

SOCIETY OF *Microbiologists* NEWSLETTER 2012



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**Department of Microbiology and
Fermentation Technology**
**SAM HIGGINBOTTOM INSTITUTE OF
AGRICULTURE, TECHNOLOGY & SCIENCES**
Deemed to be University, Allahabad-211007



The year 2008 witnessed the launching of a portal that led to unearthing of a vast repository of knowledge and skills. Established with a view to facilitate the gaining and sharing of knowledge in different areas of microbiology, the Society of Microbiologists at the Department of Microbiology and Fermentation Technology has given a means of strengthening the perspective of budding young intellectuals towards the field.

The Society of Microbiologists as its mission, envisages formulation, establishment and promotion of voluntary academic, professional and technical standards relevant to the profession of Microbiology through the planning and execution of different enterprises that venture to develop and improve organizational and technical expertise that liaises between education, research and industries.

The society further endeavors to highlight through its activities, the immense potential application of microbes with an intention of infusing into the young minds a sense of intrigue and fascination. Various events organized by the Society, based on concerns relevant to the present context have steered the focus of attention on the discovery, plausible applications of prospective microbes and formulating key solutions that affect the welfare of humankind.

The hidden mine of talent that lies buried under the daily grind and drudgery is given a vent to blossom and flourish. The pedestal provided by the society has also been providential in placing of students in positions of repute on completion of their studies.

The Society of Microbiologists is thus a gateway for budding young intellectuals to amass a wealth of knowledge and simultaneously vent their immense potential.

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SOCIETY OF MICROBIOLOGISTS NEWS LETTER ISSUE IV | 2012



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Prof. (Dr.) Rubina Lawrence

Chief Staff Advisor SOM
& Head
Department of Microbiology
and Fermentation Technology

Message

Microorganisms have not only captured our world since time immemorial but also have captured and enthralled the erudite cerebrals from the varied fields of science and technology with their remarkable scope and potential that has made them indispensable to the edifice of our knowledge of life. These unseen majority of ubiquitous nature and incredible applications, from pioneering the life on earth to holding and sustaining the future of human race on the planet, has prolifically given the field of microbiology a consideration as the most diversified appendage of science.

Responding to the emerging needs of juvenile and burgeoning intellectuals, the Society of Microbiologists has served as an elevator taking them closer to the latest developments in the microbial world. Moreover, the society since its establishment has given our young minds a means to showcase the surfeits of technical and artistic skills, thus enabling them to prove their talents. The society through its innovative and interesting mode of functioning has inculcated and rejuvenated the inquisitive streak among the minds of our students to foray into various facets of this field of learning. The society has thus been remarkably instrumental in channeling and endorsing artistic as well as technical skills.

Keeping with its aim the society stands for going beyond the established standards in fostering the juvenile, prying intellects and channelizing them towards attaining academic zenith along with providing unprecedented prospects for their overall personality development. With this endeavor and much more the Society of Microbiologists, established in November, 2008 has successfully completed another eventful session 2011-2012 and stand at the advent of yet another promising year.

The Society instilled with a feeling of cohesion and harmony which underlie each venture is proud of its substantial achievements. It will continue to stride further in its walk towards higher accomplishments.

A handwritten signature in black ink, appearing to read 'Lawrence', written over a faint, stylized graphic element.

[Prof. (Dr.) Rubina Lawrence]

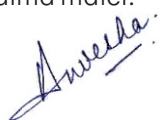
"Education is an admirable thing, but it is well to remember from time to time that not everything that is worth knowing can be taught."

Realizing the quintessence of the enlightening words of Oscar Wilde, the Society of Microbiologists, ever since its establishment in 2008, has been the pioneer in not only professing the stipulation of practical approach of education but also working on the itinerary of bringing the plans to their splendid fruition thereby fostering itself to be transpired as a synonym of brilliance in the past four years. The brimming and ardent efforts of the executive committee and the society members has brought the society to this firmament of expertise.

The coveted world of the miniscule denizens of earth has been efficiently exhumed by various events of the society. Be it guest lectures, seminars, educational trips or the massively successful National Conferences addressing the grave predicament of antimicrobial resistance, every event added few more sequins to the glinting robe of the society. Along with these scholastic activities, co-scholastic pursuits also contributed in enhancing this patina by keeping the spirits of the students soaring high and bestowing them a chance to meddle their imagination and creativity to amalgamate the subject with their artistic dexterity. It has proved to be a perfect podium to converge diverse academic veterans and barter their proficiency in their respective areas of expertise, thereby feeding the juvenile minds with information ranging from DNA Fingerprinting to importance of Bio-fertilizers, from potential of microbes in sustainable living to understanding their capricious behaviour at the genomic level etc.

The society has also played de rigour part in making the career of the young, vibrant microbiologists eager to try their hand in the outer world of practical application of their hard earned knowledge and have got a chance to be placed into various important research institutes and private firms in India and abroad only due to sincere efforts of the society meddled with the hues of their own hard work and perseverance.

