

GCSGD 2021 HLS

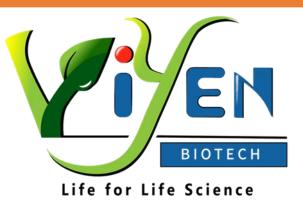


Virtual GLOBAL CONGRESS ON SUSTAINABLE GROWTH & DEVELOPMENT 2021-HEALTH AND LIFE SCIENCES (GCSGD2021-HLS)

DATE: 08 - 09 OCTOBER 2021



(Deemed to be University Estd. u/s 3 of the UGC Act, 1956) PALLAVARAM - CHENNAI ACCREDITED BY NAAC WITH 'A' GRADE Marching Beyond 25 Years Successfully





Conference Webpage: <u>https://einstein.co.in/gcsgd2021/</u>



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## GCSGD 2021-HLS

In line with the Sustainable Development Goals (SDGs) on protection and promoting sustainable growth and development for our own and future generations, this global congress in health and life sciences provides an international platform to identify the key developments that contribute to a better future in health and life sciences.

Global Congress on Sustainable Growth and Development 2021-Health and Life Sciences aims to:

- 1. Bring together academicians and experts around the world to present and share their expertise, knowledge and research findings towards sustainability and growth in health and life sciences.
- 2. Stimulate and strengthen interdisciplinary research links among researchers and stakeholders worldwide to take the bold and transformative steps to shift the world on to a sustainable and resilient path.

#### Main theme

Moving towards Sustainable Development Goals in Health and Life Sciences

#### **Sub-themes**

- Human Health and Well Being
- Sustainable Environment
- Biotechnology and Biological Sciences
- Pharmaceuticals and Nutraceuticals
- Food Security and Sovereignty
- Innovation, Infrastructure and Nanotechnology for Sustainability
- Applied Sciences

All accepted papers will be submitted to the Journal of Experimental Biology and Agricultural Sciences (\*Scopus indexed journal), INTI Journal and Journal of Advances in Biological and Health Sciences to consider for publication after peer review.



### **Message from Advisor**



**Professor Dr. Wong Ling Shing** INTI International University, Malaysia

Welcome to Global Congress on Sustainable Growth and Development 2021 – Health and Life Sciences (GCSGD 2021 HLS). The year 2021 has been a challenging year, as we have limited access to our offices and research facilities. However, it is my great pleasure to know that many researchers like us are still working day and night to generate knowledge and to help in the advancement in health and life sciences. I am glad to see all of us here in this Global Congress and share our most recent development and information about our research.

We had a very successful Global Congress in 2020, with more than 120 participants joined the event. We decided to keep the momentum rolling by organizing our Global Congress again in 2021 via online platform, with the focus on two interesting fields – health science and life science.

We are glad to announce that Journal of Experimental Biology and Agricultural Sciences continues to support us by accepting and publishing good quality papers generate from our congress. INTI Journal and Journal of Advances in Biological and Health Sciences are supporting us for the first time, to provide more choices to our participants in publishing our papers. To all participants, let us work together with the technical and review committee members to produce high quality papers that meets the requirement of the journals. That will be helpful to ensure smooth publication process later, after our Global Congress.

I wish to take this opportunity to express my gratitude to Einstein Research Academy, INTI International University, Malaysia, Geomatika University College, Malaysia, VELS Institute of Science, Technology, and Advanced Studies (VISTAS), India, Nilgiri College of Arts and Science, India, and Viyen Biotechnology for organizing GCSGD 2021 HLS. To all my committee members, thank you for your hard work, and congratulation for the job well done! I hope with the success that we have achieved; we will continue to organize GCSGD again in 2022.

### **Message from Convenor**



**Professor Dr. Senthilkumar Balasubramanian** Thiruvalluvar University, India

**O**n behalf of the organizing committee of the Global Congress on Sustainable Growth and Development 2021-Health and Life Sciences (GCSGD2021-HLS), I take immense pleasure in welcoming all delegates to this Global Congress.

The recent advancement and proliferation of innovative and sophisticated technologies in all disciplines have opened up multitude of opportunities to solve the challenges on sustaining lives on people and planet. This Congress has brought together the knowledge and expertise of great minds from across the globe to share and promote their ideas.

Our sincere thanks to the organizers, eminent speakers, reviewers, academicians, research scholars and graduate students for their presence and enthusiastic participation in coming together to interact with the pioneers.

I express my heartfelt gratitude to the organizing committee members for their dedication and hard work without whose meticulous effort and support this GCSGD 2021-HLS would not have been organized in a befitting manner.

I wish that GCSGD2021-HLS will be of great success.

VAZHGA VALAMUDAN

## **Message from Chair 1**



**Er. Kannan Ponkoodalingam** Cyber Security Trainer & VP, Einstein Research Academy, India.

**O**n behalf of the organizing committee, I am delighted to welcome all delegates to the annual conference of Einstein Research Academy, the "Global Congress on Sustainable Growth and Development 2021-Health and Life Sciences (GCSGD2021-HLS)". I am excited about the wide variety of ideas that scholars and practitioners will bring into our fold. With knowledgeable insights, this richness of ideas bodes well for the Health and Life Sciences field.

The theme for this year's conference "Sustainable Development Goals on protection and promoting growth" in the field of Health science is most appropriate at this moment which is dedicated to creating our future. During this adversity, as the pandemic ravaged the globe and holding a live conference is impossible, our community have taken this unprecedented challenge and ready to share our knowledge using online platform. With preparedness and safety at the forefront of our minds, we look forward to engaging virtual event experiences and flexing our muscles in hybrid formats to cautiously embrace the joy of knowledge sharing.

As a conference chair of GCSGD 2021 HLS, I do know that the success of the conference depends ultimately on the many people who have worked with us in planning and organizing both the technical program and supporting social arrangements, hence deepfelt appreciations to them. In particular, I would like to thank all of our co-organizers for providing their generous support. With this great success, hope to see all of you again in GCSGD 2022.





