



MYSURU MAKKALA KOTA

&

SRI DHARMASTHALA MANJUNATHESWARA MAHILA MAHA VIDYALAYA

Krishnamurthypuram, Mysuru- 570004

SDM Educational Society (R), UJIRE

In association with

GLOBAL ASSOCIATION OF SCIENTIFIC YOUNG MINDS (GASYM)(R)

Organizing Two Days National Conference on "Scientific Advancements for Sustainable Development"

February 22-23, 2018



About the Conference

The quest to decipher biological solutions to impending questions to resolve, restore and sustain the quality of life for humans, plants and animals has resiliently evolved through time immemorial resulting in associations between interdisciplinary research areas and industry. As the overwhelming malignancies of diseased states prevalent or induced in the health sectors in India and worldwide has obtained a status of apparition, cutting edge scientific research providing critical data on life saving therapies and procedures including healthier foods have undoubtedly improved the quality of life. However, there continues to exist, a labyrinth of problems that require solutions such as cure or preventive measures for diseases, improved crop yield or agriculture practices, preparation and adequate supply of nutritious food to the underprivileged, safeguarding our environment and so forth. These are of national and international importance. With advancement of scientific thinking and technologies researchers have also realized the scientific reasoning of medicinal practices of our forefathers. It is undisputable that such arrivals occur when team experts from various scientific backgrounds meet together and critically discuss the answers to current issues based on their research findings. It is also important to acclaim the novel approaches and ideas towards combating challenges in biological research.

Objectives

- ❖ To gather interdisciplinary groups of researchers, faculties and experts from academia of bio-sciences
- ❖ To create awareness, discuss recent advances highlighting evolving tools and emerging techniques in the area of biological sciences
- ❖ The scientific program will witness an interesting display of dynamic scientific talks, exhibitions, oral presentations and poster presentations
- ❖ To encourage interactive participation by students, scholars, postdoctoral, researchers faculties and industrial professionals to establish networking privileges

Conference Themes:

Agricultural Biotechnology, Drug Discovery, Biomedicine, Marine Biotechnology, Environmental Biotechnology, Bioenergy, Industrial Biotechnology, Pharmacological chemistry, Endophytic biology, DNA damage, Proteomics in Plant Pathology, Multiple Drug Resistance, Latest Technologies in Food Bioprocessing, Biodiversity.

About College:

SDM & MMK established in the year 1990 and is managed by Sri Dharmasthala Manjunatheswara Educational Society (R), Ujire, Karnataka, which runs more than fifty five education institutions around Karnataka, under the able guidance of Padmavibhushana awardee and Dharmadikaari of Sri kshethra Dharmasthala Poojya Dr. D. Veerendra Heggade This institution offers different streams of undergraduate courses in Science, Commerce, management and computer science for 988 women students, in fulfilling the vision "Empowerment of Women to build enlighten society". The college has well developed infrastructure, facilities to accommodate students to involve in both academic and research activities. The students of the institution brought several laurels in various academic and extracurricular activities. This institution has secured 12 (B) and 2 (f) recognition from University Grant Commission, New



Chief Patron

Padma Vibhushana Dr. D. Veerendra Heggade
Hon'ble President,
SDM Educational Society (R), Ujire
Karnataka, India

Speakers



Dr. Madan Thangavelu
Principal Consultant
Genome Consulting
University of Cambridge, UK
& Chairman
Advisory Committee, GASYM



Dr. Deepak K Saini
Associate Professor
Department of Molecular
Reproduction,
Development and genetics
Indian institute of Science,
Bengaluru



Dr. T. V. Ramachandra
Associate faculty
Energy and Wetlands
Research Group,
Centre for Ecological Sciences
Indian Institute of science
Bengaluru



Dr. Ramachandra Kini K
Associate Professor
Department of Studies
in Biotechnology
University of Mysore
Mysuru



Dr. Raghava Rao K S M S.
Chief Scientist
Food Engineering
CSIR-CFTRI, Mysuru.



Dr. A. J. Mahadev Prasad
DST- SERB Young Scientist
Department of Biochemistry
PBMMEC, Mysuru.