It imbues me with immense ecstasy and savour to be a part of such a vibrant society that is all willing to carve out a niche for its members in every doable mode. Serving the society as a president was an enduring experience that is going to linger with me forever. The twilight of this session has been amalgamated with the dawn of another eventful session that prophecies to unfold some more avenues for the refinement of the adroitness of the juveniles, metamorphosing them into highly skilled professionals. I wish that the society touches newer chords of accomplishment and continues to bequeath us a chance to serve our alma mater.



President



Ms. Anvesha

Integrated M.Sc. Microbiology

Presidential Note

Unity Despite Diversity



Mrs. Sweety Gupta

B. Sc. (Hons.) Microbiology &
Fermentation Technology

Vice President

"To keep up with the times we must grasp opportunities. Let it happen here, so that we may have the advantage of early knowledge."

With this stern determination the Society has driven to its mission and objectives and provided the members in its fold with such and numerous opportunities that has been a cornerstone for their prospective growth.

Society of Microbiologists has been a home where unity despite diversity is really our strength. We have come a long way unified in our common interest since our first babystep.

This is where the action is and where the action will be, there are plenteous opportunities and vistas to venture into.

We have what it takes — especially our talented faculty, staff, students and loyal alumni — to achieve far greater academic excellence and the national renown that goes with it.

By putting excellence into action we allow students to write scripts for their lives that are not predefined; rather, this forum frees them to lead authentic lives with both personal and career fulfillment. Society of Microbiologists offers the kind of resources to educate and engage the student community with scientific demeanor. The Society would be remiss if it did not put academic excellence and a myriad of ideas and people at their fingertips. They have to be educated and trained with one key idea as our watchword — that is excellence.

In the Vision of the Society, and our own exertions, our trust and confidence of success have been placed. We have thus landed at a place that we believe is a gem and a marvelous community asset. It is a place where personalities are groomed, futures are molded and careers are built.

Excellence: not an act but a habit



Ms. Brishti Priya
M. Sc. Microbiology

Treasurer

Society of Microbiologists from its small but sure beginnings has grown into a dynamic body though innovative planning with attainment of academic and professional excellence being the commitment of the highest priority. Aristotle stated, "We are what we repeatedly do. Excellence, therefore, is not an act but a habit". This saying has, time and again, with each passing session, been emphasized by the habitual excellence the Society of Microbiologists has exhibited.

The major goal of SOM is to promote research and the open exchange of scientific information for advancement of the field of Microbiology. In particular, the SOM strives to promote ethical conduct of research and training in the areas of microbiological studies.

The Society has provisioned the promotion of teaching, learning and propagating of microbiology through its forum of exchange of information by organizing myriad of activities in the bygone session. SOM has been instrumental in initiating, facilitating and coordinating various scientific activities which involve dissemination of information on current research areas through the guest lectures, ensure the discussion of the results of conferences, symposia and meetings and in the publication of their reports in the form of Newsletter; and maintain contact with other organizations through educational and industrial tours.

The strength, aspirations, and enthusiasm of all the members has been the capstone in the attainment of the accolades the Society has garnered in the past.

In order to plan, organize and execute successful programs, the importance of funds cannot be undermined. The Society has assured of its continuing dedication with the purpose of achieving the best quality and performance through the contributions and participatory efforts made by the members.

With the active involvement of each member we have a much better understanding of the secrets of team work. We will thus be able to climb up career ladder together, preserving this wonderful spirit of competitive cooperation, when, like Dumas' musketeers, we stand all for one and one for all in this collective unit of the Society of Microbiologists.

Inaugural

Session 2011-2012



Handing over

The society of microbiologists has always taken one giant leap after another and gone beyond the congealed standards of excellence with each year of its augmentation. It has perpetually stood as a pioneer in endowing the imperative plinth to its nascent frontiers to equip themselves for future, both on a scholastic as well personal front.

Protracting the preceding trend of pre-eminence, the society completed another dynamic session of 2010-2011 at the dawn of yet another propitious year that was commemorated by a bashful investiture ceremony, the grandeur of which clearly insinuated the echelon of apex the society strived to achieve this year.



Inaugural

Starting afresh on 5th September, 2011, the Society of Microbiologists, under the guiding canopy of Prof. (Dr.) Rubina Lawrence, Chief Staff Advisor, Society of Microbiologists, embarked on

a new journey when the old executive committee members relinquished their charges to the new fervent administrative crew, who pledged to uphold the dignity of their respective posts to the best of their abilities and add further feathers to the cap of the society by their incessant efforts.

The ceremony was graced by the presence of Chief Guest Prof. (Dr.) S. B. Lal, Honorable Pro-Vice Chancellor, SHIATS, Prof. (Dr.) B. P. Masih, Dean, Jacob School of Biotechnology and Bioengineering, SHIATS, Prof. (Dr.) George Thomas, Head, Dept. of Molecular & Cellular Engineering, JSBB, SHIATS, Dr. Kapil Lawrence, Head, Dept. of Biochemical and Bioprocess Engineering, JSBB, SHIATS and Prof. (Dr.) Rubina Lawrence, Head, Department of Microbiology and Fermentation Technology and Chief Staff Advisor, SOM, Deans, Heads and faculty



The Executive Committee

members of various schools of SHIATS, who witnessed this momentous milestone in the splendid journey of the society.

