miss Nisha Panda, Mr. Pravash Ranjan Dash, Dr. Jyoti Khurana, Mr. Sai Debasis Panda, Dr. Pratima Srivastava ARKA JAIN University, Jharkhand, India.

ADVISORY COMMITTEE

Mr. Jasbir Singh Dhanjal, Registrar, ARKA JAIN University, Jharkhand
Dr. Angad Tiwary, Dean, Student Welfare, ARKA JAIN University, Jharkhand
Ms. Richa Garg, Chief Finance & Account Officer, ARKA JAIN University, Jharkhand

Dr. Amit Kumar, Member - IQA Cell, AJU, Jharkhand, India
Dr. Arvind Kumar Pandey, Head, Department of CSIT, AJU, Jharkhand, India
Dr. Ashwini Kumar, Asst. Dean, Department of Engineering, AJU, Jharkhand, India
Dr. Praveen Kumar Thakur, Dean, School of Commerce and Management, AJU, Jharkhand, India
Dr. Sonia Riyat, School of Research, AJU, Jharkhand, India
Ms. Rajkumari Ghosh, Head, Department of English, School of Humanities, AJU, Jharkhand, India
Dr. Manoj Kumar Pathak, Department of English, School of Humanities, AJU, Jharkhand, India
Dr. Santosh Kumar Singh, Head, Department of Biotechnology, AJU, Jharkhand, India
Dr. Sarbojeet Goswami, Head, Department of Optometry, AJU, Jharkhand, India
Ms. Ginu Anie Joseph, Principal, School of Nursing, AJU, Jharkhand, India
Dr. Rahul Amin, Head, Department of Journalism & Mass Communication, AJU, Jharkhand, India
Ms. Usha Kiran Barla, Head, Fashion Design, School of Humanities, AJU, Jharkhand, India

STUDENT COMMITTEE

Miss Ishika Choudhary, Miss Ragheeha Bhattacharya, Mr. A M Shobhit, Mr. Abhishek Ranjan, Miss Jaya Sharma, Miss Bidisha Satpathy, Mr. Akash Deep, Mr. Subhanshu Dutta, Mr. Sumant Thakur, Miss Shristi Shreya, Miss Nahida Javeed, Mr. Chinmay Kumar, Miss Shalini Singh, Miss Sofiya Parween and Mr. Sunny Kumar.

RESEARCH AND SCIENTIFIC COMMITTEE

Dr. Jyotirmaya Sahoo, Dr. Soniya Riyat, Dr. Shweta., Dr. Babita Sarangi, Mr. Sumanta Sen, Mr. Alok Kumar Moharana, Dr. Santosh Kumar Singh, Dr. Kirtimaya Mishra, Mr. Sarbojeet Goswami, Miss Snigdha Rani Behera and Dr. Chandra Prabaha Sahu.

REVIEWERS' COMMITTEE

Prof. (Dr.) P. Sudhir Kumar, Pharmaceutical Chemistry, School of Pharmaceutical Sciences Siksha 'O' Anusandhan Deemed to be University, Bhubaneswar, Odisha, India
Dr. Chita Ranjan Sahoo, ICMR-Centenary Post, Doctorate Fellow, Department of Health Research, Ministry of Health and Family Welfare, Government of India.

REGISTRATION:

Miss Rashmi Tirkey, Mobile 8018814236, E-mail: rashmi.t@arkajainuniversity.ac.in
Dr. Kirtimaya Mishra, Mobile 09944937088, E-mail: dr.kirtimaya@arkajainuniversity.ac.in

LINK FOR VIRTUAL PARTICIPATION & SCIENTIFIC PRESENTATION REGISTRATION:

<https://forms.gle/DiVcNAH3d59e3wpY8> Registration fee Rs-100/ only for Indian Participants.

LAST DATE OF REGISTRATION FOR ABSTRACT SUBMISSION OF SCIENTIFIC PRESENTATION : 25th April 2023.

Abstract should not more than 150 words and below 10% similarity index. All participants requested to submit an abstract. Abstracts should be clear and factual in content. Abstract must present the reason of the study (aims & ideas), the main findings and principal conclusions. Emphasis may be made on new and important aspects of the study or may highlight some important observations. Basic procedures, if entirely novel, may be briefly included. Main findings in terms of specific data collated and its associated statistical significance may be briefly mentioned. No abbreviations or references should be cited in the abstract. Presenters have to present virtually. (It is not mandatory to present a session for all the registered participants. One can only registered to participate the International Conference without presentation, however interested participants may opt for present a session if they want)

FEEDBACK:

Miss Rashmi Tirkey, Mobile 8018814236, E-mail: rashmi.t@arkajainuniversity.ac.in
 Dr. Kirtimaya Mishra, Mobile 09944937088, E-mail: dr.kirtimaya@arkajainuniversity.ac.in.
 Feedback form will be circulated on 6th May 2023 in the whatsapp group.

IT-MANAGEMENT

Mr. Umesh Tiwari, Mr. Abhishek Ranjan

DESIGN, PROMOTION, COMMITTEE FOR CULTURAL ACTIVITIES, PRESS MEDIA & WEBSITE UPDATE

Mr. Sanjay, Dr. Santosh Kr Singh, Miss Shreya Chakraborty,
 Dr. Manoj Pathak, Mr. Asutosh Parida.

AWARDS AND CERTIFICATES :

All the participants will be provided with E-certificates on their mail id and winner presenters will be sent the certificate of achievement on their postal address.

CONFERENCE PROCEEDING

Mr. Alok Kumar Moharana, Associate Professor, School of Pharmacy, ARKA JAIN University, Jharkhand
 N.B: It will be bit time taking to publish the conference proceedings hence participants are requested to bear with us till its publication. Certificates will be despatched maximum within 15 days from the valedictory

OBJECTIVE

Translational research has a variety of definitions, but commonly is considered research that translates new information or knowledge that is created in one area to another application. Translational research is a bidirectional process that involves multidisciplinary integration among basic, clinical, practice, population, and policy-based research. The goal of translational research is to speed up scientific discovery into patient and community benefit. This is key concepts, methods, and trial types in translational research. The primary focus is on dissemination and implementation (D&I) research, or the systematic study of processes and factors that lead to widespread use and successful integration of evidence-based interventions into real-world clinical and community settings. This links scientific findings with treatments that improve human health and well-being while also using clinical observation to develop new research questions to address with basic science. Two general types of translational research have been defined: Translation, which applies basic biomedical discoveries to improve clinical treatments; and Translational, which is intended to apply the newly minted clinical treatments to community practice.

ABOUT

ARKA JAIN University, the 1st Private University of Kolhan Region, Jharkhand, India established by the JHARKHAND, recognized by UGC is an example of excellence. The University situated 13 kms from steel city, Jamshedpur of Gambaria offers multidisciplinary programs designed in a way to shape the brilliant minds of today into socially-conscious managers, leaders and entrepreneurs of tomorrow. The use of highest-quality research-led teaching and learning methods helps students evolve and be ready for the requirements of the industry because we believe - You're one of a kind. So are WE. The University has seven schools and fifty-five programs. The School of Pharmacy is approved by Pharmacy Council of India, New Delhi and affiliated to ARKA JAIN University, Jharkhand. Both Undergraduate and diploma courses in pharmacy is running by the School. The School looks forward in developing a disease free Nation by initiating an integrative module of academics and research.

San Pedro College is a private Catholic research and coeducational basic and higher education institution run by the Dominican Sisters of the Trinity in Davao City, Philippines. It was founded in 1956. The college also administers one satellite Basic Education Campus at Ulas, Davao City. Five (5) major schools are School of Allied Health Sciences, Nursing, Psychology and Guidance Counselling, Medical Laboratory Sciences, Business Management, Education, Arts and Sciences. Moreover, the schools offer masters and doctorate programs that are accredited in different local and national qualification agencies. It is one of the esteemed MOU partners of ARKA JAIN University.

Fourts (India) Laboratories Pvt. Ltd. was founded in 1977 with a strong commitment to the society to deliver quality health care at Chennai, Tamil Nadu under the direct supervision of Chairman and Managing Director Shri S V Veerramani is the esteemed MOU partner of ARKA JAIN University.

Rane Rao Reshamia Laboratories Pvt. Ltd. are first-generation Entrepreneurs with background and experience in Chemistry, Chemical Engineering, pharmacy & Biotechnology The RRR Group is technology-driven and most products offered by it have been developed in-house. "The Rane Rao Reshamia Labs Pvt Limited, Maharashtra, India, which is represented by its Managing Director Dr. Nagaraj Rao is the esteemed MOU partner of ARKA JAIN University.

SRM Madinagar College of Pharmacy, SRM Institute of Science and Technology (Deemed to be University), Delhi-NCR Campus, Uttarpradesh, under the principal-ship of Dr. Nalinikanta Sahoo is the esteemed MOU partner of ARKA JAIN University.

Holy Grace Academy of Pharmacy, Kuruvilassery, P.O. Veliyaparambu, Mala, Thrissur, Kerala, PIN: 680732 was established and started on 2019 with the intension of molding competent pharmacy professionals for positive contribution in the growth and development of a healthy society. The Holy Grace Academy of Pharmacy is approved by Pharmacy Council of India (PCI) and All India Council for Technical Education (AICTE), and affiliated to Kerala University of Health Sciences (KUHS). It is unique in academic and co-curricular aspects and the institution has a visionary management, dedicated faculties and a promising generation of students.