**Assistant Professor Dr. Sinouvassane Djearamane** Universiti Tunku Abdul Rahman, Malaysia

**O**n behalf of the organizing committee, it is our prodigious honor to invite and welcome everyone to the "Global Congress on Sustainable for Growth and Development 2021-Health and Life Sciences (GCSGD2021-HLS)". This global congress is jointly organized by Einstein Research Academy, Vels Institute of Science, Technology and Advanced Studies (Deemed University), Nilgiri College of Arts and Science & Viyen Biotech LLP. from India, and INTI International University & Geomatika University College from Malaysia.

This event aims to bring together academicians and world experts to present and share their expertise, knowledge and research findings towards sustainability and growth, and also to motivate and strengthen interdisciplinary research links in health and life sciences among researchers and stakeholders worldwide to take the bold and transformative steps to shift the world on to a sustainable and resilient path.

As the organizing chair of this event, I would like to thank the organizers for their valuable support, reviewers for evaluating the conference papers, distinguished speakers for sharing their treasured knowledge, and all the presenters in sharing their scientific novel as well as innovative findings. Further, I am indebted to all the members of the organizing committee, scientific session chairs and master of ceremonies for their obligation and meticulousness to make this event memorable and successful.



## **Organizing Committee**

#### Advisor

Prof. Dr. Wong Ling Shing, INTI International University, Malaysia

#### Convener

Prof. Dr. Senthilkumar Balasubramanian, Thiruvalluvar University, India

#### **Organizing Chairs**

Er. Kannan Ponkoodalingam, Cyber Security Trainer & VP, Einstein Research Academy, India.

Dr. Sinouvassane Djearamane, Universiti Tunku Abdul Rahman, Malaysia

#### **Organizing Secretaries**

Prof. Dr. K. Saminathan, Geomatika University College, Malaysia

Assoc. Prof. Dr. Prakash Balu, Vels Institute of Science, Technology and Advanced Studies (Deemed to be University), India

Prof. Dr. N. Duraimutharasan, AMET Deemed to be University, India

Dr. Ranjithkumar Rajamani, Executive Director & Chief Scientific Officer, Viyen Biotech LLP, India

#### **Technical Review Committee:**

Prof. Dr. Subha Bhassu, University of Malaya, Malaysia

Prof. Dr. Wong Ling Shing, INTI International University, Malaysia

Prof. Dr. K. Saminathan, Geomatika University College, Malaysia

Prof. Dr. N. Duraimutharasan, AMET Deemed to be University, India

Prof. Dr. Prathap Suganthirababu, Saveetha Institute of Medical and Technical Sciences (Deemed to be University), India

Prof. Dr. Jibi Paul, Dr. MGR. Educational and Research Institute (Deemed to be University), India

Prof. Dr. Manoj Abraham, KG College of Physiotherapy, India

Assoc. Prof. Dr. Visweswara Rao Pasupuleti, Universiti Malaysia Sabah, Sabah, Malaysia



Assoc. Prof. Dr. Ong Ghim Hock, INTI International University, Malaysia

Assoc. Prof. Dr. Geetha Subramaniam, INTI International University, Malaysia

Assoc. Prof. Dr. Alice Escalante De Cruz, Nilai University, Malaysia

Assoc. Prof. Dr Mohd Izham B Mohd Zain, KPJ Healthcare University College, Malaysia

Assoc. Prof. Dr. Wan Hee Cheng, INTI International University, Malaysia

Assoc. Prfo. Dr. A. Usha Raja Nanthini, Mother Teresa Women's University, India

Assoc. Prof. Dr. Vetriselvan Subramaniyan, MAHSA University, Malaysia

Assoc. Prof. Dr. Ashok Gnanasekaran, Quest University, Malaysia

Assoc. Prof. Dr. K. Govindaraju Kasivelu, Sathyabama Institute of Science and Technology (Deemed to be University), India

Assoc. Prof. Dr. Prakash Balu, VISTAS (Deemed to be University), India

Assoc. Prof. Dr. Hema Ramachandran, Quest International University, Malaysia

Dr. R.T. Narendhirakannan, Kongunadu Arts and Science College (Autonomous), India

Dr. Ranjithkumar Rajamani, Viyen Biotech LLP, India

Dr. Vikram Mohan, Bournemouth University, United Kingdom

Dr. Deivendran Kalirathinam, Hull university Teaching Hospital NHS Trust, United Kingdom

Dr. V. Christopher Amalraj, Imam Abdulrahman Bin Faisal University, Saudi Arabia

Dr. T.S. Mohamed Saleem, Riyadh ELM University, Saudi Arabia

Dr. Ashok Kumar Janakiraman, UCSI University, Malaysia

Dr. Supat Chupradit, Chiang Mai University, Thailand

Dr. Ajeet Kumar, Korea Advanced Institute of Science and Technology, South Korea

Dr K. Kanthavel, Anna University Regional Campus Coimbatore, India

Dr. Venu Venkatarame Gowda Saralamma, Yonsei University, South Korea

Dr. Ng Shee Ping, Nilai University, Malaysia

Dr. P. Balamurugan, SASTRA Deemed University, India

Dr. B. Chandarshekar, Kongunadu Arts and Science College, India

Dr. D. Bharathi, Hindusthan College of Arts & Science, India

Dr. P. Senthilkumar, Nehru Arts and Science College, India

Dr. G. Deepthi, AIMST University, Malaysia

Dr. Charles Gnanaraj, Universiti Kuala Lumpur, Malaysia

Dr. Sangeetha Arullappan, Universiti Tunku Abdul Rahman, Malaysia

Mr. Vinodhkumar Ramalingam, INTI International University, Malaysia

Ms. Kiruthika Selvakumar, Universiti Tunku Abdul Rahman, Malaysia

Mr. Pradeep Balakrishnan, KPJ Healthcare University College, Malaysia

Mr. S.Tamijeselvan, Mother Theresa PG and Research Institute of Health Sciences, India