The event unfolded with the opening prayer by Prof. (Dr.) B. P. Masih, Dean, Jacob School of Biotechnology and Bioengineering, SHIATS, following which a brief report summarizing the accomplishments of the previous session was presented by Ms. Jhumur Jha, President, Society of Microbiologists (2010-2011). The newsletter pertaining the detailed



Release of Newsletter SOM 2011

report of the activities of deserting session was released by Prof. (Dr.) S. B. Lal, Honorable Pro-Vice Chancellor, SHIATS, who applauded the laudable efforts of the team of Society of Microbiologists.

The event further proceeded to quench the prying intellects with a special guest lecture by Dr. Gerard Abraham, Principal Scientist, Centre for Conservation and Utilization of Blue Green Algae, Indian Agricultural Research Institute, Pusa, New Delhi on "Simple and Cost Effective Techniques of Bio-Fertilizer Applications", emphasizing about the recent developments in the Bio-fertilizer appliance in modern agriculture. He clearly surfaced the role and benefits of application of



Memento to Dr. Gerard Abraham, Principal Scientist, IARI, N. Delhi

these special denizens of microbial community in the area of agricultural research. The students displaying their intellectual appetite, thus, presented a highly interactive session wherein the speaker further sought a chance to ward off the dust of doubts from their conceptual understanding. The event concluded with a resonant round of applause.



National Conference

NCAR 2012



Mankind thought that it has conquered the mischievous miniscule denizens of earth by discovering the “magic bullets”, well known as antibiotics that would give them an edge over the microbes causing the once fatal diseases. However the unremitting use of these antibiotics ultimately coerced the microbial community to acclimatize themselves to such a high medically opulent milieu by the help of genetic manoeuvring, thanks to their austere, cellular subsistence resulting in the imprudent upsurge of antimicrobial resistance. The quandary of antimicrobial resistance, as a result,

stands at the front among all the predicaments faced by human civilization today in almost every field of human correspondence and thus its impediment becomes a requisite.

With the objective of giving the due to this precarious conundrum of antimicrobial resistance, the well accredited and colossally triumphant 3-day National Conference on Antimicrobial Resistance- A Cause for Global Concern from 6-8th February, 2012 was the next gargantuan event on the activity calendar of Society of Microbiologists, organized by Prof. (Dr.) Rubina

Lawrence, Head, Department of Microbiology and Fermentation Technology and Chief Staff Advisor, Society of Microbiologists.

The conference was actually the second phase of the campaign pioneered in March, 2009 by Society of Microbiologists, to address the grave problem of development of resistance against potent antimicrobials, in the microbial community inhabiting various facets of human existence. The first National conference under the caption of National Conference - from Emerging Threat to Reality, brought into the light the burgeoning quandary of antimicrobial resistance and provided a perfect podium to comprehend the predicament. This second National Conference took the previous convention a step further towards more stern discussions pertaining to the theme, surfacing promising vents to confront the crisis.



Prof. (Dr.) Rubina Lawrence, Organizing Secretary NCAR 2012

The event was inaugurated by the chief guest Rev. Prof (Dr.) R. B. Lal, Honourable Vice-Chancellor, SHIATS who with his impactful words declared the conference open by releasing the Souvenir. The Guests of Honor, Dr. K. K. Tripathi, Advisor Department of Biotechnology and Member Secretary, Review Committee on Genetic Manipulation and Dr. G. J. Samathanam, Advisor, Department of Science and Technology and Head, Technology Development and Transfer Division,

sagaciously underlined the greater concern on this topic for developing and agriculture based nations like India. Prof. (Dr.) S. B. Lal, Pro-Vice Chancellor, SHIATS, Prof. (Dr.) A.K.A Lawrence, Registrar, SHIATS, Prof (Dr.) Arif Broadway, Director Research, SHIATS and Prof. (Dr.) Rubina Lawrence, Organizing Secretary and Head, Department of Microbiology and Fermentation Technology, SHIATS, also exhilarated the occasion by their esteemed presence.

The inaugural function also witnessed the gracious presence of various eminent dignitaries from distinguished institutes of the nation like Indian Council of Agricultural Research, Indian Council of Medical Research, Department of Biotechnology, Government of India, Department of Science and Technology, National Centre for



Chief Guest Prof. (Dr.) R. B. Lal, Hon'ble Vice Chancellor, SHIATS

Disease Control, Banaras Hindu University, National Botanical Research Institute, Sanjay Gandhi Post Graduate Institute, Fortis Health Care, National Equine Centre, Indian Institute of Toxicological Research and Central Drug Research Institute etc.

The conference delineated the eclectic breadth of this imperative issue by addressing various facets of antimicrobial resistance. The three day event was divided into various technical sessions and sub sessions in which scientists,

researchers, healthcare professionals and scholars from all quarters of the country deliberated their respective views relevant to the topic.