Schedules at a Glance for International Conference - 2023

2nd May 2023	
INAUGURAL SESSION (Hosted by AJU)	
Itinerary	Time
Sacred Flag hoisting bearing the symbol of Pharmacy	10:00 am
Inaugural Dance in-front of Block B	10:10 am
Welcome Address Dr. Manoj Kumar Pathak, Associate. Professor, Department of English, ARKA JAIN University, Jharkhand, India	10:20 - 10:30 am
Saraswati Vandana & Spiritual Lamp lighting	10:30 - 10:40 am
Address by Hon. VC Professor (Dr.) S.S. Razi of ARKA JAIN University, Jharkhand, India	10:40 - 10:50 am
Address by Convener Prof. (Dr.) Jyotirmaya Sahoo, Dean of School of Pharmacy ARKA JAIN University, Jharkhand, India	10:50 - 11:00 am

Address by Convener Prof. (Dr.) Priyambada Kshirodananandini Sarangi, Director, Holy Grace Academy, Thrissur, Kerala, India	11:00 - 11:10 am
Address by Prof. Jacqueline Padilla, Dean Pharmacy Department San Pedro College, Philippines.	11:10 - 11:20 am
Address by Chief Patron Hon. President Sr. Aida T. Frencilo, OP of San Pedro College, Philippines	11:20 - 11:25 am
Address by Chief Speaker Mr. Dharmendra Singh, EC Member Pharmacy Council of India	11:25 - 11:30 am
Address by Guest of Honor Professor (Dr.) Dulal Krishna Tripathi (M. Pharm, Ph. D.), Former Dean of the Faculty & Chairman BOS, Chhattisgarh Swami Vivekanand Technical University.	11:30-11:40 am
Address by Chief Guest Dr. Montu M.Patel President Pharmacy Council of India, New Delhi	11:40-11:50 am
Musical performance by Pankaj Mishra and his team	11:50 -12:00 pm
Vote of Thanks by Mr. Sumanta Sen & National anthem	12:00-12:10 pm

Day 1 Scientific Session				
Sl. No.	Speaker	Speaker's Affiliation	Topic Title	Time
1	Dr. Harish Choudhury	Senior Medical consultant at KIMS, Bhubaneswar, India	Dark Moon in Health Care	12:30 - 1:30 PM

Vote of Thanks by Mr. Sumanta Sen & National anthem

3rd May 2023				
Day 2 Scientific Session (Hosted by SPC)				
Saraswati Vandana & Spiritual Lamp lighting				
1	Dr. Nagaraj Rao	Managing Director Rane Rao Reshamia Laboratories Pvt Ltd Navi Mumbai, India (MOU Partner)	Difference between Research and Development	11:30 am -12:45 pm
2	Dr. Vivien Leigh P. Mina	Pharmacology Department, Mindanao State University-General Santos, Philippines/PhD, University of the Immaculate Conception, Philippines	Efficacy and Safety of Molnupiravir in Adult Patient with COVID-19: a Systematic Review and Meta-Analysis	12:50 -1:35 pm

3	Prof. Fatima May Tesoro	President, Mindanao Alliance of Pharmacy School/ Dean, School of Allied Health Sciences, San Pedro College, Philippines	TINUBDAN-Research and Community Engagement Tandem: Our Ways Forward in Navigating through COVID Era		1:40 - 2:25 pm
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Vote of Thanks by Mr. Sumanta Sen & National anthem

4th May 2023					
Day 3 Scientific Session (Hosted by AJU)					
Saraswati Vandana & Spiritual Lamp lighting					
1	Dr. Ma. Eloisa P. Espanola	College Dean, Holy Child Central Colleges, South Cotabato, Philippines/ PhD, University of the Immaculate Conception, Philippines	Antibody Titer due to COVID-19 Vaccination of Pfizer among Individuals with Diabetes mellitus: A Systematic Review and Meta-Analysis		11:30 am -12:45 pm
2	Professor (Dr.) Pratap Kumar Sahu	School of Pharmaceutical Sciences, S'OA University, Bhubaneswar, India	Free radicals and neurodegeneration: Repurposing with Sartans		12:50 -1:35 pm
3	Dr. Marilou Vicente Tablizo	University of the Immaculate Conception, Philippines	A systematic review of the medicinal benefits of the phytochemical constituents of passion fruit (<i>Passiflora edulis</i>) in non-communicable diseases		1:40 - 2:25 pm

Vote of Thanks by Mr. Sumanta Sen & National anthem

SPECTROPHOTOMETRIC QUANTIFICATION OF NANDROLONE DECANOATE IN PARENTERAL DOSAGE FORM USING QUALITY BY DESIGN APPROACH

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Abstract

The present work deals with the development and validation of a novel, robust, precise and accurate spectrophotometric method, for the estimation of nandrolone decanoate in injections using the principle of Quality by Design (QbD). A fractional factorial design (FFD) was employed for initial parameter screening. Additionally, the filtered variables underwent central composite design (CCD) to assess the reliability and optimization of the method. Various statistical measures were analyzed to determine the suitability of the experimental data. Nandrolone decanoate shows an absorption maximum at 242nm using 0.1N HCl. Factor screening slitwidth and sampling interval were identified as critical method variables, which were further evaluated by a CCD. Good linearity was obtained for nandrolone decanoate in the range of 2-12 μ g/mL with $R^2=0.9995$. The method was found to be accurate with a good average % recovery (more than 100%). The developed method was validated as per ICH guidelines. Using QbD principles, the creation of a spectrophotometric technique was designed to incorporate quality into the process. The method proved to be resilient and appropriate for identifying nandrolone decanoate in pharmaceuticals.

Keywords: Nandrolone decanoate, Spectrophotometric, Quality by design, Validation

GHCTRP/OP/002

A REVIEW ON ANTIFUNGAL DRUGS

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Abstract

Nowadays, the majority of fungal infections, including candidiasis, can cause anything from a minor mucous membrane infection to fatal systemic mycoses. Due to the fastest increase in populations with impaired hosts, such as those with HIV/AIDS, candida infections pose a serious clinical challenge worldwide. recipients of organ transplants and chemotherapy patients. In addition, a dramatic rise in the number of elderly people who are vulnerable to fungal infections is anticipated in the next decades. Due to the eukaryotic structure of the cells, developing antifungal medications for these issues is more challenging than developing antibacterial medications. Therefore, there are now only a limited number of antifungal medications available to treat the wide range of fungal infections. Additionally, the antifungal arsenal against fungal diseases has been constrained by the rise in antifungal resistance and unfavourable host effects.

HERBAL ANTITUSSIVE AND EXPECTORANT

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Abstract

Problems arising from the use of traditional opioid antitussive medications, such as codeine and codeine-like substances, to treat cough during many forms of respiratory illnesses. Potential sources of compounds with great antitussive efficacy and few undesirable side effects include medicinal plants. Specification of active ingredients is one of the most recent developments in modern phytotherapy. Accountable for the therapeutic action as well as their quantification in therapeutic medications, enabling the rationalisation of treatment, notably the dose and pursuit of unwanted effects. This topic aims to outline the current situation of plants used as expectorants and antitussives, as well as the active ingredients that have cough-suppressing properties.

GHCTRP/OP/004

A SYSTEMATIC REVIEW ON NEUTRACEUTICALS

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Abstract

A food or component of food that offers medical health advantages, such as the treatment and prevention of disease, or the promotion of health, is referred to as a nutraceutical. Nutraceuticals are used in the majority of nations to treat conditions including diabetes and heart issues. For the global market of nutraceuticals, the nutraceuticals market in India has been expanding at a compound annual growth rate of 20%. Nutraceuticals are crucial for treating any disorders. Probiotics, prebiotics, antioxidants, dietary fiber, PUFA, and polyphenols are a few forms of nutraceuticals. It aids in illness prevention and treatment. Blood loss related to antiplatelet activity can occur at doses between 800 and 1200 mg/d, and doses above 1200 mg/d can cause diarrhoea and weakness. The benefits of nutraceuticals in lowering cancer risk are recognised beyond just improved health outcomes. Turmeric, tomatoes, oranges, and other plants have been proven to have nutraceutical qualities.

**DESIGN, MOLECULAR DOCKING STUDY OF SYNTHESISED *N*-HETEROARYL
SUBSTITUTED GALLAMIDE DERIVATIVES AND THEIR
ANTIBACTERIALASSESSMENT**

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Abstract

A series of *N*-heteroaryl substituted Gallamide derivatives **3a-3g** were synthesised and the obtained structures were further confirmed by different spectral studies. For *in-vitro* antibacterial activity, the synthesised compounds were evaluated against three UTI (Urinary Tract Infection) bacterial strains including *Staphylococcus aureus*, *Escherichia coli*, and *Streptococcus pyogenes*. Furthermore, the designed compounds were docked with bacterial DNA gyrase and dihydropteroate synthase. All the compounds had shown good inhibition against *S. aureus* whereas compound **3e** has produced significant inhibition at 28 and 26 mm against *S.aureus* and *E.coli*, respectively. The MIC value of the conjugate **3e** and **3d** was 3.12 and 6.25 µg/mL against *S. aureus* and *E.coli*, respectively. Compound 3,4,5-trihydroxy-*N*-(4-(*N*-(5-methyl isoxazol-3-yl) sulfamoyl) phenyl)benzamide **3d** had shown the highest binding energy against both the targets along with good antibacterial action.

GOOD MANUFACTURING PRACTICES (GMPS): A REVIEW

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Abstract

Good Manufacturing Practice (GMP) is a set of regulations, codes, and guidelines for the manufacture of drug substances and drug products, medical devices, in vivo and in vitro diagnostic products, foods and quality control testing of pharmaceutical products. GMPs is that part of quality assurance which ensures that products are GMP is concerned with both production and quality control, Both industry and regulatory practices will need to be informed by the best techniques of risk assessment and management. The effective implementation of GMP requires extensive care and knowledge about the different components of GMP that should be incorporated form the inception of the manufacturing building and product development till the production.