Mr. Dinesh Kumar Lakshmi Narayanan, Geomatika University College, Malaysia

Mr. Senthil Vadivelu, King Saud bin Abdulaziz University for Health Sciences, Kingdom of Saudi Arabia

Mr. Karthikkumar Dhanabalan, Research Associate, Viyen Biotech LLP, India



### **EVENT SCHEDULE**

Τιμε	DAY 1-08 OCTOBER 2021, FRIDAY	LINK FOR SESSIONS
<b>IST-</b> INDIAN STANDARD TIME	(MC - DR. PATRICIA JAYSHREE SAMUEL JACOB, NILAI UNIVERSITY, MALAYSIA)	
<b>MYT- MALAYSIAN STANDARD</b>		
TIME		
11.15 AM – 11.30 AM (IST)	Registration and Information of co-organizers	For all Participants/Authors/Attendees
01.45 PM - 02:00 PM (MYT)		
11.30 AM - 11.40 AM (IST)	Welcome Address: PROF. DR. WONG LING SHING, Advisor of GCSGD2021- HLS	
02:00 PM - 02:10 PM (MYT)		
11.40 AM – 11.45 AM (IST)	Photo Session	
02.10 PM – 02.15 PM (MYT)		
11.45 AM – 12.05 PM (IST)	Keynote 1: PROF. DR. SUBHA BHASSU, University of Malaya, Malaysia	
02:15 PM – 02:35 PM (MYT)		GENERAL CHANNEL (MS Teams)
12.05 PM – 12.25 PM (IST)	Keynote 2: PROF. DR. A. KALAIVANI, Vels Institute of Science, Technology and Advanced Studies -Deemed University, India)	
02:35 PM - 02:55 PM (MYT)	and Advanced Studies "Deemed Oniversity, India)	
12.25 PM – 12.45 PM (IST)	Keynote 3: MR. RASHID GAZZALI, Nilgiri Arts and Science College, India	
02:55 PM- 03:15 PM (MYT)		
12.45 PM – 01.05 PM (IST)	Keynote 4: ASSOC. PROF. DR CHRISTOPHE WIART, University of	
03:15 PM- 03:35 PM (MYT)	Nottingham - Malaysia campus	
	BREAK (01:05 - 01:30 PM, IST/ 03.35 - 04.00 PM, MYT)- Information of co	-organizers
	Parallel Session 1	CHANNEL 1 ( MS Teams)
01:30 PM - 03:30 PM (IST)	Parallel Session 2	CHANNEL 2 ( MS Teams)
04.00 PM - 06.00 PM (MYT)	Parallel Session 3	CHANNEL 3 (MS Teams)
	End of DAY 1	



	DAY 2 - 09 OCTOBER 2021, SATURDAY		
	(MC - DR. PATRICIA JAYSHREE SAMUEL JACOB, NILAI UNIVERSITY, MA	LAYSIA)	
11.15 AM – 11.30 AM (IST)	Registration and Video play of co-organizers		
01.45 PM - 02:00 PM (MYT)	For all Participants/Authors/Atter		
11.30 AM – 11.40 AM (IST)	Welcome Address : PROF. DR. SENTHILKUMAR BALASUBRAMANIAN,		
02:00 PM – 02:10 PM (MYT)	Convener of GCSGD2021- HLS		
11.40 AM – 11.45 AM (IST)	Photo Session		
02.10 PM – 02.15 PM (MYT)		GENERAL CHANNEL (MS Teams)	
11.45 AM – 12.05 PM (IST)	Keynote 5: ASSOC. PROF. DR. HO LEUNG NG, Kansas State University, United		
02:15 PM – 02:35 PM (MYT)	States of America		
12.05 PM – 12.25 PM (IST)	Keynote 6: DR. VELAYOUDAME PARTHIBANE, National Cancer Institute,		
02:35 PM - 02:55 PM (MYT)	Frederick, MD, United States of America		
12.25 PM – 12.45 PM (IST)	Keynote 7: ASSOC. PROF. DR GEETHA SUBRAMANIAM, INTI International		
02:55 PM - 03:15 PM (MYT)	T) University, Malaysia		
12.45 PM – 01.05 PM (IST)	Keynote 8: DR. PIYUSH KUMAR GUPTA, Sharda University, India		
03:15 PM - 03:35 PM (MYT)			
	BREAK (01:05 - 01:30 PM, IST/ 03.35 - 04.00 PM, MYT )- Information of co	o-organizers	
	Parallel Session 4	CHANNEL 4 ( MS Teams)	
01:30 PM - 03:30 PM (IST)	Parallel Session 5	CHANNEL 5 ( MS Teams)	
04.00 PM – 06.00 PM (MYT)	Parallel Session 6	CHANNEL 6 ( MS Teams)	
$0 \pm 0 0 \pm 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 $	Parallel Session 7	CHANNEL 7 ( MS Teams)	
03:30 PM - 03:35 PM (IST)	Announcement of Best Presentation Award: ER. KANNAN	GENERAL CHANNEL (MS Teams)	
06.00 PM - 06.05 PM (MYT)	PONKOODALINGAM, VP, Einstein Research Academy, India		
03:35 PM - 03:40 PM (IST)	Closing Remarks : Dr. Sinouvassane Djearamane, Organizing Chair of <b>GENERAL CHANNEL (MS Tea</b> l		
06.05 PM - 06.10 PM (MYT)	GCSGD2021- HLS		
	End of the Event		





**Professor Dr. Subha Bhassu** Head of Animal Genomics and Evolutionary Biology Lab(AGAGEL) Institute of Biological Sciences University of Malaya, Malaysia

### *Title:* BIOBASED INNOVATION IS THE KEY FOR HEALTH AND LIFESTYLE PUBLIC HEALTH

#### Abstract:

Sustainable aquaculture yields sustainable food for people. Feed the people with the right nutritious food and it is safe and free from antibiotics, pathogens and chemical pollutants are the key factors in ensuring healthy living. Aquaculture products ranges from fish, shell fishes and seaweeds are now trending as health products for all as the generation of sustainable aquaculture will ensure food at the table. Biobased innovation is the key to ensure the value chain for aquaculture will not only generate income in the whole value chain analysis. Today I will speak on few biobased innovations that proved the success to this field and moreover the primary goal is safe and healthy living. We will discuss the latest technology such as nano sensors, gene editing, data science, synthetic biology, epigenetics and genomics have paved way to the latest findings in the field of area of the Blue economy. Focus of the talk is the humble Shrimp or sometimes we call prawns which we have worked on for the past 20 years. This strategy ensures the biosafety validity of cultured shrimps as they are crucial aquatic food sources. The assurance of good shrimp health condition is important for downstream food processing industry and human consumption.