The first day of the conference focused on Antibiotics, Agriculture and Super bugs: the sub-theme for the first technical session of NCAR-2012, which dealt with the inexorable use of various classes and subclasses of antibiotics in agriculture, livestock and food systems which led to the outrageous emergence of resistance. It was concluded that the chronic delivery of antibiotics to the animals for enhanced growth on the equivalent magnitude of feed in a view to augment the profits for meat and milk products led to this crucial problem of resistance. Moreover, significant quantities of antibiotics and antibiotic resistant bacteria enter the environment through animal waste produced by animal agriculture operations. Distinguished speakers Dr. B. D. Kaushik, Professor and Dean College of Biotechnology, Anand Engineering College, Agra, Dr. D. Chattopadhyay, Additional Director (Microbiology), NCDC, New Delhi, Dr. Gerard Abraham, Principal scientist IARI, New Delhi, Dr. B. R. Singh, Principal scientist, IVRI, Izatnagar, Dr. R. K. Vaid, Senior Scientist, NRCE, Hisar, Dr. Ravinder Kumar, Assistant Professor, Dept. of Biotechnology, KVA DAV College for Women, Karnal, presented their varied views in this session. Further, Dr. Satendra Gautam, Professor and Head, Food Science and Safety Section, BARC, Mumbai, Dr. Nivedita Sharma, Associate Professor, Dr. Yashwant Singh Parmar Univ. of Horticulture and Forestry, Nauni, Solan stressed on the impact of the problem in food. Noted speakers Dr. Rishi Shanker, Head, Division of Environmental Microbiology, IITR, Lucknow, Dr. Anita Arora, Microbiology consultant, Fortis Health Care, New Delhi, Dr. V. S. Randhawa,



Prof. (Dr.) B. D. Kaushik



Dr. D. Chattopadhyay



Dr. Anita Arora



Dr. R. K. Vaid



Prof. (Dr.) Satyendra Gautam

Professor, Dept. of Microbiology, Lady Hardinge Medical College, New Delhi, Dr. A. J. Tamhanker, Founder, IIMAR, Mumbai, Dr. Poornima Vajpayee, Scientist, Environmental Microbiology, IITR, Lucknow tried to surface the gravity of the matter by presenting their related papers in the sub theme Emergence, Spread and Environmental Effect of Antimicrobial Resistance where it was shown that significant quantities of antibiotics and antibiotic resistant bacteria are entering the environment.

The second day of the National

Conference on “Antimicrobial Resistance” advanced the deliberations on the spread of the peril highlighting on the clinical challenges trying to address it. It was evident that the unprecedented development of pharmaceutical and health-care industries has had an unanticipated and undesirable consequence, namely the emergence and spread of antimicrobial resistance which impedes the efficacy of treatment. This escalates the costs and often results in treatment failure. As more antibiotics get discovered emergence of drug resistance keeps mounting. The session on Regulatory issues on Antimicrobial Resistance the distinguished speakers, Dr. Shabir Simjee, Chair holder, CLSI and Technical advisor, Elanco Companion Animal Health, UK primarily focused on the harmonization of generation, presentation and application of Antibiotic Susceptibility Test data on bacteria of animal origin. Dr. K. K. Tripathi, Advisor, DBT and Member Secretary, Review



Dr. K. K. Tripathi

Medical Research Centre, Haryana, delivered a talk on translational medicine approach for regulation.

The next session on “Clinical Challenges in addressing resistance to antimicrobial drug in the 21st Century focused on the alarming data on dreaded pathogens including totally drug resistant Tuberculosis, *C. difficile*, Extended spectrum β -Lactamase producing Multi drug resistant bacteria



Dr. Shabir Simjee

Committee on Genetic Manipulation, New Delhi elaborated on the issues related to Genetically Modified foods, Dr. G. J. Samathanam, Advisor, DST, New Delhi, spoke on the regulatory aspects of drug development, Dr. Sadhna Srivastava, Scientist C, ICMR voiced concern on the regulatory aspect of the current topic and Dr. Mufti Suhail Sayeed, Vice President (R & D), Venus



Dr. G. J. Samathanam

relevant information were presented by Dr. K. Venkatesan, Deputy Director, JALMA, Agra, Dr. Pallabh Ray, Professor, PGIMER, Chandigarh, Dr. Rama Chaudhary, Professor, AIIMS, New Delhi and Dr. K.N. Prasad, Professor, SGPGI, Lucknow. Dr. Sanyog Jain, Assistant Professor, NIPER, Punjab focused on the aspect of drug delivery. A talk on identification of novel drug targets was

delivered by Dr. Deepa Bisht, Scientist E, JALMA, Agra. In addition, Dr. Gopal Nath, Professor, IMS BHU, Varanasi, put forward a novel strategy involving use of Bacteriophage in order to fight drug resistance.

The concluding day of the National Conference on "Antimicrobial Resistance: A Cause of Global Concern" revolved chiefly around the *In silico* methodologies to formulate novel drugs and



Poster Presentation

pro drugs to suppress the detrimental effects of the maliciously developed resistance among microbial community. Besides, it was by and large granted that novel molecular diagnostics are de rigueur to perk up the clinical care and public health. Such diagnostics aid in prompt identification of affliction due to non-bacterial pathogens that do not need antibiotic remedy, due to bacteria requiring antibiotic therapy, and those due to drug-resistant bacteria. This attenuates the potential and doable exploitation of antimicrobials that has escorted the resistance among the microbial populations. Eminent speakers Prof. (Dr.) Indira Ghosh, JNU, New Delhi, Dr. Girish Majahan, Piramal Life Sciences, Mumbai and Mr. Suchir Arora, Business Decision Group, Gurgaon gave significant report pertaining to the topic. Posters on the various sub-themes of the conference were presented by

Scientist, Research Scholars and students. Oral presentations pertaining to the topic was presented



Shri Mukesh K. Meshram, IAS, Commissioner, Allahabad Division, Allahabad

by several scientist and students.