ANTIBIOTICS RESISTANCE - A GLOBAL HEALTH CRISIS

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Abstract

From past many years antibiotics are used in the treatment of many diseases caused by microorganisms. But from last few decades some bacteria have evolved in such a way that they have become resistance to all of the current known antibiotics. Overuse and misuse of antibiotics have led to the development of antibiotic-resistant bacteria, which is now a global public health concern. Antibiotic-resistant infections can be difficult to treat and may require more expensive and toxic drugs, longer hospital stays, and result in increased morbidity and mortality rates. Additionally, the economic burden of antibiotic resistance is significant, costing billions of dollars each year in healthcare expenditures and lost productivity. Some bacteria like *Streptococcus pneumoniae* and staphylococci, organisms that are the causative agents for respiratory and cutaneous infections, and members of the *Enterobacteriaceae* and *Pseudomonas* families, organisms that cause diarrhoea, urinary infection, and sepsis, are now resistant to virtually all of the older antibiotics.

Keywords: Antibiotic Resistance, Antibiotics, Bacteria, Public Health

FORMULATION, CHARACTERIZATION AND EVALUATION: MICELLAR LOADED COMPLEX OF *CUMINUM CYMINUM* TO TREAT CAUSING DISEASE OF COVID 19 (RESPIRATORY INFECTION)

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Abstract

Corona viruses are a family of viruses that can cause illnesses such as the common cold, Fever, severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS), Cancer, Asthma etc. Respiratory infection (RTI) is a viral spreading disease and it transmits from individual to individual, particularly in youngsters and aged peoples. The treatments are available but have so many limitations. To treat RTI, the phyto-constituent antibacterial drug cuminaldehyde (*Cuminum Cyminum* L.) was selected but it exhibits low bioavailability, poor water-solubility and is rapidly eliminated from the body. To overcome these issues, novel drug delivery (nanoparticle) based micellar loaded complex

approach was adopted. In this study, the micellar (CM) was prepared by mixing of cuminaldehyde and soya lecithin using anti-solvent precipitation technique and further the micellar loaded complex (CMLC) was prepared by loading of micellar (CM) in aqueous solution of chitosan. The physical compatibility studies by DSC and FT-IR, demonstrated the confirmation of CMLC with soya lecithin and chitosan. The optimized CMLC and CM were irregular particle shapes and crystalline structures, with a mean particle size of 279.10 ± 0.02 nm, 296.24 ± 0.10 nm and zeta potential of -8.18 mV, -8.77 mV, respectively. The % entrapment efficiency and % drug loading of CMLC (72.13 ± 0.26 %, 06.46 ± 0.01 %) and CM (89.09 ± 0.20 %, 08.05 ± 0.19 %) was found efficiently. The *in vitro* release rate of CM (88.09 ± 0.41 %) was slower than CMLC (89.02 ± 0.06 %) in pH 7.4 phosphate buffer up to 24 h by diffusion process (Korsmeyer Peppas model). Furthermore, CMLC has shown the potent *in vitro* antioxidant activity, susceptible antibacterial activity and significant anti-inflammatory activity as compared to CM against stress, microbial infection (*S. aureus* and *E. coli*) and inflammation which were causable reason for the respiratory infections. CLMC has shown the significant bioavailability and more efficient hematological parameters value on rabbit blood against the incubation of bacterial organism. CLMC may have the effective potential to treat causing disease of COVID 19 i.e. RTI.

GHCTRP/OP/009

FORMULATION AND EVALUATION OF PHYTOSOME OF TURMERIC OIL FOR TOPICAL APPLICATION

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Abstract

In this study, we developed a nanoparticle based turmeric oil-phytosome drug delivery system (TOH) by combining of turmeric oil and soya lecithin to target the topical route. Turmeric oil exhibits poor oral absorption due to its limited aqueous solubility and extensive presystemic metabolism. To overcome these issues, phytosome drug delivery system was designed to improve the bioavailability and prolong the retention time of turmeric oil in the body. The TOH were prepared by utilizing of different molar ratio of 1:1, 1:2, 2:1 and 2:2 of turmeric oil and soya lecithin using anti-solvent precipitation technique and further evaluated by different parameters. The optimized phytosome was crystalline and irregular shapes, with a mean particle size of 150.76 ± 0.03 nm (-8.79 mV) and 92.05 ± 0.00 % entrapment efficiency. Differential scanning calorimetry and Fourier transform infrared spectroscopy confirmed the compatibility and the integrity of phytosome. The *in vitro* anti-microbial study was shown the significant ($P < 0.05$) inhibition against producible infections (*B. subtilis*; NCIM 2920 and *E. coli*; NCIM 2065). *In vitro* permeation study of topical gel of phytosome of turmeric oil through cellulose acetate membrane showed significant ($p < 0.05$) sustained release (93.09 ± 0.05 %) of turmeric oil up to 12 h compared to turmeric oil gel (74.04 ± 0.08 %). These results demonstrated that phytosome of turmeric oil has potential topical application as it can scavenge the free radicals and produce significant anti-inflammatory and anti-bacterial activities to treat skin diseases.

Keywords: Phytosome; Turmeric oil; Soya lecithin; *In vitro* studies; Topical gel.

A REVIEW ON PHARMACOLOGICAL PROPERTIES OF ACKEE (*BLIGHIASAPIDA*)

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Abstract:

It is evident that without nature life of human being is impossible. Herbal medicines are natural compounds obtained from plants' leaves, bark, roots, seeds, or flowers which can be used by the people for various medicinal purposes. Blighiasapida belonging to family *Sapindaceae*, is a woody perennial fruit tree. The crude extracts of various parts and pure isolates of this tree was reported to possess antioxidant, antimicrobial, antipsychotic, antidiabetic, antiulcer, antitumor and anti-inflammatory, antiatherogenic, antiaging, antiallergic, antithrombotic, and antimutagenic properties. This tree is also used in curing different diseases such as dysentery, malaria, backache, constipation, cancer, fever in young children, gonorrhoea, hernia, stomach pain, rheumatism, typhoid. This paper enumerates various traditional and medicinal utility of Ackee.

Keyword s: Blighiasapida, Ackee, pharmacological properties.

CRISPR CAS TECHNOLOGY IN DRUG DISCOVERY

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Abstract:

CRISPR–Cas systems an easily accessible and programmable tools for genome editing and regulation is leading to a revolution in biology. Paired with the rapid expansion of reference and personalized genomic sequence information, technologies based on CRISPR–Cas are enabling nearly unlimited genetic manipulation, which was Practically not possible before, including human cells. Although much attention has focused on the potential of CRISPR–Cas to cure Mendelian diseases, the technology also holds promise to transform the development of therapies to treat complex heritable and somatic disorders. This Review, discusses how CRISPR–Cas can affect the next generation of drugs by accelerating the identification and validation of high-value targets, uncovering high-confidence biomarkers and developing differentiated breakthrough therapies. We focus on the promises, pitfalls, hurdles of this revolutionary gene-editing technology.

ETHANOLIC LEAF EXTRACT OF FICUS RELIGIOSA IN ANTI ULCER : A REVIEW

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Abstract:

The ficus Religiosa also known as peepal and it is a traditional plant which are located near the temples in india for spirituality. This plant used in treatments and cure of diseases. Its consists different kinds of chemicals constituents like alkaloid tannins, phenols, saponins, sugars ,essential oils methionine, terpenoids, flavonoids, glycosides, proteins, separated amino acids ,volatile oil ,etc and it is also have different types of pharamacological properties anti-Parkinson's, anticonvulsant, anti-amnesic, anticholinergic, antidiabetic , analgesic, cytotoxic, anti-ulcer, wound healing, antioxidant, anti- asthmatic, reproductive antimicrobial, anti-parasitic,which are use in different kinds of diseases. Different part of ficus religiosa used in different diseases.Here we are studies the Antiulcer property of ficus religiosa with ethanolic extract of leaf (200-500mg/kg) on inducing stress ulcer in animal model and Ranitidine is standard drug .In results the ethanolic extract of leaf of ficus Religiosa is prevent ulcer and protect the gastric mucosa, gastric secretion and these are analysed in dose dependent manner .

Keywords: ficusreligiosa,ethanolic extract , leaf ,antiulcer ,different ,disease.

A REVIEW ON NOVEL CORONA VIRUS DISEASE 2019 (COVID-19): CURRENT PROGRESS, CLINICAL FEATURES AND BIOANALYTICAL DIAGNOSTIC METHODS

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Abstract

A new epidemic of acute respiratory viral pneumonia was discovered in central China at the end of 2019. The disease was given the name coronavirus disease 2019 (COVID-19), and the virus that caused this disease was known as severe acute respiratory syndrome coronavirus (SARS-CoV-2). So far, diagnostic methods have been focused on (a) human antibody detection, (b) viral antigen detection and (c) viral gene detection, the latter using RT-PCR being the most accurate approach. In this paper, we present a summary of the COVID-19 pandemic, clinical features and epidemiology and pathogenesis. Also, we focus on the recent advances in bioanalytical diagnostic methods based on various techniques for SARS-CoV-2 sensing that have recently published. Furthermore, we present the mechanisms, advantages and disadvantages of the most common biosensors for COVID-19 detection, which include optical, electrochemical and piezoelectric biosensors as well as wearable and smart nanobiosensors, immunosensors, aptasensors and genosensors

Keywords ;COVID-19 . RT-PCR . SARS-CoV-2 . bioanalytical . biosensors

GLOBAL HEALTH CHALLENGE

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Every country is facing some of the global health challenge and fighting to overcome from those challenges. When it comes to India, which is WHO region, also have health challenges and making the healthy people by some changes in health system and following Millennium Development Goals. The enormous disease burden and more health inequalities and that one in six person in the world are an Indian on the one hand, and the country's new economics and its logical capital in nation also overseas on the other hand, has created for global health challenge. Global health challenges nothing but facing problem in health system, and the new diseases in certain part of region or country making the people troublesome. India is the melting point of many country people. There is a lot of health information for India in the public field, even though the nature and feature could be improved. Like other developing countries the life expectancy has greater than before and also improved health has led to further economic welfare in India, the country is currently experiencing the three disease burden due to communicable (CD).