**Professor Dr. R. A. Kalaivani** Director, School of Basic Sciences Vels Institute of Science Technology and Advanced Studies (VISTAS)- Deemed University, India

#### Title: NANOTECHNOLOGY FOR SUSTAINABILITY

#### Abstract:

The world is facing great challenges in meeting rising demands for basic commodities (e.g., food, water and energy), finished goods (e.g., cell phones, cars and airplanes) and services (e.g., shelter, healthcare and employment) while reducing and minimizing the impact of human activities on Earth's global environment and climate. Nanotechnology is a collective definition referring to every technology and science which operates on a nanoscale. During the past decades, nanotechnology has globally become a core technology, projecting the future direction of science and engineering as well as the industry. Nanotechnology has emerged as a versatile platform that could provide efficient, cost-effective and environmentally acceptable solutions to the global sustainability challenges facing society. We highlight recent advances and discuss opportunities of utilizing nanotechnology to address global challenges in (1) water purification, (2) clean energy technologies, (3) greenhouse gases management, (4) materials supply and utilization, and (5) green manufacturing and chemistry. Nanotechnology also proves to be an efficient technique for managing resources of the agricultural field, drug delivery mechanisms in plants, and maintaining soil fertility. The focus of this lecture is on sustainable energy solutions and as such, strong emphasis is given to renewable energy. However, cutting-edge advances in non-renewable energy production (e.g. petroleum refining, biomass conversion) may also be considered provided there is a clear sustainability focus or advance towards a clean fuel technology. In addition to the technical challenges listed above, we also discuss societal perspectives and provide an outlook of the role of nanotechnology in the convergence of knowledge, technology and society for achieving sustainable development.





**Mr. Rashid Gazzali** Managing Director and Secretary, Nilgiri College of Arts and Science, India

#### **Title:** PROMOTING MENTAL WELLNESS; HOPES AND CHALLENGES FOR SUSTAINABLE HEALTH AND PROSPERITY

#### Abstract:

Mental wellbeing is a positive state of health that can impact thoughts, behaviors, and emotions. Hence, it is defined as an integral part of health by the WHO and included on the unified global agenda. It postulates everyone has a role and responsibility in promoting mental health and needs to encourage participation from various sectors such as education, work, environment, and community development. According to Murray & Lopez (1996), mental wellness will be a rising concern by 2025 that will constitute the second-largest disease, and the burden will be well beyond the treatment capacities of developed and developing countries. On the economic aspect, it has a potentially devastating impact on the global economy, which can lower the quality of life, deplete personal and family finances, and feed into poverty. According to the MHIN report (2019), 12 billion working days are lost every year due to mental illness. In addition, the social cost associated with the growing burden of mental illness is significant, and curing mechanisms are relatively less than required. The fundamental intention of mental wellness is to create happiness. The report by Origin of Happiness (2020) states that eliminating mental health issues would increase happiness by 20 percent, whereas eradicating poverty would increase happiness by only 5 percent. Many other scientific studies also found mental wellness and happiness are highly correlated than physical wellness. Hence, this presentation intends to explore the multidimensional aspect of mental wellness and happiness by looking into the following elements: • Relevance of mental wellness for sustaining health and prosperity • Measures to assess and improve the happiness level of stakeholders in organizations • Means and ways to enhance mental wellness of young generation • Challenges and hopes on maintaining happiness – A Case Study (NCAS).





Associate Professor Dr. Christophe Wiart Associate Professor in School of Pharmacy University of Nottingham Malaysia Malaysia

## *Title:* MEDICINAL PLANTS IN CURRENT THERAPEUTICS: ARE WE MISSING THE LAST CHANCE?

#### Abstract:

COVID-19 pandemic is a call for attention for the use of medicinal plants in Asia and the Pacific for the development of drugs and phytomedications. The presentation provides some historical background on the use of plants for human medicine, discusses current strategies in drug discovery from plants, and discusses the role of university teaching in the formation of intellectual elites capable of developing in the third world drugs and phytomedications of global interest.





Associate Professor Dr. Ho Leung Ng Associate Professor of Biochemistry and Molecular Biophysics Kansas State University United States of America

#### Title: AI-DRIVEN DRUG DISCOVERY FOR COVID-19

#### Abstract:

Machine learning algorithms have given us powerful new tools for computational drug design. I discuss our use of machine learning in generating new molecules for COVID-19 drug discovery. The methods we are using are based on deep neural networks, genetic algorithms, and reinforcement learning. Our drug binding predictions are comparable to state-of-the-art free energy calculations but a small fraction of the computational cost.