The valedictory function was graced by Shri Mukesh K. Meshram, IAS, Commissioner, Allahabad Division, Allahabad, as Chief Guest and Dr. P. K. Biswas, Former Advisor, Science and Technology, Planning Commission, Government of India as Guest of Honour. The Honorable Vice Chancellor, SHIATS, Rev. Prof. (Dr.) Rajendra B. Lal presided over the function.

Thus, the core curriculum of the event touched various sectors of antimicrobial resistance. Over 250 participants from various reputed institutes of the country dynamically participated in the conference elevating it to a level of a massive accomplishment. Oral presentations conferred on the severity as well as the actual intricacies to cope up with the proviso. Current findings on the issue and significant recommendations to combat it were also illustrated by way of poster presentations

The Conference thus provided a perfect podium to comprehend the problem and amalgamate with its scientific substitutions in accordance with their technical feasibilities.

Guest Lecture

2012



Dr. A. B. Pant

In this prevailing world, where every solution is actually an aperture to a spectrum of consequential crisis, mankind has been continually in the quest of efficient and enduring techniques to combat fatal diseases and disabilities. The recent fruition of stem cell technology comes to the rescue of human civilization as stem cells emerge as the most potent and credible cells of individuals having the aptitude to renovate into any other serviceable cells of the body. Thus to acquaint the members of the Society of Microbiologists with these enchanting novices of our body, the society hosted a guest lecture on 27th April, 2012, in which Dr. A. B. Pant, Senior Scientist, *In Vitro* Toxicology, Indian Institute of Toxicological Research, Lucknow, threw light upon the most promising topic of humanity in the present idyll under the title of "Stem Cell Technology: The Translational Research". The talk elaborated upon the importance and potential use of stem cells in plethora of medical researches encompassing human life. The students took keen interest in the deliberation that depicted in their earnest participation in questionnaire during the interactive session.

The event was a colossal episode encompassing the lecture and also marked the closing ceremony of the session 2011-2012. The occasion was graced by the esteemed presence of eminent dignitaries of the university, including, Prof (Dr.) Newman Fernandes, Director, Distance Education, and Director Professional and Life Long Education, SHIATS, Prof. (Dr.) B. P. Masih, Dean, Jacob School of Biotechnology and Bioengineering, Deans, Heads and faculties of various schools and departments of SHIATS. The commendable efforts of executive members were applauded by the Chief Guest who congratulated the society for its extraordinary feats this year. A detailed report of the activities of the previous session was presented by Ms. Anvesha, President, Society of Microbiologists, highlighting the achievements of the society during her tenure. The meticulous depiction of the expenses of all the events of the previous session was revealed by Ms. Brishti Priya, Treasurer, Society of Microbiologists (Session 2011-2012).

The culmination of the event marked the petite break in the voyage of Society of Microbiologists and an assurance to be back to the frontier of ligaturing the persisting gap between the academic novices and scholastic expertise by means of an assortment of events. The success of the event as well as the session was an outcome of the pooled efforts of the members that abetted the society to conquer newer zenith in the coming years.

Educational Tour

2012



Education encapsulates the ornate academic erudition and the dexterity to apply them as per ones proviso. In an effort to further spangle the meddling brains of the students and append some sheen to their scholastic intellects, the elegant voyage of the society proceeded further to organize a two day educational tour to Industrial Pollution Control And Corporation, Unnao, Indian Institute of Pulses Research (IIPR), Kanpur and National Sugar institute, Kanpur on 28-29th November, 2011, wherein the final year undergraduate and post

graduate students got an opportunity to explore the outer horizons of research and development. The tour was basically premeditated to familiarize the final year undergraduate and post graduate students with the practical facets of research and development.

The prying crew, accompanied by Mr. Yashab Kumar, Asst. Professor and Ms. Jyotsna K. Peter, Jr. Lecturer, Department of Microbiology and Fermentation Technology, SHIATS, embarked their expedition in the dawn of 28th November, 2011, and headed towards Indian Institute of Pulses Research (IIPR), where they were welcomed by the enthusiastic

Educational Tour



Institute of Sugarcane Research, Kanpur

officials of the institution. Indian Institute of Pulses Research (IIPR) is a national institute established by the Indian Council of Agricultural Research (ICAR) to carry out fundamental deliberated and applied research on chief pulse crops. A detailed description of the ongoing researches and the institute was given by Dr. Senthil Kumar, Scientist who suggested that besides generating indispensable comprehension and



Tannery

material, the institute also develops appropriate production and protection technologies, production and supply of breeder seeds of improved varieties, demonstration and transfer of technologies and strategic coordination of pulse research through wide network of testing centers across the country. The team, then, proceeded to



At the Indian Institute of Pulse Research, Kanpur

National Sugar Institute, Kanpur, where an extensive illustration of the manoeuvre of sugar factory, microbes involved and the formation of sugar was portrayed.