GHCTRP/OP/015

EXTRACTION, COMPLEXATION, PHYTOCHEMICAL INVESTIGATION & CHARACTERIZATION OF 99% METHANOLIC EXTRACT DERIVED FROM SEEDS OF *GLYCINE MAX*

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Abstract

Glycine max commonly known as Soyabean is a shrub of the family Fabaceae. It contains numerous bioactive phytochemicals such as phenolic acids, flavonoids, saponins, phytosterols and sphingolipids and possesses excellent immune-active effects in the human body. The reported pharmacological properties of soy and its phytochemicals include antioxidant, estrogenic, anti-diabetic, anti-hypercholesterolemic, anti-hyperlipidemic, anti-obesity, anti-hypertensive, anticancer, anti-mutagenic, hepatoprotective, anti-osteoporotic, antiviral, anti-inflammatory, immunomodulatory, neuroprotective, wound healing, antimicrobial, goitrogenic anti-skin aging and anti-photoaging activities. **Aim:** The present study has been designed to set standard pharmacognostical extraction method, complexation of compounds, qualitative evaluation through phytochemical screening, identification by TLC, physicochemical properties, solubility profile, total phenolic, flavonoid contents as well as analytical evaluation or characterization like UV & FT-IR of methanolic extract of *Glycine max*. **Result:** The final observations like physicochemical properties such as total ash value, LOD & pH were recorded.

Phytochemical screening showed the presence of alkaloid, saponin, carbohydrate, flavonoids, tannins, protein, gums and mucilage, fixed oils and fats. TLC as an identification test has been performed. Analytical evaluation like UV, FTIR, total phenol content & total flavonoid test have been done & the results were found significant.

Keywords: Glycine max, Ultraviolet, FT-IR, Total phenolic, flavonoid, LOD, Total Ash Value, Phytochemical screening.

GHCTRP/OP/016

EXTRACTION, CHARACTERISATION AND PHYTOCHEMICAL INVESTIGATION OF 95% ETHANOLIC EXTRACT OF CORDIA MYXA LEAVES

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Abstract

Cordia myxa (CM), the Assyrian Plum, is a valuable ethnomedicinal deciduous tree from Boraginaceous family. Traditionally cordia myxa parts such as fruits and leaves are used in chest and urinary tract infections, diabetes, diarrhoeas, dysentery, tuberculosis, liver and spleen disorders, chronic fever, malaria etc. because of increasing demand, maintaining quality standards is the need of the day. The present study is designed to set a standard pharmacognostical method for collection, extraction by using 95% ethanol through maceration. The phytochemical investigation, total phenolic and flavonoid content of the extract were examined by different methods. The analysis of bioactive compound present in the herbal extract involving the physicochemical properties, chromatographic technique like TLC as well as non-chromatographic techniques such as UV, FTIR were performed for effective analytical evaluation of the plant extract. final observations like physicochemical properties such as totalash value, acid insoluble ash, water soluble ash, alcohol extractive, water soluble extractive, loss on drying and pH were recorded. Phytochemical screening showed the presence of alkaloid, flavonoid, cardiac glycosides, saponin and steroid. TLC as an identification test has been performed. Analytical evaluation like UV, FTIR, total phenolic content and total flavonoid content tests were carried out and found significant.

Keywords: Cordia Myxa, Ultraviolet, FTIR, LOD, Total Ash value, Phytochemical screening.

GHCTRP/OP/017

THE CORRELATIVE RELATIONSHIP BETWEEN TUMOR NECROSIS FACTOR ALPHA (TNF- α) AND AUTOIMMUNE DISEASE

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Abstract

Tumour necrosis factor alpha (TNF- α) has more recently been shown to perform crucial additional roles as a pathogenic component of autoimmune disorders which was initially identified as a factor that contributes to the necrosis of tumours. Two distinct receptors that TNF- α hits to start signal transduction cascades. These pathways result in a range of biological responses, such as cell proliferation, differentiation, and survival. However, TNF- α signalling that is inappropriately or excessively activated is linked to chronic inflammation and may eventually result in the emergence of

pathological consequences including autoimmune disorders. TNF- α inhibitors are one of the potent therapeutic tools that have been created as a result of the expansion of knowledge about the TNF- α signalling mechanism and its application to the treatment of immunological illnesses. Currently, innovative TNF- α signalling inhibitors are being clinically tested, and clinically licenced TNF- α inhibitors have demonstrated notable potency in a number of autoimmune disorders. The effect of TNF- α signalling on autoimmune illnesses and its inhibitors, which are utilised as therapeutic drugs against autoimmune diseases, are briefly introduced.

Keywords: Tumour necrosis factor alpha, Autoimmune Disorder, Necrosis, TNF- α inhibitors, Inflammation, Cell Proliferation.

GHCTRP/OP/018

HERBAL PROTEINS AND THEIR USES TO TREAT MALNUTRITION

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Abstract

Herbal proteins aim to return the body to a state of natural balance so that it can heal itself. Examples of some of the herbal proteins are extracted from Echinacea to cure infection, Garlic to reduce the risk of heart disease, Ginger to treat nausea, motion sickness and *Hypericum perforatum* for anxiety and insomnia. Herbal proteins if used with proper knowledge, malnutrition or any other disease can be cured efficiently. Here, we will mainly focus on how malnutrition can be treated by herbal proteins. Malnutrition occurs when the body doesn't get enough nutrients and it causes due to poor diet, digestive conditions or another disease. Malnutrition can be treated among rural people, illiterate women, children by providing them knowledge about the herbal protein which we get from natural sources and which can treat malnutrition with very less or no side effects

GHCTRP/OP/019

STRESS MANAGEMENT IN PHARMACEUTICAL SECTORS

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Abstract

Every second person now a days is having stress and this is the one of the main reason which affect the person's personal and professional life. Today Indian Pharma Industry lives in a Volatile, Uncertainty, Complexity, and Ambiguity environment. To succeed in this environment, companies not only have to focus on their production but also have to monitor global trend and adapt them. For doing this companies need high performance of their employees. To achieve high performance, it is very important to cope with Stress related to Job Performance. Thus it becomes important to develop Emotional Intelligence. The pharmaceutical industry globally is based on knowledge and human resources. Thus this study shows how one can reduce the stress level in their life which helps employees to increase their job performance. This literature review provides to all pharmacy community & organisations with effective and successful stress management strategies to support pharmacists and pharmacy staff, hence results in the high performance of employees.

GHCTRP/OP/020

THE CLINICAL EFFICACY AND SAFETY OF TULSI IN HUMANS

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Abstract

Tulsi, also known as holy basil, is native to India and is highly valued for its medicinal properties in the Ayurvedic and Siddha medical systems. Many in vitro, animal, and human studies support tulsi's many therapeutic properties, including adaptogenic, antibacterial, anti-inflammatory, cardioprotective, and immunomodulatory effects; however, no systematic reviews of human research on tulsi's clinical efficacy and safety have been published to date. A total of 24 studies that reported therapeutic benefits on metabolic diseases, cardiovascular disease, immunity, and neurocognition were identified. All investigations found that the clinical outcomes were favourable, with no research reporting any substantial adverse effects. It support traditional applications and indicate that tulsi is a beneficial treatment for lifestyle-related chronic diseases such as diabetes, metabolic syndrome, and psychological stress.

Keywords- Ayurvedic, Clinical efficacy, Immunity, Siddha, Holy basil.

GHCTRP/OP/021

ANTICANCER EFFECT OF URTICA DIOICIA IN BREAST CANCER

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Abstract

Urtica dioica belonging of family urticaceae. It is a also Medicinal plant found in kashmir to kumaon Region Uttarakhand. It presence various phytochemical like phenolic Acid, flavanol, bioflavanoid, flavan3-ols etc. Researchers have reported about 30 species with 47 general and 1,300 species As usually as a treat different disease. The study is present into antiproliferative capabilities of urtica dioica on breast Cancer. In vitro and vivo also performed number of annexin positive cell was higher in urtica dicoica treated control cell. Rats treated with urtica dicoica had greater expression of casepase P53 protein when compared to untreated rat meat tumor volume Inhibitor ratio in urtica dicoica group was 38 percent. These finding suggested urtica dicoica may have anti Tumoral properties in treatment of breast Cancer, urtica dicoica and its breast Cancer. Urtica dioica and its phytoconstituents were reported for various Pharmacological Activities. A through review will also help to avoid repetition of future research on this plant. This review Also provide information urtica

dicoica useful Artical for reaseacheson plant chemical constiuent and Biological activities are present in this review such that future drug.

Keywords: U D (Urtica Dioica) , AC (Antiproliferative capabilities)

GHCTRP/OP/022

FORMULATION OF SILVER NANO PARTICLES FROM PLANT EXTRACTS OF GALLS OF *QUERCUS INFECTORIA* AND THEIR CHARACTERIZATION USING VARIOUS ANALYTICAL METHODS

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Abstract:

The synthesis, characterization and application of biologically synthesized nanomaterials have become the prime area of study in nanotechnology. Green synthesis of nanoparticles using plant extracts is being explored globally owing to the absence of disadvantages associated with conventional methods. This study reports the synthesis of silver nanoparticles using the extract of galls of *Quercus infectoria*, characterization of the synthesized nanoparticles. Ultraviolet-Visible (UV-Vis) spectroscopy confirmed the synthesis of nanoparticles. X-Ray Diffraction (XRD), Fourier Transform Infrared Spectroscopy (FTIR) and Scanning Electron Microscopy (SEM) studies revealed the characteristics of the nanoparticles synthesized. AgNPs may be produced inexpensively, sustainably, and environmentally responsibly by utilizing technologies that extract the plant material. The phytochemical components that are contained in plants make them a better, non-toxic, and more cost-effective alternative to both physical and chemical approaches. Because the size and shape of AgNP depend on their synthesis method and technique, and because the efficacy and toxicity of AgNP depend on both size and shape, synthesis methods and techniques have recently become the focus of a significant amount of research attention. The wound healing activity and other pharmacological potential effect of the nanoparticles prepared from galls of *Quercus infectoria* can be further validated *in vivo*.