REGISTRATION DETAILS:

Delegates from Academic institutions/Industries	: Rs. 750/-
Research Scholars	: Rs. 300/-
Students	: Rs. 150/-

Payment can be made through a Demand Draft drawn in favor of "Principal, MMK & SDM Mahila Maha Vidyalaya", payable at Mysore.

Accommodation can be arranged on prior request and charges should be paid separately by the delegates.

Kindly contact the SASD conveners for further accommodation details. GASYM YOUNG SCIENTIST AWARD will be declared on this occasion for best oral presentation with cash prize & certificate

CALL FOR ABSTRACTS:

The Conference has oral and Poster presentations (Size: 4x3 ft), abstract should be submitted in word document, Times New Roman, Font 12 with 1.5 line spacing and it should not exceed 300 words. Authors are requested to email the soft copy of abstract to sasd2018@sdmmkmysore.in

IMPORTANT DATES:

Last date for Abstract submission	: 2 nd February, 2018
Last Date for Registration	: 10 th February, 2018
Confirmation of the abstract	: 12 th February 2018

Chief Organizer:

Prof. Sainath Malligemadu
Principal
MMK & SDM Mahila Mahavidyalaya,
Mysuru.

Convener:

Mrs. Wethroe Kapfo
Assistant Professor & Head
Department of Biochemistry
MMK & SDM Mahila Mahavidyalaya, Mysuru.

Co-convenor:

Mr. Sunil Kumar C R
Assistant Professor & Head
Department of Biotechnology

Mrs. Atiya Sameen M P
Assistant Professor & Head
Department of Microbiology

Contact Detail:

sasd2018@sdmmkmysore.in
9986781441 / 9164378207
0821-2332865/ 8197469778

Venue: **College Auditorium,**
MMK & SDM MMV, Mysuru-570004



ಗ್ಲೋಬಲ್ ಅಸೋಸಿಯೇಷನ್ ಆಫ್ ಸೈಂಟಿಫಿಕ್ ಯಂಗ್ ಮೈಂಡ್ಸ್
ಸರ್ವರಿಗೂ ಜ್ಞಾನ - ಸಮಾಜಕ್ಕಾಗಿ ವಿಜ್ಞಾನ
GLOBAL ASSOCIATION OF SCIENTIFIC YOUNG MINDS
KNOWLEDGE FOR EVERYONE: SCIENCE FOR SOCIETY

ಗ್ಲೋಬಲ್ ಅಸೋಸಿಯೇಷನ್ ಆಫ್ ಸೈಂಟಿಫಿಕ್ ಯಂಗ್ ಮೈಂಡ್ಸ್

हर किसी के लिए ज्ञान; समाज के लिए विज्ञान

Mr. Marula Sidda Swamy K. M.
Secretary

Date: 15-02-2018

To

The Principal
Chief-Organizer
SASD - 2018

Respected madam,

Sub: List of abstracts selected for GASYM Young Scientist Award - 2018
Ref: MOA/SDM-GASYM/2017-2018 Dated: 20-10-2017

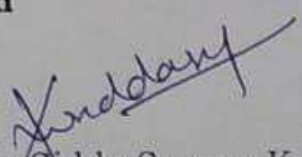
Firstly, many thanks for your co-operation and patience, Hereby I am writing you to convey the decision of expert panel constituted by the President of GASYM to select prospective young scientist for oral presentations. I am herewith enclosing the preference list of candidates for the Young Scientist awardee bestowed by GASYM at the National Conference SASD - 2018 to be held at MMK and SDM, college Mysuru.

I also request you to get the detailed bio-data of the below listed candidates at the earliest.