On the second day of the tour, the squad visited the Banther Unnao Industrial Pollution Control and Corporation, Unnao, where they witnessed the actual ongoing process of waste water treatment to refurbish the chemical and microbial quality of waste water before setting them off to rivers. The edifying interaction of students with the officials as well as the workers aided them to get hold of the pragmatic approach of the field of water treatment. On their way to their customary rota back home, the students got an extraordinary vent to visit the tannery industry and amass a life time experience of its operation.

With so much to accrue in such a diminutive interval of time, the students were brimming with a plethora of vivid encounters creating beautiful memoirs that is bound to linger in the hearts and minds of those who were a part of the educational tour, which turned out to be a strikingly heartening episode.



Placements 2012

Al-Ain Dairy
UAE



Microbiologists

- Mr. Mohd. Zeeshan Alam
- Mr. Abhishek Anand
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Thyrocare Technologies
Mumbai

Torrent Pharmaceuticals
Sikkim



- Ms. Sunita Kumari
Integrated M. Sc. Microbiology

R&D Consultant

- Mrs. Rashmi Anand
M. Sc. Microbiology

Abhay Seeds
Aurangabad

Process Executive

Infosys® Bangalore

- Ms. Anjali Singh
M. Sc. Microbiology

Lecturer

Patna Womens College
Patna

- Ms. Ankita Gautam
- Ms. Jaya Phillip
M. Sc. Microbiology





The Society of Microbiologists has come a far-flung way in augmenting the intellectual paradigm of the students of microbiology and other allied branches. The commendable service of the society has not only brought laurels to the Department of Microbiology and Fermentation Technology but also to the University as a whole. I would like to congratulate the Society for completing another successful year and wish all the very best for the future.

■ **Prof. (Dr.) S. B. Lal**, Pro-Vice Chancellor, SHIATS

The rapid and uphill progress the Society has made in its journey, since its establishment is laudable and heartening to see. The students have indeed benefitted a lot from the Society as is evident from the enthusiastic participation of members in organizing and conducting various events. Being in the Society has groomed the personalities and prepared them to face the life ahead. I congratulate the Society for its past achievements and wish the very best for future endeavors.

■ **Prof. (Dr.) B.B. Rai**, Director Development, SHIATS

I am glad and honored to acknowledge with appreciation the contribution of Society of Microbiologists from the Department of Microbiology and Fermentation Technology. The First important fact to be stressed is that this society is totally managed by students under the guidance of Prof. (Dr.) Rubina Lawrence, Chief Staff Advisor of the Society and other faculty members. The society organized five programs in 2011-12. I had the privilege to participate in one of the programmes wherein an expert was invited to talk about stem cells. This session was well attended. What gave me great pleasure was the intervention of students once the talk was over. I wish the society organizes four programs each semester and allow other students to participate. The innovative nature of program will attract students from all streams. I will all the best in 2012-13.

■ **Prof (Dr.) Newman Fernandes**, Director, Distance Education, and
Director Professional and Life Long Education SHIATS

It has been heartening to witness the kind of efforts put by the most functional technical body of the university, working under the banner of Society of Microbiologists in the Department of Microbiology & Fermentation Technology. With its diverse array of events like guest lectures, group discussions, seminars, conferences etc., the society has proved to be a boon for the students to polish their skills and enhance their talents. I wish further escalation for the society in the years to come.

■ **Prof.(Dr.) Gautam Ghosh**, Dean, Allahabad School of Agriculture

On your mind

[Letters]

Members, SOM



The Society has been a source of encouragement and inspiration. Being a member I have always cherished the outcomes and innovative thoughts to this bright field.

■ **Ms. Azlee Fatima**, Integrated M.Sc. Microbiology, Batch 2008

I am fortunate to be a part of the SOM that has provided a platform to interact, to get enlightenment and to enhance our skills.

■ **Mr. Mirza Amanullah Beg**, Integrated M.Sc. Microbiology, Batch 2008

The National conference was a great learning experience which provided the perfect forum for discussions and interactions.

■ **Mr. Dev Pratap**, B.Tech. Biotechnology, I.M., Batch 2010

It has been an honor to be a member of the Society of Microbiologists. The Society has taught me to work as a team. My skills were enhanced and I got a proper platform to increase my skills.

■ **Ms. Jasveen Bajwa**, M.Sc. Microbiology, Batch 2010

Congratulations to the SOM family on completing yet another successful session.

■ **Mr. Kumar Saurav**, B.Tech. Biotechnology, I.M., Batch 2010

The Society rightly deserves all the praise that it gets for achieving and crossing the many milestones in its journey. Wishing it all success in the future.

■ **Mr. Himanshika**, B.Tech. Biotechnology I.M., Batch 2011

The society of microbiologists has been pioneer in equipping the students with various branches of microbiology and allied sciences. It has always helped us enhance the knowledge through various events like guest lectures, conferences and seminars on the burgeoning topics of today's world.