**Dr. Velayoudame Parthibane** Research Fellow, Laboratory of Cell and Developmental Signaling, National Cancer Institute, Frederick, MD United States of America 18

### **Title:** ssSPTA IS ESSENTIAL FOR SERINE PALMITOYLTRANSFERASE FUNCTION DURING DEVELOPMENT AND HEMATOPOIETIC.

#### Abstract:

Serine palmitoyltransferase complex (SPT) mediates the first and rate-limiting step in the *de novo* sphingolipid biosynthetic pathway. SPT complex comprises of two large subunits SPTLC1 and SPTLC2/SPTLC3 and a smaller subunit either SSSPTA or SSSPTB. The biochemical function of smaller subunits has been shown to increase the catalytic efficiency and the fatty acyl-CoA preferences. *In vivo* biological importance of smaller subunits in mammals is unknown. We use a conditional null for *ssSPTa* and a null mutant for *ssSPTb* to explore their functions. we show SSSPTA is essential for embryogenesis and adult hematopoiesis. *ssSPTa* null mutants are embryonic lethal at E6.5. However, *ssSPTb* mouse is viable. *Mx1-Cre* induced deletion of *ssSPTa* leads to lethality and severe myelopoietic defect. Chimeric bone marrow transplantation experiments show defects in myelopoiesis and expansion of stem cell compartment. Hematopoietic stem and progenitor cells show impaired differentiation to the myeloid lineage and displayed endoplasmic reticulum stress. Therefore, SSSPTA is essential for embryonic development and hematopoietic functions.



Associate Professor Dr. Geetha Subramaniam Senior Lecturer in Biotechnology INTI International University, Malaysia

#### Title: PLANT EXTRACTS AS ALTERNATIVES TO ANTIBIOTICS

#### Abstract:

The current increasing trend in antibiotic resistance among clinical pathogens is a global issue and impacts the treatment of infectious diseases in our healthcare setting. The ease in which bacteria are able to develop resistance against antibiotics makes it necessary for the search for alternative therapeutic compounds. This presentation will focus on some of the plants with promising antibacterial activity against clinically important pathogens including *Pseudomonas aeruginosa, Staphylococcus aureus* and the multidrug-resistant *S. aureus* (MRSA). The secondary metabolites in plants have been shown to have strong antibacterial activity with the added benefit of containing resistance modifying agents that are postulated to prevent the development of bacterial resistance against these compounds. The added benefit of using extracts from plants is the ease in which the raw material can be obtained which is beneficial from both an economical and environmental point of view. The findings in these study indicate the potential goldmine that is contained in nature that can be used to combat antibiotic resistance.





**Dr. Piyush Kumar Gupta** Assistant Professor in Life Sciences Sharda University, India

#### **Title:** BIODEGRADABLE POLYESTER NANOMATERIALS AS TUMOR TARGETING DRUG DELIVERY VEHICLES FOR POTENTIAL CLINICAL APPLICATION

#### Abstract:

Polyester nanomaterials have been widely used in drug delivey application from a longer period of time. This study reports the synthesis of metal-free semi-aromatic polyester (SAP) nanomaterial for drug delivery and evaluate its in vivo acute and systemic toxicity for potential clinical application. The ring opening coplymerization of commercially available cyclohexene oxide (CHO) and phthalic anhydride (PA) monomers was carried out to synthesize fully alternating poly(CHO-co-PA) copolymer using metal-free activators. The obtained low  $M_n$  SAP was found to be biocompatible, hemocompatible and biodegradable nature. This copolymer was first-time used to fabricate curcumin (CUR) loaded nanoparticles (NPs). These NPs were physicochemically characterized. Further, these negatively charged core-shell spherical NPs exhibited slow sustained release behavior of CUR with anomalous transport and further displayed its higher intracellular uptake in SiHa cells at different time-periods compared to free CUR. In vitro anti-cancer therapeutic effects of free CUR and poly(CHO-alt-PA)-CUR NPs were evaluated on different cancer cells. We observed the increased cytotoxicity of CUR NPs with low IC<sub>50</sub> values compared to free CUR. These results were further substantiated with ex vivo data where, a significant reduction was observed in CUR NPs treated tumor spheroid's size as compared to free CUR. Furthermore, the different doses of metal-free poly(CHO-alt-PA) nanomaterial were tested for its acute and systemic toxicity in BALB/c mice. We did not observe any significant toxicity of tested nanomaterial on vital organs, blood cells and the body weight of mice. Our study suggest that this metal-free SAP nanomaterial can be used for potential clinical application.



Parallel Session 1
Assoc. Prof. Dr. Wan Hee Cheng, INTI International University, Malaysia
08-October-2021 (Friday)
01:30 PM to 03:30 PM (IST), 04.00 PM to 06.00 PM (MYT)

Note: **IST**- Indian Standard time, **MYT**- Malaysian standard time

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Time	Article/ Abstract ID	Title of paper with presenter name
01:30 - 01:45 PM (IST) 04.00 - 04.15 PM (MYT)	HLS2102	CORRELATION ANALYSIS IN INTERNET ADDICTION AND SELF- REGULATION AMONG THAI UNIVERSITY STUDENTS <b>Presenter:</b> Dr. Supat Chupradit
01:45 - 02:00 PM (IST) 04.15 - 04.30 PM (MYT)	HLS2103	GLOBAL TREND OF MENTAL HEALTH AND WELL-BEING IN LGBTQ+ TEENAGERS: INTEGRATIVE REVIEW <b>Presenter:</b> Mr. Thanawat Manee
02:00 - 02:15 PM (IST) 04.30 - 04.45 PM (MYT)	HLS2104	A PILOT STUDY OF A RESILIENCE PROGRAMME THROUGH GROUP DYNAMICS ON ACADEMIC PROBLEMS AMONG MATTHAYOM SUKSA 1 STUDENTS AT CHIANG MAI UNIVERSITY DEMONSTRATION SCHOOL <b>Presenter:</b> Ms. Chanakarn Kumkun
02:15 - 02:30 PM (IST) 04.45 - 05.00 PM (MYT)	HLS2105	STRESS MANANAGEMENT PROGRAMME ON THE STRESS OF CHIANG MAI UNIVERSITY STUDENTS: A PILOT STUDY <b>Presenter:</b> Mr. Natthanit Joompathong
02:30 - 02:45 PM (IST) 05.00 - 05.15 PM (MYT)	HLS2106	INFLUENCE OF HAND ANTHROPOMETRY AND NUTRIENT INTAKE ON HAND GRIP STRENGTH: A CORRELATIONAL STUDY AMONG YOUNG INDIAN BADMINTON PLAYERS <b>Presenter:</b> Mrs. Shreyashi Saha
02:45 - 03:00 PM (IST) 05.15 - 05.30 PM (MYT)	HLS2115	SUPPORTLINEAREVOLUTIONARYMETHODFORDIMENSIONALITY REDUCTION IN BLOOD PRESSURE DETECTION <b>Presenter</b> :Ms. P. Patchaiammal
03:00 - 03:15 PM (IST) 05.30 - 05.45 PM (MYT)	HLS2116	A SENTIMENT-BASED SPAM DETECTION MODEL FOR COVITWEET USING MACHINE LEARNING APPROACH <b>Presenter</b> : Ms. P. Gunasundari
		End of this Session