1. Banana (*Musa* sp. var. Nanjangud rasabale) pseudostem prevents hyperglycaemia-induced oxidative stress in diabetic neuropathy rodent model. **Ramith Ramu**
2. Endophyte mediated induction of defence enzymes to enhance the resistance of turmeric against *Rhizoctonia solani* causing leaf blight. Vinaya Rani G and Prakash H S*
3. Molecular Characterization of Root Rot Causing Fungal Pathogens and standardization of inoculation methods in Mulberry. **Gnanesh B. N***, **Aishwarya .V. Rao**, **Arunakumar G. S**, **Mogili T**, **Sivaprasad V**
4. Plant bioactives attenuates diabetes-induced changes in glucose transporters and insulin signaling molecules in rat brain. **Sandeep M S** and C D Nandini
5. Synthesis and pro-apoptotic activity of Aryl tetralin derivatives. **Ranjini P¹**, **Devaraju Kesagodu^{2*}**, **Chaitramallu²**, **V Krishna³**, **Shilpa⁴**.
6. Diversity of *Magnaporthe oryzae*, the rice blast pathogen Population in different districts of Karnataka, India -**D. Jagadeesh** and **N. S Devaki**

Thanking you

O/C


Marula Sidda Swamy K. M

Secretary

Global Association of Scientific
Young Minds, Mysuru-06

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MMK & SDM Mahila Maha Vidyalaya
Departments of Biotechnology, Biochemistry and Microbiology
In association with
GLOBAL ASSOCIATION OF SCIENTIFIC YOUNG MINDS (GASYM) ®

Activity Report on
Two Day National Confeence on
Scientific Advancements for Sustainable Development
22-23/02/2018

A Two Day National Conference was organized on “**Scientific Advancement for Sustainable Development**” in association with Global Association of Scientific Young Minds (GASYM) ®

President: Dr. B. Yashoverma, Secretary, SDME Society ®, Ujire

Chief Organizer: Prof. Sainath Malligemadu, Principal, MMK & SDM MMV

Convener: Smt. Wethroe Kapfo, Assitant Professor and Head, Department of Biochemistry

Co- Convener: Smt Atiya Sameen, Assistant Professor and Head, Department of Microbiology; and **Sri. Sunil Kumar C.R.** Assistant Professor and Head, Department of Biotechnology

Inaugurator: Dr. Madan Thangavelu, Genome Consultant, Trustee, Cambridge University, London

Guest of Honor for Inuaguration: Dr. Prakash H.S., Professor, DOS in Biotechnology, University of Mysore, Mysuru

Chief Guest for Valedictory Function: Dr. Uliyar Mani, emeritus Professor, DOS in Food Science and Nutrition, University of Mysore, Mysuru

Guest of Honor for Valedictory Funcrion: Dr. Raveesh B.N., HOD, Department of Psychiatry, MMC, Mysuru

Key Note Address: From Data, Information, Knowledge, Wisdom to Consciousness-Driven Sustainability:- The Roles of Science, Scientist and Society

The program was inaugurated by International Scholar, **Dr. Madan Thangavelu**, Principal Consultant and Trustee, Research Council for Complementary Medicine, University of Cambridge, UK who delivered the key note address. He highlighted the interdisciplinary aspects of all branches of science and its wide application to various necessities of human life and deliberated the need to consult India’s ancient scripts for scientific knowledge. The participants were encouraged to acknowledge the current technological accomplishments the wide scope towards discoveries and new inventions for a sustainable future.

On this occasion, **Dr. Prakash H.S.**, Professor, DOS in Biotechnology, University of Mysore, Mysuru received the GASYM Honorary President’s Award. In his speech he


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observed the new areas of science being introduced to the system due to the interdisciplinary link of the subjects and cautioned a consequent redundancy if specialized areas were prioritized over the basic foundations and principles of science. He concluded with remarks that the higher education system plays a vital role to nurture young minds for a sustainable developed life.

Over 200 delegates comprising of faculties from various institutions, research scholars from different Research Centers and PG students from various parts of the nation participated in the conference. The National Conference witnessed a series of dynamic talks from renowned scientists from IISc, CFTRI and University of Mysore, and created a platform to popularize research works of young scientists in the form of oral and poster presentations.

On the next day, the Conference concluded with the Valedictory Function wherein **Prof. Uliyar V. Mani**, Emeritus Professor, DOS in Food Science and Nutrition, UOM, Mysuru, Chief Guest of the occasion delivered the Valedictory Address entitled "Need for coordinated approach of various research methodologies and disciplines for improving the health and nutrition of the community". while **Dr. Raveesh B.N.**, HOD, Department of Psychiatry, MMC. Mysuru advised the audience to be wise using scientific knowledge hence defining sustenance, was the Guest of Honor.