■ **Ms. Mandwi Roy**, Integrated M. Sc. Microbiology, Batch 2008

The interactions with skilled professionals and scientists have always been fruitful in clearing out the dusts on our concepts. I wish to serve the society even more at the organizational level.

■ **Ms. Nidhi Sonkar**, Integrated M. Sc. Microbiology, Batch 2008

The society has not only served the students to break their cocoons and bring out the inner vibrant colours of their respective persona, but also provided perfect podium to flaunt their adroitness.

■ **Ms. Sumana Sannigrahi**, B.Sc. (H) Microbiology, Batch 2009

The society has taken a step further in providing the job opportunities to the students, which is highly commendable and encouraging. This will motivate us to further improve our academic performance and overall personal development.

■ **Mr. Deepak Kumar**, B.Tech. Biotechnology I.M., Batch 2008

The recent deliberations organized by the society covered up topics pertaining the applications of microbial communities and their allied applications. They were truly enlightening and informative.

■ **Ms. Sakshi Agarwal**, B.Sc. (H) Microbiology, Batch 2008

Board, Committee & Appreciations

2012

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APPRECIATIONS

To the active members:

1. Mr. Siddhartha Kumar, Integrated M.Sc. Microbiology, Batch 2008
2. Mr. Dhirenra Pratap Singh, Integrated M.Sc. Microbiology Batch 2008
3. Mr. Mayank Roshan, B.Tech. Biotechnology (Industrial Microbiology), Batch 2009
4. Mr. Deepak Kumar, B.Tech. Biotechnology (Industrial Microbiology), Batch 2008
5. Ms. Jaspreet Kaur, M.Sc. Microbiology, Batch 2011
6. Ms. Niharika Pandey, M.Sc. Microbiology, Batch 2011

2012 The Pioneer

Conference on anti-microbial resistance

ENGINEER NEWS SERVICE ■ ALLAHABAD

The three-day-long national conference on 'Anti-microbial Resistance: A cause for global concern', organised by the Department of Microbiology and Fermentation Technology, began on Monday at the Sam Higginbottom Institute of Agriculture, Technology and Sciences (SHIATS). It centred on the threat of resistance offered by renegade microbes to anti-microbial agents which became a cause of global concern. The Vice-Chancellor, SHIATS, Prof. Rajendra B Lal, who was the chief guest on the occasion inaugurated the function. He said that in the grace of God this institution was able to serve the nation selflessly for more than a century. With these words he declared the conference open and released a souvenir. The guests of honour, Dr KK Tripathi, advisor, Department of Biotechnology and member secretary, Review Committee on Genetic Manipulation, and Dr GJ Samathanam, advisor, Department of Science and Technology and head, Technology Development and Transfer Division, underlined the concern on this topic for developing an agriculture-based nation like India.

The other esteemed guests who attended the meet were Prof. SB Lal, pro-V-C, SHIATS, Prof. AKA Lawrence, Registrar, SHIATS, Prof. Arif Broadway, director, Research, SHIATS, Prof. Rubina Lawrence, organising secretary, and head, Department of Microbiology and Fermentation Technology. SHIATS, introduced the topic of anti-microbial resistance; cause for global concern by focusing on the fact of irrational use of antibiotics and the various regulatory measures required to be taken to curtail the resistance developed due to it. Furthermore, she emphasized on the urgent need for the discovery of new and advanced drugs to check the multi-drug resistance problem. The inaugural function also witnessed the gracious presence of eminent dignitaries from distinguished institutes like the Indian Council of Agricultural Research, Indian Council of Medical Research, Government of India, Banaras Hindu University (BHU), National Botanical Research Institute and Central Drug Research Institute.

The distinguished speakers, Dr BD Kaushik, Professor and Dean College of Biotechnology, Anand Engineering College, Agra, Dr Gerard Abraham, principal scientist IARI, New Delhi, Dr BR Singh, principal scientist, IVRI, Izatnagar, Dr RK Vaid, senior scientist, VTCC, Hissar, and Dr Ravindra Kumar, Assistant Professor, Department of Biotechnology, KVA DAV College for Women, Karnal, presented their views on the sub-theme — antibiotics, agriculture and superbugs.

08 Feb., 2012 Amar Ujala

एंटीबायोटिक से बढ़ी प्रतिरोध की समस्या

नयी। सैम हिगिनबॉटम इंस्टीट्यूट ऑफ एग्रिकल्चर, टेक्नालॉजी एंड साइंसेस के माइक्रोबायोलॉजी एवं फर्मेंटेशन तकनीक विज्ञान विभाग की ओर से 'रोगाणुरोधी प्रतिरोध : एक वैश्विक समस्या' पर आयोजित राष्ट्रीय सम्मेलन में दूसरे दिन विशेषज्ञों को एकजुट होकर काम करने की जरूरत पर बल दिया गया। प्रथम सत्र में सिएलएसआई और तकनीकी सलाहकार, इलाकों के कार्यनिर्वाह पशु स्वास्थ्य डॉ. शम्भू सिमरनी ने कहा कि कई देखावट ऐसी होती हैं जो एक देश को देखकर बताई जाती हैं। वह दूसरे देशों में प्रभावी नहीं होती हैं। ऐसी सोसायटी बननी चाहिए जहाँ विश्व के विशेषज्ञ एक साथ मिलकर काम करें। ऐसी दवा बनाई जो सभी देशों में कारगर हो। अन्य जगतों में आईसीएसआर के वैज्ञानिक डॉ. साधना श्रीवास्तव, डॉ. मुनी सोल सैद आदि ने रोगाणुरोधी प्रतिरोध की महामारी विज्ञान से शुरुआत करते हुए वैश्वीकरण चिकित्सीय दृष्टिकोण पर प्रकाश डाला।