Channel 2 (Ms Teams)	Parallel Session 2
Session Chair	Dr. T.S. Mohamed Saleem, Riyadh ELM University, Saudi Arabia
Date	08-October-2021 (Friday)
Time	01:30 PM to 03:30 PM (IST), 04.00 PM to 06.00 PM (MYT)
	Note: IST- Indian Standard time, MYT- Malaysian standard time

Time	Article/ Abstract ID	Title of paper with presenter name
01:30 - 01:45 PM (IST) 04.00 - 04.15 PM (MYT)	HLS2107	A REVIEW ON THE EFFECTS OF DIFFERENT SUBSTRATES ON THE GROWTH AND NUTRITIONAL COMPOSITION OF PLEUROTUS OSTREATUS <b>Presenter</b> : Assoc. Prof. Dr. Geetha Subramaniam
01:45 - 02:00 PM (IST) 04.15 - 04.30 PM (MYT)	HLS2108	AWARENESS AND KNOWLEDGE OF VERTIGO AMONG THE ADULT POPULATION IN SELANGOR, MALAYSIA <b>Presenter:</b> Mr. Jim Brown Clements
02:00 - 02:15 PM (IST) 04.30 - 04.45 PM (MYT)	HLS2109	<i>REVIEW OF HEAVY METAL CONTAMINATION IN MANGROVE</i> <i>SEDIMENT IN MALAYSIA</i> <b>Presenter:</b> Ms. Nadia Ab Shukor
02:15 - 02:30 PM (IST) 04.45 - 05.00 PM (MYT)	HLS2110	SUSTAINABLE LIVELIHOOD: GUIDELINES FOR HUMAN CAPITAL ACCESS OF GOAT FARMERS IN THE UPPER NORTHERN REGION OF THAILAND <b>Presenter:</b> Mr. Thongmeethip
02:30 - 02:45 PM (IST) 05.00 - 05.15 PM (MYT)	HLS2111	BIOSYNTHESIS OF SILVER NANOPARTICLES USING WHOLE PLANT EXTRACT OF CINERARIA MARITIMA L, AND THEIR ANTIBACTERIAL ACTIVITY Presenter: Dr. D. Moorthy
02:45 - 03:00 PM (IST) 05.15 - 05.30 PM (MYT)	HLS21A8	VACCINE HESITANCY TOWARDS THE COVID-19 VACCINE AMONG THE MALAYSIAN POPULATION <b>Presenter:</b> Ms. Lalita Ambigai Sivasamugham
03:00 - 03:15 PM (IST) 05.30 - 05.45 PM (MYT)	HLS2117	METALLIC NANOPARTICLE: EFFECT ON MICROALGAE IN AQUATIC ENVIRONMENT Presenter: Ms. Arularasi Thenarasu End of this Session

Channel 3 (Ms Teams)	Parallel Session 3
Session Chair	Dr. V. Christopher Amalraj, Imam Abdulrahman Bin Faisal University, Saudi Arabia
Date	08-October-2021 (Friday)
Time	01:30 PM to 03:30 PM (IST), 04.00 PM to 06.00 PM (MYT)
	Note: IST- Indian Standard time, MYT- Malaysian standard time

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Time	Article/ Abstract ID	Title of paper with presenter name
01:30 - 01:45 PM (IST) 04.00 - 04.15 PM (MYT)	HLS21A2	SCIENCE AND QUALITY EDUCATION FOR SUSTAINABLE DEVELOPMENT IN LIBYA <b>Presenter:</b> Mr. Mahmoud M. Dboba
01:45 - 02:00 PM (IST) 04.15 - 04.30 PM (MYT)	HLS21A3	<i>IMPACT OF LIFESTYLE INTERVENTION AMONG PREDIABETES</i> <b>Presenter:</b> Mrs. R. Grace Janet Mary Ann
02:00 - 02:15 PM (IST) 04.30 - 04.45 PM (MYT)	HLS21A6	PRODUCTION OF FOOD GRADE PIGMENTS FROM MICROBIAL SOURCES Presenter: Dr. Mayakkannan Gopal
02:15 - 02:30 PM (IST) 04.45 - 05.00 PM (MYT)	HLS21A10	<i>A COMPARATIVE HPTLC FINGERPRINTING OF METHANOL</i> <i>EXTRACTS OF CARICA PAPAYA L. VAR. RED LADY PEEL AND SEED</i> <b>Presenter</b> : Mrs. Vijitha V
02:30 - 02:45 PM (IST) 05.00 - 05.15 PM (MYT)	HLS21A11	<i>EFFECT OF CRY PROTEIN BASED DIET ON THE INTESTINAL</i> <i>MOTILITY AND HISTOPATHOLOGICAL CHANGES IN MALE ALBINO</i> <i>RATS</i> <b>Presenter:</b> Ms. Arpita Rani Khamrai
02:45 - 03:00 PM (IST) 05.15 - 05.30 PM (MYT)	HLS21A16	STUDIES ON NFKB DOCKING WITH COMMON BIOACTIVE COMPOUNDS PRESENT IN PUNICA GRANATUM PEEL AND VITIS VINIFERA SEEDS <b>Presenter:</b> Assoc. Prof. Dr. Ashok Kumar K
03:00 - 03:15 PM (IST) 05.30 - 05.45 PM (MYT)	HLS21A17	BIO CHARACTERIZATION VIA FT-IR AND GC-MS IN CUCURBITA VARIETY (YELLOW AND WHITE PUMPKIN) Presenter: Dr. Jayanthi Malaiyandi
		End of this Session