The inauguration and valedictory functions were presided by **Prof. Sainath Malligemadu**, Principal, MMK & SDM Mahila Maha Vidyalaya, Mysuru.

Speakers:

1. Dr. Ramchandra Kini, Associate Professor, DOS in Biotechnology, UOM, Mysuru spoke on "**Proteomics in Plant Pathology**"
2. Dr. Mahadesh Prasad A.J., SERB Young Scientist, PBMMEC, Mysuru spoke on "**DNA damage response in Hematopoietic stem cells**"
3. Dr. Raghav Rao, Chief Scientist, CFTRI, Mysure spoke on "**Recent Developments in Food Technology**"
4. Dr. Srivatsa D, Scientist, IISc, Bengaluru spoke on "**Understanding Multi Drug Resistance**". He came place of Dr. Saini as he was ill.
5. Dr. T.V. Ramachandra was unable to commit to the conference due to unavoidable circumstances

A poster competition and oral competition was held.

Dr. Devaki, Head, DOS in Molecular Biology, Yuvaraja's college, Mysore and Dr. Jyoti Bala Chauhan, Profesor and Head, DOS in Lifescience, Pooja Bhagavat Mmeorial Mahajana Education Centre were the judges for poster presentation.

Dr. Madan Thanagavelu was the judge for oral presentations and presentations for GASYM Young Scientist Award

Winners of Poster Competition:


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I Place: **JANHAVI P**, DEPARTMENT OF BIOCHEMISTRY 2 FRUIT AND VEGETABLE TECHNOLOGY DEPARTMENT, CSIR-CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE, KARNATAKA, INDIA MYSORE-570020 on “**IN VITRO ANTIOXIDANT ACTIVITIES OF POLYPHENOL RICH EXTRACT FROM DIFFERENT PARTS OF GARCINIA XANTHOCHYMUS FRUIT**”

II Place: **PRITHVISH T. V** , DEPARTMENT OF MICROBIOLOGY, FIELD MARSHAL K. M. CARIAPPA COLLEGE, A CONSTITUENT COLLEGE OF MANGALORE UNIVERSITY, MADIKERI - 571201, KODAGU (D), KARNATAKA, INDIA on “**JUSTICIA WYANAADENSIS LEAF EXTRACTS TARGETING QUORUM SENSING IN PSEUDOMONAS AERUGINOSA**”

III Place: **TOQUIER AHMMED KHAN**, DEPARTMENT OF STUDIES IN BIOTECHNOLOGY, POOJA BHAGAVAT MEMORIAL MAHAJANA EDUCATION CENTRE, PG WING OF SBRR MAHAJANA FIRST GRADE COLLEGE, K.R.S. ROAD, METAGALLI, MYSORE-570 016, KARNATAKA, INDIA on “**PHYTOCHEMICAL SCREENING, ALPHA AMYLASE INHIBITORY, ANTIARTHRITIS AND ANTIOXIDANT ACTIVITY OF CISSUS QUADRANGULARIS L.**”

Winner of Oral Presentation:

ABHIJITH P, ECO-BIOTECH LAB, DEPARTMENT OF BIOTECHNOLOGY, UNIVERSITY OF MYSORE, MYSORE, KARNATAKA, INDIA. On “**A STUDY OF INTERACTION BETWEEN LOW FREQUENCY SOUND WAVES AND GERMINATION OF COWPEA SEEDS (VIGNA UNGUICULATA)**”

GASYM Young Scientist Award was conferred to **DR. ARUN KUMAR GS**, SCIENTIST, CENTRAL SERICULTURAL RESEARCH AND TECHNICAL INSTITUTE, MYSORE on “**ROOT KNOT NEMATODE IN MAJOR MULBERRY GROWING AREAS OF SOUTHERN KARNATAKA**”

Number of participants: **200**

The Conference Proceedings is published in International Journal Of Pharma and Bioscience (ISSN No. 0975-6299).