Key words: Quercus infectoria, Green synthesis, AgNP, FTIR, SEM, XRD

GHCTRP/OP/023

CARBAMAZEPINE USES AND ITS INTERACTION

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Abstract

Carbamazepine (CZ) is an anticonvulsant drug is used for management of seizure disorders. It is a mood stabilizer to treat bipolar disorder with manic and mixed episodes. It is also approved for use for the treatment of trigeminal neuralgia, temporal lobe epilepsy and generalized tonic-clonic seizure and certain mental disorders. CZ metabolism occurs in the liver, by CYP450 3A4 enzyme. The main metabolite is carbamazepine-epoxide. The metabolism pathway of CZ includes oxidation, deamination, hydroxylation, and esterification with glucuronic acid. CZ is highly bound to plasma proteins (75-80%). Bioavailability ranges from 75-85%. The rate or extent of absorption was not be affected by food. It exerts effects by decreasing dopamine turn over, enhancement of brain γ -aminobutyric acid (GABA) levels via multiple actions of synthesis and degradation, and modulation of other neurotransmitters, voltage sensitive Na⁺ channels, extra hypothalamic neuropeptides, secondary messenger systems, and neuro protection. CZ accelerates the metabolism of phenytoin, phenobarbital, primidone, valproic acid, and warfarin. The drugs such as phenytoin, phenobarbital, and primidone increase the hepatic metabolism of CZ. The drugs like triacetyloleandomycin, erythromycin, propoxyphene, isoniazid, and cimetidine inhibit metabolism of CZ. The most common side effects are nausea, vomiting, constipation, diarrhea, loss of appetite, sedation, dizziness and ataxia. Serious side effects may include skin rashes, decreased bone marrow function and confusion.

Keywords: Carbamazepine, Seizure disorders, Metabolism, Liver, Bioavailability, Ataxia

GHCTRP/OP/024

**EFFICACY OF NIRMATRELVIR AND RITONAVIR COMBINATION (Paxlovid®)
TREATMENT FOR COVID-19 IN ADULTS: A SYSTEMATIC REVIEW AND
META-ANALYSIS**

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Abstract

The coronavirus disease (COVID-19) pandemic has not been completely controlled. Hence, studies on many antiviral drugs were done to assess its efficacy against COVID-19. On this note, this study conducted systematic review and meta-analysis to investigate the improvement in the hospitalization rates and among COVID-19 patients with the oral antivirals nirmatrelvir plus ritonavir combination (Paxlovid®). The researcher searched scientific and medical databases, such as PubMed, Google scholars, Web of Science, Scopus, Embase and Cochrane Library for relevant articles and screened the references of retrieved studies leading to a total of eight studies that fits in the criteria. Based on systematic review, the antiviral drug (Paxlovid®) observed low rate of hospitalization among outpatients diagnosed with COVID-19. A Meta-analysis provides Cochran's Q = 26.361 with p -value = <0.001 based on hospitalization rates. These indicates that the individual studies' relevant risk has statistically evaluated the different effect size regarding the overall relevant risk. It suggests that there may be differences underlying the results of the studies. The I^2 indicates less heterogeneity in results, which means that's better and less variability between the studies. The studies have established an I^2 = 92% based on hospitalization rates and thus, there is observed heterogeneity in the studies selected for testing. Overall results signifies that while placebo group and experimental group have continuously provided different effects on the patients, but Paxlovid® was found to be a potentially effective antiviral drug for COVID-19.

Keywords: Pharmacy, COVID-19, Paxlovid®, Efficacy, Hospitalization, Relative Risk

A SYSTEMATIC REVIEW OF THE MEDICINAL BENEFITS OF THE PHYTOCHEMICAL CONSTITUENTS OF PASSION FRUIT (*Passiflora edulis*) IN NON-COMMUNICABLE DISEASES

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Abstract

Every year, non-communicable diseases (NCDs), including diabetes, cancer, chronic respiratory illnesses, and nervous system diseases, claim 41 million lives. As the World Health Organization (WHO) notes, prevention of NCDs is critical and essential, and investing in better management is the other key component of the NCD response. There is a lack of a readily accessible systematic review on the medicinal benefits of the phytochemical constituents of passion fruit (*Passiflora edulis*) in NCDs. A focus on *Passiflora edulis* is crucial even though over 45,000 therapeutic and hazardous plant species are identified globally since its documented efficacy, as shown in peer-reviewed published scientific publications, is easily accessible online. The studies included in this systematic review utilized the Point of Interest, Intervention, Comparator, and Outcome (PICO) framework and the eligibility criteria. The database search identified 1,050 studies from Google Scholar, PubMed, Science Direct, and Research Gate. The screening procedure removed 97 duplicates and 830 unrelated studies. There were 20 studies identified that did not satisfy PICO, 51 were not eligible; 33 papers were not accessible; and 19 articles qualified for systematic review. The systematic review showed that phytochemicals such as phenolic compounds and flavonoids are the most widely detected in *Passiflora edulis*. These compounds are responsible for the medicinal benefits of NCDs, such as cardiovascular disorders, diabetes mellitus, asthma, cancer, and neurologic disorders, such as anxiety and depression. Based on the systematic review, the plant *Passiflora edulis* possesses antihypertensive, hypolipidemic, antiglycation, hypoglycemic, antineoplastic, antianxiety, and antidepressant activities compared to standard treatment or standard diet. This review may serve as an up-to-date reference on the potential of the said plant as it possesses medicinal benefits. Moreover, the results suggest that *Passiflora edulis* can be considered for drug or functional food development.

Keywords: Pharmacy, *Passiflora edulis*, Flavonoids, Phenols, Antiglycation, Antineoplastic, Antihypertensive, Hypoglycemic, Hypolipidemic Anxiolytic, Antidepressant

GHCTRP/OP/026

ANTIBODY TITER DUE TO COVID 19 VACCINATION OF PFIZER AMONG INDIVIDUALS WITH DIABETES MELLITUS: A SYSTEMATIC REVIEW AND META ANALYSIS

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Abstract

This study aimed to systematically review and meta-analyze the available evidence on the antibody titer due to COVID-19 vaccination of Pfizer among individuals with diabetes mellitus. This study conducted a comprehensive search of electronic databases and preprint servers from 2021 to 2022 to identify studies reporting antibody titers after Pfizer COVID-19 vaccination in individuals with diabetes mellitus. This study used random-effects meta-analyses to estimate the mean difference in antibody titers between individuals with and without diabetes. There were 5 studies involving

participants with and without diabetes mellitus who were inoculated with at least three doses of Pfizer BNT162b2 vaccine. These studies were conducted by Ali (2021), Papadokostaki (2021), Watanabe (2021), Jahn (2021), and Watanabe (2022). The meta-analysis showed that individuals with diabetes had significantly lower antibody titers compared to those without diabetes (mean effect size is -0.500 with a 95% confidence interval of -0.769 to -0.231). The I^2 test of 51.46 suggested moderate heterogeneity across the studies. The systematic review and meta-analysis indicate that individuals with diabetes mellitus have a reduced antibody response to Pfizer COVID-19 vaccination compared to those without diabetes. This finding has important implications for the design and implementation of vaccination strategies for this vulnerable population.

Keywords: Pharmacy, Seroconversion, Comorbidities, SARS-COV2, Philippines

GHCTRP/OP/027

EFFICACY AND SAFETY OF MOLNUPIRAVIR IN ADULT PATIENTS WITH COVID-19: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Abstract

In the pandemic era, Molnupiravir is the first oral antiviral drug to be recommended for COVID-19 therapy. Several studies from various countries have been conducted to evaluate its efficacy and safety, including randomized controlled trials (RCTs). This research was focused on the systematic review and meta-analysis of the efficacy and safety of Molnupiravir as compared to placebo in hospitalized and non-hospitalized adult patients. Data were selected using the PRISMA framework from a range of databases, including PubMed, Google Scholar, ScienceDirect, and other search engines. Out of 1,910 articles, eight researches met the inclusion and exclusion criteria for the systematic review. These studies were conducted by Arribas (2021), Wong (2022), Zou (2022), Bernal (2022), Caraco (2021), Fischer II (2021), Khoo (2022), and Sinha (2022). The findings of the study implies that molnupiravir is ineffective and is associated with a reduced risk of hospitalization and mortality. While for its safety, the risk ratio was equal to one which indicates that it is not associated with a significantly higher risk of adverse events compared to placebo. Some of the adverse effects that have been reported on its use include diarrhea, nausea, and dizziness. The outcome of this research have emphasized the importance of pharmacists in its role on patient safety and medication management.

Keywords: *Pharmacy, hospitalization, mortality, adverse effects, COVID-19, Philippines*

GHCTRP/OP/028

NANOSPONGES: AN EFFICIENT APPROACH FOR DRUG DELIVERY

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Abstract

In recent years, nanosponges (NS), which administer medications through nanotechnology, have grown significantly. Nanosponges are a brand-new, nanosized medication delivery device that perfectly combines engineering and science in medicine to address the existing state of treatment for a number of fatal diseases. They are three-dimensional, solid, porous, and biocompatible nanoparticulate structures that have been used as drug carriers for various medications. They can address issues with solubility, absorption, penetration, bioavailability, in-vivo stability, sustained and targeted distribution, and therapeutic efficacy. They can be made to inhibit protein and drug degradation, extend controlled drug release, and direct drugs to certain locations. The goal of this review is to characterise different NS synthesis processes and discuss them. Due to their advantages, NS have not only been researched for their potential in the pharmaceutical business but are also widely used in allied disciplines, particularly in the purification of water.