Channel 4 (Ms Teams)	Parallel Session 4
Session Chair	Dr. Ajeet Kumar, Korea Advanced Institute of Science and Technology, South Korea
Date	09-October-2021 (Saturday)
Time	01:30 PM to 03:30 PM (IST), 04.00 PM to 06.00 PM (MYT)
	Note: IST- Indian Standard time, MYT- Malaysian standard time

Time	Article/ Abstract ID	Title of paper with presenter name
01:30 - 01:45 PM (IST) 04.00 - 04.15 PM (MYT)	HLS2101	A REVIEW-POTENTIAL USE OF SOIL FUNGI IN REMEDIATING SPENT ENGINE OIL <b>Presenter:</b> Ms. Selvina A/P Sandiawo
01:45 - 02:00 PM (IST) 04.15 - 04.30 PM (MYT)	HLS2111	<i>IMPACT OF METALLIC NANOPARTICLES ON THE NUTRITIONAL</i> <i>VALUES OF SPIRULINA</i> <b>Presenter:</b> Mr. Raveenderan Sithambaram
02:00 - 02:15 PM (IST) 04.30 - 04.45 PM (MYT)	HLS21A21	<i>MDCK CELL LINE PERMEABILITY OF CURCUMIN LOADED</i> <i>PHYCOCYANIN NANOSPONGES - IN VITRO STUDY</i> <b>Presenter:</b> Mrs. Manjuladevi Kasirajan
02:15 - 02:30 PM (IST) 04.45 - 05.00 PM (MYT)	HLS21A20	MOLECULAR IDENTIFICATION OF SCALE INSECT (EULECANIUM GIGANTEUM) IN HIBISCUS ROSA-SINENSIS <b>Presenter</b> : Dr. Suganthi
02:30 - 02:45 PM (IST) 05.00 - 05.15 PM (MYT)	HLS21A19	<i>OPTIMIZATION AND CHARACTERIZATION OF FLORISYNTHESIZED</i> <i>SILVER NANOPARTICLES (AgNPs) FROM SOLANUM PUBESCENS</i> <b>Presenter:</b> Mrs. Arulmathi Ramalingam
02:45 - 03:00 PM (IST) 05.15 - 05.30 PM (MYT)	HLS21A24	A STUDY ON THE IDENTIFICATION AND COMPARISON ON THE PHYTOCHEMICAL CONTENT OF PASSIFLORA EDULIS F. EDULIS WITH PASSIFLORA EDULIS F. FLAVICARPA AND SENSORY ATTRIBUTES OF FRUIT SQUASHES <b>Presenter:</b> Mrs. Poornima Jeyasekaran
03:00 - 03:15 PM (IST) 05.30 - 05.45 PM (MYT)	HLS21A22	IMPROVE THE GERMINATION RATE AND DEFENSIVE ENZYME ACTIVITY NATURALLY BY THE EXTRA CELLULAR POLYMERIC SUBSTANCES PRODUCED FROM SPIROGYRA SPP. <b>Presenter:</b> Dr. Saravanan Devarajan

End of this Session

Channel 5 (Ms Teams)	Parallel Session 5
Session Chair	Dr. Venu Venkatarame Gowda Saralamma, Yonsei University, South Korea
Date	09-October-2021 (Saturday)
Time	01:30 PM to 03:30 PM (IST), 04.00 PM to 06.00 PM (MYT)
	Note: IST- Indian Standard time, MYT- Malaysian standard time

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Time	Article/ Abstract ID	Title of paper with presenter name
01:30 - 01:45 PM (IST) 04.00 - 04.15 PM (MYT)	HLS21A9	<i>EVALUATION OF ANTIMICROBIAL ACTIVITY OF PAPAYA (VAR. RED LADY) PEEL AGAINST GRAM POSITIVE AND GRAM NEGATIVE BACTERIA</i> <b>Presenter:</b> Ms. Roshni A.S
01:45 - 02:00 PM (IST) 04.15 - 04.30 PM (MYT)	HLS21A15	PREVALENCE OF RESPIRATORY SYMPTOMS AND ASSOCIATED RISK FACTORS AMONG STREET FOOD VENDORS IN KLANG VALLEY, MALAYSIA <b>Presenter:</b> Mrs. Sumedha
02:00 - 02:15 PM (IST) 04.30 - 04.45 PM (MYT)	HLS21A27	<i>EVALUATION OF ANTIOXIDANT AND ANTIBACTERIAL ACTIVITIES</i> <i>OF BUBBLE BELLY MASSAGE OIL</i> <b>Presenter:</b> Ms. Jeyasharlina Ganesan
02:15 - 02:30 PM (IST) 04.45 - 05.00 PM (MYT)	HLS21A31	ANTIBACTERIAL PROPERTIES OF ZINC OXIDE NANOPARTICLES ON SERRATIA MARCESCENS ATCC 43862 Presenter: Ms. Loh Zhe Chi
02:30 - 02:45 PM (IST) 05.00 - 05.15 PM (MYT)	HLS21A36	POTENTIAL OF GREEN SYNTHESIZED ZNO NANOPARTICLES AS AN ANTICANCER AGENT <b>Presenter:</b> Ms. Hemaroopini Subramaniam
02:45 - 03:00 PM (IST) 05.15 - 05.30 PM (MYT)	HLS21A12	<i>FACTORS DETERMINING THE CUSTOMERS' INTENTION TO PURCHASE OTC PRODUCTS THROUGH E-PHARMACIES</i> <b>Presenter:</b> Mr. R. Krishnadas
03:00 - 03:15 PM (IST) 05.30 - 05.45 PM (MYT)	HLS21A38	FUTURE OF FOOD: IMPACT OF YOUTUBE ADVERTISEMENTS - MARKETING CONTENT AND PERSUASIVE TECHNIQUES Presenter: Mr. P. J. Britto