Details of Technical Sessions

I Technical Session: DNA damage response in Hematopoietic stem cells, Dr. Mahadesh Prasad A.J.

Ebf1 is a transcription factor with documented dose dependent functions in both normal and malignant B-lymphocyte development. To understand more about the roles of Ebf1 in malignant transformation, he investigated the impact of reduced functional Ebf1 dosage on early mouse B-cell progenitors. Gene expression analysis suggested that Ebf1 was involved in the regulation of genes important for DNA repair as well as cell survival. Investigation of the DNA damage in steady state as well as after induction of DNA damage by UV light, confirmed that pro-B cells lacking one functional allele of Ebf1 display signs of increased DNA damage. This correlated to reduced expression of Rad51 and combined analysis of 4C and chromatin immunoprecipitation data suggested that Rad51 is a direct target for Ebf1. Although reduced dosage of Ebf1 did not significantly increase tumor formation in mice, a dramatic increase in the frequency of pro-B cell leukemia was observed in mice with combined heterozygous mutations in the Ebf1 and Pax5 genes revealing a synergistic effect of combined dose reduction of these proteins. His data suggested that Ebf1 controls DNA repair in a dose dependent manner providing a possible explanation to the frequent involvement of EBF1 gene loss in human leukemia.

II Technical Session: Proteomics in Plant Pathology, Dr. Ramchandra Kini

Plant-pathogen interactions involve complex two-way communications at biochemical and molecular level. On one hand the plant must be able to recognize and stall a potential pathogen invasion, on the other the pathogen must be able to manipulate the biology of plant to sustain its growth and reproduction. The result of this interaction has a direct bearing on the yield of the crop plants and hence is a subject of intense study over past several decades. Identification of changes in protein levels in plants upon infection with pathogen and the characterization of virulence and pathogenicity factors produced by pathogens are the key issues for successful understanding of plant-pathogen interaction. Recent development in the omics techniques (e.g. genomics, proteomics and transcriptomics) has offered a great opportunity to explore plant-pathogen interaction at molecular level. Proteomics is aimed at identification and quantification of each and every protein in a cell and its actual function mediating specific cellular processes. Although analysis of plant proteome has been widely carried out for several years, it is only

recently that proteomics has been applied for studying plant-pathogen interactions. Proteomics uses gel-based or non-gel based approaches for protein separation followed by mass spectrometry for identification and quantification of proteins. Use of 2D- PAGE or nanoflow LC followed by MS/MS in proteomic platforms allow screening proteins/peptides from plants/pathogens and their interactions at sub-cellular levels. It is also possible to identify post-translations modification such as glycosylation, phosphorylation or cleavage. So far there are more than 120 entries on the ever growing list of plant-pathogen interactions that have been studied using proteomic approaches. Dissecting complex plant- pathogen interactions at molecular level will ensure clear understanding of these systems and eventually be a step forward in building more durable strategies for management of disease caused by pathogens.

III Technical Session: Recent Developments in Food Technology, Dr. K.S. M. S. Raghav Rao

IV Technical Session: Understanding Multiple Drug Resistance, Dr. Deepak Saini

The battle of survival between eukaryotes and prokaryotes has been going on forever and in particular diseases caused by bacteria have been a scourge for the humankind. For time immemorial, human and other life forms have been getting bacterial infections in many forms and formats, which had more or less kept the population of almost all life forms in check. However, the brilliance of human explorations allowed us to develop many anti-microbial approaches. In his talk, he presented a historical account of anti-microbial therapies and how we ended by developing antibiotics, which single handedly (after soap) helped bring down human mortality. He described the mechanisms by which various antibiotics work and where we stand in terms of developing new antibiotics. In the second part of the talk, He elaborated upon the mechanisms by which bacteria can become resistant to various antimicrobials. The discovery platforms which have been aimed to address the rising AMR concern was discussed and in the end some new approaches for antibiotic discovery were presented which aims to address the existing lacunae. Specific examples of discovery of Teixobactin was presented.