Keywords: Nanosponges, solubility enhancement, drug delivery.

GHCTRP/OP/029

IMPLEMENTATION OF ENHANCED DEEP CNN MODEL FOR COVID DETECTION

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Abstract:

A pre-processing model is proposed to remove noise from a dataset before training a network. To enhance the learning process's effectiveness, the Improved Trimmed Median Filter (ITMF) is used as a pre-processing tool to remove noise from the dataset, which has been overlooked in the existing literature. The model's accuracy is tested by training, validating, and testing it with the respective dataset. The accuracy of the model increases significantly from 0.9401 to 0.9841 when the dataset is processed through ITMF. Moreover, synchronization between the training and validation graphs is established when the dataset is processed through ITMF, which is not present when the dataset is not processed. This signifies a significant improvement in accuracy, validating the effectiveness of the noise removal scheme before the Deep Learning model. The proposed technique can enhance the accuracy of detecting other acute diseases. The model can assist medical practitioners in detecting the disease accurately, efficiently, and swiftly, potentially preventing its rapid spread. In conclusion, this model can improve disease detection and control, leading to better patient outcomes and public health.

Keywords: Deep Learning, Transfer Learning, COVID, Noise removal, Disease Detection

GHCTRP/OP/030

MODIFIED STARCHES-FUTURE EXCIPIENTS IN POORLY WATER-SOLUBLE DRUGS

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Abstract

Excipients play a great role in ensuring that pharmaceutical dosage form meets the required specifications of quality approved by the relevant authorities. Starches are the most widely used

excipients in dosage form development, but their use is enhanced by several modification methods, all aimed at restructuring the starch granules, thus ensuring that the reactive polymers are accessible to reactants. The most common approaches to chemical modification of starches for pharmaceutical use include oxidation, esterification and etherification, which are employed to optimize the structural and nutritional properties for targeted applications. Superdisintegrants are those substances that encourage the quick breaking down with a lesser amount contrasted with disintegrants. The quick disintegrants tablets are set up by utilizing suitable polymers which rely on the physico-chemical properties of drugs and excipients, for example, drug and polymer compatibility, hardness and thickness of tablet, nature of drug and excipients, PH of drug and release parameters of drug formulation. Superdisintegrants are the vehicles added to tablet formulation to advance the breaking of tablets and capsules into small microparticles in aqueous media resulting in to increase in the surface area and promote quick drug release. The disintegrants have a significant capacity to oppose the efficacy of tablet binders and compression forces to form the tablet. Finally enhancing the solubility and dissolution studies by using modified starch.

GHCTRP/OP/031

OBESITY: A GLOBAL EPIDEMIC

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Abstract

Obesity is most common health problem becoming an epidemic on a global scale. As per *The World Health Organization* (WHO), obesity is an over fat accumulation which influence human health. The word obesity comes from the Latin word **obesitas** which means stout, fat, or plump. Medically, obesity is a condition in which excess body fat has accumulated to such extent that it may have an adverse effect on health, leading to reduced life expectancy and/or increased health problems. More quality national obesity prevalence data are urgently needed but it is clear that rates are already high and increasing in most parts of the world. Current estimates of the global prevalence exceed 250 million.

GHCTRP/OP/032

EFFECT OF FORMULATION VARIABLE ON LOVASTATIN MICROBEADS BY IONIC GELATION METHOD

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Abstract

Novel drug delivery system has been reported to enhance the solubility, efficacy, bioavailability profile to elicit enhanced pharmacological effect. The goal of the present work was to evaluate the preparation of microbeads with alginate polymer by ionic gelation method in order to improve the solubility and dissolution characteristics of the poorly soluble lovastatin. Ionic gelation method was

applied using sodium alginate as cationic agent and calcium chloride (CaCl_2) as anionic agent. We have added polyvinyl alcohol (0.5% w/v) to Sodium alginate (3.0 % w/v) and polyvinyl pyrrolidone (2% w/v) to Calcium chloride (CaCl_2) (1% w/v). The prepared microbeads were evaluated in terms of drug polymer interaction (FTIR), morphology and surface structure (SEM), drug content and drug entrapment and In-vitro drug release. The results showed significantly enhanced drug-loading, encapsulation efficiency and release characteristics with use of PVP and PVA.

Keywords: Lovastatin, Ionic gelation method, PVP, PVA, Sodium alginate

GHCTRP/OP/033

FORMULATION AND EVALUATION OF POLY HERBAL GEL

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Abstract

Acne is a common skin problem associated with the microbial infection and needs antimicrobial agents for the treatment. Natural products containing lemon juice as antimicrobial agents are undoubtedly a growing trend. The present work aimed to formulate and evaluate a polyherbal gel using lemon juice for the treatment of acne, a disorder of the skin in which hair follicles and sebaceous glands are blocked, causing inflammation and redness of the skin. Lemon juice was collected and formulated into a gel using Carbopol 940, triethanolamine, and propylene glycol as the gelling agent, viscosity modifier, and pH modifier, respectively. The gel was evaluated for its antimicrobial properties against *Staphylococcus aureus*, *Escherichia coli*, and *Candida albicans*. Antimicrobial agents, such as gentamycin and fluconazole, were used as the standards. The developed formulation showed promising zone of inhibition. The gel was further evaluated for its physicochemical properties. The formulation showed a promising effect on acne together with the additive effect of lemon juice on skin.

Keywords: Lemon juice, Carbopol 940, polyherbal gel, acne

GHCTRP/OP/034

STABILITY OF SODIUM NITROPRUSSIDE AND SODIUM THIOSULFATE 1:10 INTRAVENOUS ADMIXTURE

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Abstract

Sodium nitroprusside (NPS) is a potent vasodilator used in critical care and peri-operative patients. Due to its chemical composition and metabolic pathways, it has the potential to cause cyanide and thiocyanate toxicity.¹⁻² Patients with compromised renal function are also at risk for toxicity since both cyanide and thiocyanate are cleared by the kidneys. As a consequence of a potentially dangerous toxicity profile, nitroprusside has fallen out of favor with prescribers at our institution. Alternative agents, such as nicardipine and clevidipine, are substantially more expensive than nitroprusside, and nicardipine does not lower blood pressure as quickly as nitroprusside.³ Reducing the risk of toxicity

with nitroprusside may provide prescribers with a safe, effective, and economical choice to control blood pressure in critically ill patients. This study was designed to determine chemical stability, via a high performance liquid chromatography (HPLC) assay, and physical stability via visual inspection of a 1:10 nitroprusside and thiosulfate intravenous (IV) admixture. The economic consequence of a shift in utilization from higher cost alternative therapies was also considered.

GHCTRP/OP/035

IONTOPHORESIS : A REVIEW

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Abstract

Iontophoresis is the Process of increasing the Penetration of drugs into the skin by an application of an electric current. This technique facilitates movement of ion across a membrane under the influence of an externally applied potential a difference is one of the most promising Physical Penetration enhancing method. The goal of delivery system is to get optimal Therapeutic management. The reason behind using the technique is the capability of this method to increase the systemic delivery of high molecular weight compounds. Also improve systemic bioavailability ensuring from by passing the first pass metabolism. Iontophoresis process is beneficial for swelling & Edema Inflammation, muscle spasms, scars Tissue, calcium deposit in body. This review briefly describes the history of iontophoresis and discussion of factors which affect the iontophoretic drug delivery

GHCTRP/OP/036

HERBAL COSMETICS : A REVIEW

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Abstract

Herbal cosmetics are a new category of health and beauty aids that combine the advantages of herbal substances with the beauty, smoothness of the skin, and delivery methods of cosmetics. Since the beginning of time, people have been practising the science of altering appearance. Because herbs have so many advantageous qualities, including sunscreen, antiaging, moisturising, antioxidant, anticellulite, and antimicrobial effects, they have been used in maintaining and enhancing human beauty. Herbal cosmetics have a lower toxicity profile, are milder, and biodegrade more quickly than synthetic cosmetics. Research is being done to create fresher methods to improve these qualities. It has been established through ancient literature like the ayurveda that Indians have used herbs for moisturising, anti-aging, and cosmetic purposes.

TOXICOLOGY STUDY OF THE EFFECTS OF POISONS

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Abstract

Toxicology, also known as "the science of poisons," is the study of poisons' chemical and physical characteristics, as well as their physiological or behavioural impacts on living things. It also includes the creation of protocols for treating poisoning as well as qualitative and quantitative methods for analysing poisons. Studies on toxicology provide concrete proof that a person's illness was brought on by exposure to a substance. Toxicology can offer factual data on the elevated risk of getting a disease at any particular dose and aid in the exclusion of other disease risk factors. Toxicology has a fairly broad range of applications, falling into three main categories: forensic (intoxication, diagnosis, and treatment), economic (medicines, food, and food additives), and environmental (pollution, residues, industrial hygiene).