End of this Session

Channel 6 (Ms Teams)	Parallel Session 6
Session Chair	Dr. Geeta Mehra, Mehr Chand Mahajan DAV College for Women Affiliated to Panjab University, India
Date	09-October-2021 (Saturday)
Time	01:30 PM to 03:30 PM (IST), 04.00 PM to 06.00 PM (MYT) Note: <b>IST</b> - Indian Standard time, <b>MYT</b> - Malaysian standard time

Time	Article/ Abstract	Title of paper with presenter name		
01:30 - 01:45 PM (IST)	ID HLS21A34	BIOPOLYMER NANOCOMPOSITES: ENVIRONMENTAL		
04.00 - 04.15 PM (MYT)		BIODEGRADATIONOFPOLY(3-HYDROXYBUTYRATE-CO-4-HYDROXYBUTYRATE)COPOLYMERINCORPORATEDWITHCLAYTONEPresenter:Ms. LoganantiniParamasivam		
01:45 - 02:00 PM (IST) 04.15 - 04.30 PM (MYT)	HLS21A32	ANTIBACTERIAL PROPERTIES OF ZINC OXIDE NANOPARTICLES ON ENTEROCOCCUS FAECALIS ATCC 29121		
		Presenter: Mr. Lee Jun Jie		
02:00 - 02:15 PM (IST) 04.30 - 04.45 PM (MYT)	HLSA39	PREDICTION AND ANALYSIS OF COVID-19 CASES IN SELANGOR MALAYSIA USING DEEP LEARNING MODEL <b>Presenter:</b> Dr. Kavitha Subramaniam		
02:15 - 02:30 PM (IST) 04.45 - 05.00 PM (MYT)	HLS2119	PREPARATION AND CHARACTERIZATION OF HYBRID CALCIUM PHOSPHATE CHITOSAN NANOPARTICLES AS PLANT GROWTH PROMOTER <b>Presenter:</b> Ms. L.S. Niranjana		
02:30 - 02:45 PM (IST) 05.00 - 05.15 PM (MYT)	HLS2120	SYNTHESIS AND CHARACTERIZATION MAGNESIUM DOPED FERRIC SULPHATE (Mg-doped Fe2SO3) NANOPARTICLES FOR AGRICULTURE APPLICATIONS <b>Presenter:</b> Mr. Karthikkumar. D		
02:45 - 03:00 PM (IST) 05.15 - 05.30 PM (MYT)	HLS2121	POTENTIAL COVID -19 THERAPEUTICS IN CLINICAL TRIALS Presenter: Mr. Sankar Kumar Pandian		
03:00 - 03:15 PM (IST) 05.30 - 05.45 PM (MYT)	HLS21A18	PARTIAL PURIFICATION OF EXTRACELLULAR AMYLASE FROM HALOTOLERANT ACTINOMYCETES STREPTOMYCES BRASILIENSIS MML2028 Presenter : Dr.G.Abirami		
End of this Session				

Channel 7 (Ms Teams)	Parallel Session 7		
Session Chair	Assoc. Prof. Dr. Geetha Subramaniam, INTI International University, Malaysia		
Date	09-October-2021 (Saturday)		
Time	01:30 PM to 03:15 PM (IST), 04.00 PM to 05.45 PM (MYT)		
Note: <b>IST</b> - Indian Standard time, <b>MYT-</b> Malaysian standar			

Time	Article/ Abstract ID	Title of paper with presenter name			
01:30 - 01:45 PM (IST) 04.00 - 04.15 PM (MYT)	HLS21A14	PREVALENCE OF MUSCULOSKELETAL PAIN AND ITS ASSOCIATION WITH COMPUTER WORKSTATION ERGONOMIC AMONG UNDERGRADUATES IN MALAYSIA <b>Presenter</b> : Ms. Kong Yi Ling			
01:45 - 02:00 PM (IST) 04.15 - 04.30 PM (MYT)	HLSA35	<i>THE ROLE OF NUTRITION AND FOOD HABITS IN PROMOTING HUMAN HEALTH AND WELL-BEING</i> <b>Presenter</b> : Mrs. R. Bavithra			
02:00 - 02:15 PM (IST) 04.30 - 04.45 PM (MYT)	HLS21A1	MYCOSYNTHESIS OF GOLD NANOPARTICLES AND ITS CYTOTOXIC ACTIVITY Presenter: Mrs. Farzana Fathima Mohamed Rasheed			
02:15 - 02:30 PM (IST) 04.45 - 05.00 PM (MYT)	HLS21A23	<i>MOLECULAR METHODS IN DETERMINING RHIZOBACTERIAL DIVERSITY</i> <b>Presenter:</b> Ms. Saikiruba R			
02:30 - 02:45 PM (IST) 05.00 - 05.15 PM (MYT)	HLS21A26	AN OVERVIEW OF CEROPEGIA JUNCEA ROXB.: REVIEW Presenter : Ms. Bhubaneswari M			
02:45 - 03:00 PM (IST) 05.15 - 05.30 PM (MYT)	HLS2118	DNA VACCINES IN PRE-CLINICAL TRIALS AGAINST COVID – 19 Presenter: Mr. Dinesh Kumar Lakshmi Narayanan			
03:00 - 03:15 PM (IST) 05.30 - 05.45 PM (MYT)	HLS21A37	DEVELOPMENT AND OPTIMIZATION OF PROANTHOCYANIDIN LOADED TRANSFEROSOMES FOR OSTEOARTHRITIS <b>Presenter:</b> Dr. Ramkanth S			
End of this Session					



## Notes