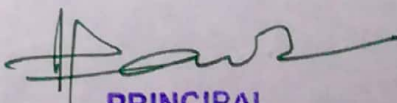


Seen in the Picture (Standing form Left to Right) Dr. Uday Shankar, Asst Professor, UOM and Convener (GASYM); Dr. Geetha N, Asst. Professor, UOM; Smt. Wethroe Vishwas, Asst. Professor & Convener; Sri. Sunil Kumar C.R., Asst. Professor; Prof. Sainath Malligemadu, Principal, MMK SDM MMV; **Dr. Madan Thangavelu, Inaugurator**; Prof. H.S. Prakash, Guest of Honor; Prof. Asha M.V., Principal (PU), MMK SDM; Smt. Sumithra G.R. HOD in Electronics and IQAC Coordinator, SDM MMK MMV.



Seen in Picture (Standing) Prize winners of Oral and Poster Presentation.

(Sitting from Left) Smt. Atiya Sameen, Asst. Professor; Sri Sunil Kumar C.R. Asst. Professor; Dr. Raveesh B.N., Head of Dept of Psychiatry, Mysure Medical College, **Guest of Honor**; Prof. Uliyar Mani, Emeritus Professor, UOM, **Chief Guest**; Prof. Sainath Malligemadu, Principal SDM MMK MMV; Dr. Dr. Madan Thangavelu, Cambridge University; Dr. Rajesh N, Asst. Professor, JSS CACS; Dr. Srivatsa D, IISc, Smt. Wethroe Kapfo, Asst.. Professor & Convener; Smt. Rajeshwari, Asst. Prof.


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Winners of Oral and Poster Presentation

Meet on Scientific Advancements for Sustainable Development

Mysuru, Mar.6 (KS)- A two-day conference on 'Scientific Advancements for Sustainable Development' was organised by the Department of Biotechnology, Biochemistry and Microbiology of MMK-SDM Mahila Maha Vidyalaya, Mysuru, in association with Global Association of Scientific Young Minds (GASYM) at its premises here recently.

The conference was inaugurated by Dr. Madan Thangavelu, Principal Consultant and Trustee, Research Council for Complementary Medicine, University of Cambridge, UK.

In his address, he highlighted the interdisciplinary aspects of all branches of science and its wide application to various necessities of human life and deliberated the need to consult India's ancient scripts for scientific knowledge.

Dr. H.S. Prakash, Professor, DoS in Biotechnology, University of Mysore (UoM), received the



Winners of Oral and Poster Presentation are seen with (sitting from left) Atiya Sameen, Asst. Professor, C.R. Sunil Kumar, Asst. Professor, Dr. B.N. Raveesh, HoD of Psychiatry, Mysore Medical College, Prof. Uliyar Mani, Professor Emeritus, University of Mysore, Prof. Sainath Malligemadu, Principal, SDM&MMK, Dr. Dr. Madan Thangavelu of Cambridge University, Dr. N. Rajesh, Asst. Professor, JSS CACS; Dr. D. Srivatsa of IISc, Wethroe Kapfo, Asst. Professor and Convener and Rajeshwari, Asst. Professor.

GASYM Honorary President's Award on the occasion.

In his speech, he observed the new areas of science being introduced to the system due to the interdisciplinary link of the subjects and cautioned a consequent redundancy if specialised areas were prioritised over the

basic foundations and principles of science. He said that the higher education system plays a vital role to nurture young minds for a sustainable developed life.

Over 200 delegates comprising faculties from various institutions, research scholars and PG students from across the country

participated in the conference which witnessed a series of dynamic talks from renowned scientists from IISc, CFTRI and UoM.

The second day of the conference concluded with the valedictory function wherein Prof. Uliyar V. Mani, Professor Emeritus, DoS in Food Science and Nutrition,

UoM, delivered the valedictory address. Dr. B.N. Raveesh, HoD of Psychiatry, Mysore Medical College, advised the gathering to be wise using scientific knowledge. Prof. Sainath Malligemadu, Principal, MMK&SDM Mahila Maha Vidyalaya, Mysuru, presided over the event.