GHCTRP/OP/038

BOX-BEHNKEN DESIGN ASSISTED FORMULATION AND POST COMPRESSION EVALUATION OF ZOLMITRIPTAN SUSTAIN RELEASE MATRIX TABLETS

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Abstract

To develop and improve a few factors that affect the production of Zolmitriptan sustain release matrix tablets using the direct compression technique. To optimise and develop Zolmitriptan sustain release matrix tablet formulation, a three-factor, three-level Box-Behnken design was used. The design proposed 17 formulations with varying binder concentrations (X1), diluent concentrations (X2), and lubricant concentrations (X3), and the effects on tablet hardness (Y1), thickness (Y2), and weight variation were monitored (Y3). The flow properties of all powder blends ranged from good to excellent. Binder concentration had a direct effect on hardness (Y1) (X1). Diluent concentration (X2) influenced tablet hardness (Y1) and thickness (Y2), whereas lubricant concentration (X3) influenced tablet hardness (Y1), thickness (Y2), and weight variation (Y3). As a result, the Box-Behnken design proposed an optimised formula of 17.26 mg (X1), 42.69 mg (X2), and 3.96 mg (X3). Finally, the percentages of prediction error for Y1, Y2, and Y3 were 0.60, 2.79, and 3.52%, respectively. When compared to other formulations, the F7 formulation controls drug release for a longer period of time than 8 hours. As a result, F7 was chosen as the best formulation. The results show that ethyl cellulose, by forming a matrix, slows the release rate of the drug, and the tablet made with ethyl cellulose can be used as a sustained release dosage form. Zolmitriptan sustain release matrix tablet formulation has been developed and optimized successfully using Box-Behnken design and has also been manufactured efficiently using direct compression technique.

Keywords: sustain release matrix tablet, Box-Behnken experimental design, Direct compression, Zolmitriptan, Antimigrane.

A COMPLETE REVIEW ON HELIOTROPIUM INDICUM & IPOMOEA AQUATICA

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Abstract

Ipomoea aquatica and *Heliotropium indicum* are two medicinal plants that have been traditionally used for various purposes in different parts of the world. Both plants have been investigated for their potential health benefits, particularly in relation to their antioxidant, anti-inflammatory, and anti-cancer properties. *Ipomoea aquatica* has also been shown to have anti-diabetic properties and to be a rich source of nutrients. However, caution should be exercised with the consumption of both plants due to their potential toxicity, particularly in the case of *Heliotropium indicum*, which contains pyrrolizidine alkaloids that can cause liver damage and other toxic effects if ingested in large amounts over a prolonged period. Further research is needed to fully understand the health benefits and risks associated with the use of both plants and to establish their safety and efficacy.

GHCTRP/OP/040

A REVIEW ON CANCER THERAPY

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Abstract

Now a day's cancer is the extremely conventional life threatening disease which is spreading all over the world due to current Lifestyle. Cancer is a genetic jumble that outcomes from genetic or epigenetic rotation in the somatic cell and has abnormal cell growth which may infect to the other body parts.

In 2018, 18 million cancer was catalogued globally in which 9.5 million cancer cases in man, 8.5 million in women and 9.6 death, where recorded in the same year. The impact of cancer is boosting significantly day by day. Tobacco is 22% responsible for causing cancer, 15% cancer is caused due to some infection like HIV, hepatitis B and 10% is due to poor diet, obesity, excessive intake of alcohol etc. Now a day's a lot of research is going on precision medicine for a better future of cancer treatments. Here we figured out some common therapies are given to patient's like chemotherapy, radiation therapy, immunotherapy, surgery and hormone therapy. Stem cell transplant is also the best therapy for cancer but it given after the common therapy to recover the patient from blood loss and help in making the patient healthy.

GHCTRP/OP/041

UV SPECTROSCOPIC DETERMINATION OF TROSPIMUM CHLORIDE IN PURE AND ITS CAPSULE DOSAGE FORM

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Abstract

For the determination of Trosipium Chloride in pure formulations and its pharmaceutical formulations, a simple UV-spectrophotometric method was developed. Trosipium Chloride exhibited maximum absorption at 280 nm in ethanol and obeyed linearity in the concentration range of 10-70 µg/ml. The method proposed was validated statistically. With good accuracy, all the proposed methods are simple, selective, reproducible, sensitive and precise. Some of the methods were proved to be superior to most of the reported methods. Many of these suggested prediction methods for chosen drugs, such as Trosipium Chloride, have been successfully implemented either in bulk or in prescription formulations. The suggested methods can be used in bulk and prescription dosage formulations as alternative methods to the recorded ones for the routine determination of selected drugs in the sample.

Keywords: Methanol, Capsule, UV Spectroscopy, Trosipium Chloride

GHCTRP/OP/042

ROLE OF AMORPHOUS SOLID DISPERSIONS IN ENHANCING SOLUBILITY AND DISSOLUTION RATE OF POORLY SOLUBLE DRUGS

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Abstract

Amorphous solid dispersion (ASDs) has become an emerging strategy to improve the poor solubility and low bioavailability problems encountered in the formulation of most of the existing and new drug candidates because of the supersaturated state that is acquired during its dissolution. The high thermodynamic activity of the drug in the supersaturated state contributes to the increased absorptive flow across a membrane. The goals of this article are to examine the components responsible for stabilising solutions, the mechanisms of drug uptake from ASD solutions, and the distribution of drugs within these complex systems, as well as the impacts of excipients. The significance of these findings for the development of amorphous solid dispersions has also been highlighted (ASDs). A better understanding of these systems in general will help in development of an effective amorphous solid dispersion system and the analysis of the ASDs' drug delivery mechanism.

Keywords: amorphous solid dispersions; advanced drug delivery; improved solubility; BCS class II/IV; enhanced bioavailability

GHCTRP/OP/43

RECENT ADVANCEMENT IN VACCINATION - A REVIEW

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Abstract

One of the biggest advances in public health is the development of vaccines. Smallpox and polio have been eradicated in the United States thanks to the implementation of effective vaccination programmes, which have also made previously frequent illnesses like diphtheria, tetanus, measles,

and invasive Haemophilus influenzae rare occurrences. There are obstacles to timely and thorough vaccination in the United States, notwithstanding the huge success of vaccination in decreasing the burden of infectious diseases. In instance, some people may not consider these diseases to be a threat to themselves or their children due to the near or complete absence of these illnesses. As a result, people may be less likely to vaccinate themselves or worry more about the safety and effectiveness of vaccines than they would if the deadly consequences of these diseases were better known.

GHCTRP/OP/44

ANALYTICAL METHOD DEVELOPMENT AND VALIDATION OF RANOLAZINE IN BULK AND PHARMACEUTICAL DOSAGE FORM BY RP-HPLC

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Abstract

A simple, economical, specific, accurate, precise and validated reverse-phase high-performance liquid chromatography (RP-HPLC) method has been developed for the study of Ranolazine in the pharmaceutical dosage form (tablet). The chromatographic separation was achieved on C-18 column (250 mm x 4.6 mm, 5 μ particle size) at 25°C (room temperature) using mobile phase of Buffer (6.80 gm potassium dihydrogen ortho-phosphate in 1000 ml water, pH adjusted to 4.0 with Ortho Phosphoric Acid and sonicated for 5 min.): Acetonitrile (ACN) (20:80 v/v) at flow rate 0.6 ml/min. Quantification was achieved with a UV detector at 273 nm. The retention time of Ranolazine was found to be 3.01 min. The proposed method was validated according to ICH guidelines for assay study of Ranolazine tablets. The developed method was found to be good for successful separation for the determination of Ranolazine in its bulk and pharmaceutical dosage form.

GHCTRP/OP/45

THE SIGNIFICANCE OF MONITORING PHYSIO-CHEMICAL WATER PARAMETERS FOR ENSURING HUMAN HEALTH AND SURVIVAL

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Abstract

Water is major constituent of life and water quality is an important parameter for human consumption for maintaining health and environmental sustainability. The detection of water parameters in time intervals is need of the era as industrialization and urbanization is at its peak. It is important to analyze different physical, chemical and biological parameters such as turbidity, temperature, hardness, chloride, pH, sulphate, BOD etc. Even testing of toxic heavy metals is also a serious concern as these heavy metals like As, Cr, Cd, Pb etc. produces chronic and poisonous diseases in human as well as animal. The objective of this paper is to review of the various pollutants present in water and also method of detection to analysis these parameter and their effects on human and animal health risk assessment. Standard guideline of different water analysis parameter is also studied and compare with water sample.

Keywords: Pollutant, water, human health, water parameter

INVESTIGATION OF ANTI-ULCER ACTIVITY OF ETHANOLIC EXTRACTS OF FLOWERS OF BUTEA MONOSPERMA IN PYLORUS LIGATED RATS

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Abstracts

The Ethanolic extracts of flowers of *Butea monosperma* Lam (EEBM) was studied for anti-ulcer activity. Ulcer was induced by pylorus ligation. EEBM were administered orally at a dose of 100,200,400mg/kg b.w. Ranitidine 20mg/kg b.w intraperitoneal was taken as a reference standard drug. Distilled water was served as control. The parameters studied were the volume of gastric juice, total acidity, pH, Ulcer index, ulcer score. In this model the gastric juice volume, total acidity, Ulcer index, ulcer score has significantly decreased ($p < 0.01$) and pH has significantly increased at ($p < 0.05$) in EEBM treated groups as compared to that of control group. All the doses of EEBM showed a dose dependent anti-ulcer activity as well as reduction in ulcer index as compared to that of control group. EEBM at 400mg/kg has more antiulcer activity than 200 and 100mg/kg. The result of the study indicates that the EEBM has a potential antiulcer activity.

Keywords: - Anti-ulcer, Pylorus Ligation, Total Acidity, Ulcer index, Ulcer score.

A BRIEF REVIEW TO THE PRINCIPLES OF DIAGNOSIS AND TREATMENT OF PRIMARY URETHRAL CARCINOMA

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Abstract

Primary urethral carcinoma (PUC) is a rare malignancy with limited treatment options. The purpose of this overview is to outline current strategies for this patient setting. Most of the current literature contains retrospective studies with small sample sizes and non-intuitive treatment instructions. The difficulty in treating this disease begins with diagnosis. Proximal (posterior) tumors may be missed until late in the disease because they are difficult to palpate during the physical examination. Early-stage distant tumors may also be misdiagnosed as infections, delaying treatment and potentially worsening prognosis. Our patient was diagnosed as having primary urethral cancer in the First Clinical Hospital of Yichang by cystoscopy and biopsy. Due to her advanced age, poor health and economic conditions, she refused to undergo radical surgery. Since there is no clear guideline for the treatment course of primary urethral cancer clinically, different hospitals have different surgical methods and postoperative concomitant treatments, resulting in different prognosis effects. Additional studies with standardized treatment approaches for patients, preferably in a randomized prospective controlled setting, are needed to advance evidence-based treatment approaches.

Keywords: Primary; urethral; carcinoma; treatment; methodology

**EXPLORATORY ANALYSIS FOR RISK FACTOR OF STROKE-ASSOCIATED
PNEUMONIA USING NEUTROPHIL-LYMPHOCYTE RATIO, MONOCYTE-
LYMPHOCYTE RATIO, AND PLATELET-LYMPHOCYTE RATIO**

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Abstract

A stroke is a cerebrovascular medical emergency. It is caused by the sudden loss of neurological function due to interruption to the blood supply. A serious and common complication of stroke is pneumonia. This review article deals with studies related to pathogenesis pathways that lead to the development of stroke-associated pneumonia, as well as different risk factors that increase the risk of developing pneumonia among stroke patients. It is found that dysphagia, higher neutrophil-lymphocyte ratio, were significantly associated with stroke-associated pneumonia. The article emphasizes on the importance of early screening for dysphagia among stroke patients and also discussed the importance of therapeutic and preventive measures that can be easily implemented to reduce pneumonia.

Keywords: stroke-associated pneumonia, dysphagia, neurological function, pneumonia, stroke etc.

GHCTRP/OP/49

**AN EXPLORATORY DATA ANALYSIS: CORRELATION AMONG OBESITY
CATECHOLAMINES AND ECHOCARDIOGRAPHIC PARAMETERS IN PATIENTS**

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Abstract

Obesity is a complicated chronic illness with a variety of underlying causes that can lead to excessive body fat and, in rare occasions, poor health. However, too much extra body fat could change how your body functions. These modest changes could worsen with time and could have an adverse effect on one's health. Catecholamines are produced by your adrenal glands, two little glands located above your kidneys. These substances are released by the body in reaction to mental or emotional stress. The three main catecholamine subtypes are epinephrine, norepinephrine, and dopamine. An echocardiography is used to analyze the thickness and movement of the heart wall, listen for abnormal heart sounds, inspect the heart valves, and determine the size of the heart. This article is used to analyze the data and discover trends, patterns, or check assumptions in data with the help of statistical summaries and graphical representations to the correlation of these three variables, obesity, Catecholamines, echocardiographic parameters.

Keywords: Obesity, Catecholamine, Echocardiogram Exploratory Data Analysis Etc.

RECENT ADVANCES IN TRANSDERMAL DRUG DELIVERY SYSTEMS USING POLYMERIC TECHNIQUE

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Abstract

One of the most effective approaches for novel drug delivery systems has been transdermal delivery. The possibility of liver malfunction and gastrointestinal tract irritation as adverse effects is low since drugs delivered by transdermal delivery systems bypass the gastrointestinal tract and avoid conversion by the liver. Other benefits of drug administration through the skin include the maintenance of a sustained rate of circulation, the advantages of a passive delivery mechanism, and dispersion. In order to distribute drugs transdermally, patches with various, specific layers are used. Many other types of patches, including medical plasters that are often applied to the skin for localised disorders, have recently received global approval. These patches are the earliest ancestors of the transdermal patches used today and date back to ancient China (about 2000 BCE). Many different pharmaceuticals can now be administered employing this beneficial sophisticated technology with the aid of efficient design, materials, manufacturing, and evaluation. This study analyses several polymer patch types, their benefits and drawbacks, as well as many studies on transdermal medication delivery techniques and the pros and cons of each approach. Also covered are various transdermal drug delivery systems using patches.

Key words: Transdermal delivery, Gastrointestinal tract, Novel drug delivery systems, Polymeric technique

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BOX-BEHNKEN DESIGN APPLICATION TO OPTIMISE A METHOD FOR THE VALIDATION OF REMOGLIFLOZIN AND METFORMIN IN BULK AND PHARMACEUTICAL FORMULATION

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Abstract

Recently, a new formulation containing Remogliflozin Etabonate (REMO) and Metformin HCl (METF) for the treatment of type 2 diabetes was approved. In order to screen the variables and improve the chromatographic conditions, the Box Behnken design (BBD) was used. All of the responses (K1, RS (1, 2) and S (1, 2), as well as tR2) are significant according to an ANOVA made for a 2k factorial outline, and the p-value was less than 0.05. FDS, perturbation plots, and response surface models were used to show how chromatographic parameters affected results. The Chromatographic separation was attained isocratically on a C-18 column by using Methanol, ACN, 0.01mM KH₂PO₄ at pH 3.372 ± 0.5 (47.075:10:42.925 % v/v), Flow rate of 2 ml/min. The detector's wavelength was set to 243 nm. Additionally, RP-HPLC techniques for REMO and METF showed good linearity in the ranges of 5–15 g/mL and 20–60 g/mL, respectively. The assay was found to be 99.34% and 100.02% for REMO and METF respectively. The correlation coefficient was found to be 0.998. The proposed methods were simple, accurate, precise, and rapid. Therefore, the developed

method can be used on a regular basis to analyze the fixed dose combination of Remogliflozin Etabonate and Metformin HCl formulations.

Keywords: RP-HPLC, p-value, Box Behnken design, Chromatographic separation.

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EGF-CONJUGATED BIO-SAFE LUTEOLIN GOLD NANOPARTICLES INDUCE CELLULAR TOXICITY AND CELL DEATH MEDIATED BY SITE-SPECIFIC RAPID UPTAKE IN HUMAN TRIPLE NEGATIVE BREAST CANCER CELLS

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Abstract

WHO listed breast cancer as the most prevalent form of cancer in recent times. Triple negative breast cancer (TNBC) is its deadliest sub-type characterized by high rate of metastasis and poor prognosis, as it lacks three important therapeutic targets like progesterone, estrogen and HER-2 receptors. This fatal variant exhibit over-expressed epidermal growth factor receptor in 45-70% of infected patients. The present work explores a strategy to target this receptor with flavonoid (luteolin)-conjugated gold nanoparticles (LuAunps) synthesized through a facile and fast ultra-sonication assisted route. Synthesized nanoparticles exhibited a diameter of 30.23 ± 9.96 nm in TEM and possessed high stability. The particles showed a characteristic plasmonic resonance at 541 nm measured in UV-Vis spectroscopy. Spherical particles with face centered cubic crystalline structure were observed through HR-TEM, SAED and XRD analysis. Synthesized nanoparticles exhibited significant cytotoxicity (IC₅₀ value of 2 µg/mL) and induced cell death in MDA-MB-231 TNBC cells. Confocal microscopy confirmed rapid localization of targeted nanoparticles in the nucleus of cancer cells leading to its improved performance. Cell cycle and apoptosis evaluations divulged the occurrence of both necrotic and apoptotic cell death following accumulation of MDA-MB-231 cells in sub-G₁ phases. Interestingly nanoparticles were cytocompatible with non-malignant NIH-3T3 cells supporting its clinical promise as a biosafe formulation. The work reflects the first report of luteolin-conjugated bio-safe gold nanoparticles as targeted therapeutics against TNBC.

GHCTRP/OP/53

RECENT ADVANCES OF MICROSPHERES AS DRUG DELIVERY SYSTEM

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Abstract

Traditional or immediate release single-unit dosage forms have never been as therapeutically efficacious as oral modified-release multiple-unit dosage forms. The multiparticulates are typically formed into microspheres and put into hard gelatin capsules for the final dose form. Microspheres attracted a lot of interest for drug targeting as well as extended release. Future drug delivery methods will increasingly rely on microspheres, especially for sick cell sorting, diagnostics, genetic materials, and focused and efficient medication delivery. The current goal of this review is to investigate many facets of the formulation, assessment, and characterisation of micro-particulates as a drug delivery system.

Keywords: Microspheres, Controlled release, Novel Drug Delivery, Therapeutic Efficacy.

Sl No.	Name of Participants	Address	Topic
1	Mr. Kakarla Pakeeraiah	School of Pharmaceutical Sciences S'O'A Deemed to be University	Design, Molecular Docking Study of Synthesised N-Heteroaryl Substituted Gallamide Derivatives And Their Antibacterial Assessment
2	Mr. Anil Kumar Vadaga	GITAM SCHOOL OF PHARMACY	Modified Starches-Future Excipients In Poorly Water-Soluble Drugs
3	Dr. Amit Prakash Sen	ARKA JAIN University	Implementation Of Enhanced Deep Cnn Model For Covid Detection
4	Miss. Ishika Choudhury	ARKA JAIN University	Spectrophotometric Quantification Of Nandrolone Decanoate In Parenteral Dosage Form Using Quality By Design Approach
5	Mr. Aniket Dutta	ARKA JAIN University	Antibiotics Resistance - A Global Health Crisis

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1	Erwin M. Faller	San Pedro College, Phillipines	Efficacy Of Nirmatrelvir And Ritonavir Combination (Paxlovid®) Treatment For Covid-19 In Adults: A Systematic Review And Meta- Analysis
2	Marilou Vicente Tablizo	University of the Immaculate Conception, Phillipines	A Systematic Review Of The Medicinal Benefits Of The Phytochemical Constituents Of Passion Fruit (Passiflora Edulis) In Non-Communicable Diseases