09 Feb., 2012 NIP

Three-day national conference concludes at SHIATS

ALLAHABAD: The three day of the National Conference on 'Antimicrobial Resistance: A Cause of Global Concern' concluded on Wednesday 8th Feb, at Sam Higgin Bottom Institute of Agriculture, Technology & Sciences, Allahabad. The Allahabad Commissioner, Mr. Mukesh K. Meshram, IAS, Commissioner, Allahabad Division, Allahabad was the Chief Guest on the valedictory function and the Guest of Honour was Dr. P.K. Biswas, Former Advisor, Science and Technology, Planning Commission, Government of India. The Vice-Chancellor, SHIATS, Rav. Prof. (Dr.) Rajendra B. Lal presided over the function. Mr. Meshram supported 'V' budget farming while saying that farmers can get more benefit with this technique. He said that if scientists sit together and develop modern technique to solve the problems of farmers then India could be a developed country. The final day of the conference involved chiefly



around the in-silico methodologies to formulate novel drugs and pro drugs to suppress the detrimental effects of the maliciously developed resistance among microbial community. Besides, it was by and large granted that novel molecular diagnostics are needed that may improve clinical care and public health. Such

diagnostics aid in rapid identification of illnesses due to non-bacterial pathogens that do not need antibiotic therapy, due to bacteria requiring antibiotic therapy, and those due to drug-resistant bacteria. This attenuates the possible misuse of antimicrobials that has led to resistance among the microbial populations. Eminent speakers

Dr. Indira Ghosh, JNU, Delhi, Dr. Girish Kumar Jain, CDRI, Lucknow, Dr. Girish Mahajan, Purnima Life Sciences, Mumbai and Mr. Sachin Arora, BD Group, Gurgaon gave scientific reports pertaining to the topic. They also deliberated the confrontations in the pharmacodynamic studies related to discovery of novel drugs against antimicrobial resistant microorganisms along with discernment of the academic world regarding bacterial resistance against commonly used antibiotics. There is a pressing call to develop new drugs as the effectiveness of existing antimicrobials continues to diminish. Each phase of drug development process is designed to accrue the necessary information to assess the probability of technical success for a new chemical entity as a potential option for the existing drugs to counter drug resistant microbes. Continually expanding knowledge - base

supporting the efficacy and safety attributes of these new chemical entities remains the fundamental pathway to drug discovery. Which is done on the basis of pharmacodynamics and pharmacokinetics studies. There are, however, mounting hindrances in the accomplishing these processes, the pros and cons of which were the prime focus of the session. Oral Presentations by concerned delegates also conferred on the severity as well as the actual intricacies to cope up with the proviso. Current findings on the issue and significant recommendations to combat it were also illustrated by way of poster presentations. The conference was a colossal success, converging an assortment of aspects on antimicrobial resistance, at a single platform, in diverse technical sessions during the three days in the conference, reported Prof. (Dr.) Rubina Lawrence, the Organizing Secretary, NCAR-2012.

07 Feb., 2012 Hindustan Times

Conference on antimicrobial resistance begins at SHIATS

HT Correspondent

allahabad.hindustantimes.com

ALLAHABAD: The three-day national conference on 'Antimicrobial Resistance: A cause for global concern', organised by the department of microbiology and fermentation technology, was inaugurated at Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad, (SHIATS) on Monday.

Chief guest vice-chancellor, SHIATS, professor Rajendra B Lal inaugurated the function. He declared the conference open by releasing the souvenir. Dr KK Tripathi, advisor, department of biotechnology and member secretary, review committee on genetic manipulation, and Dr GJ Samathanam, advisor, department of science and technology and head, technology development and transfer division, were the guests of honour.

Prof. Rubina Lawrence, organising secretary, convenor and head, department of micro-



■ Souvenir being released during the national conference at SHIATS on Monday.

HT PHOTO

biology and fermentation technology, SHIATS introduced the topic and focused on irrational use of antibiotics and the various regulatory measures needed to curtail the resistance developed due to it. She emphasised on the urgent need of discovery of new and advanced drugs to retallate the multi-drug resistant phenomena. Other esteemed personalities at the meet included Prof.

SB Lal, pro-vice chancellor, SHIATS, Prof. AKA Lawrence, registrar, SHIATS, Prof. Arif Broadway, director research, SHIATS.

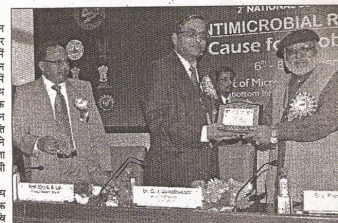
The inaugural function also witnessed the presence of various eminent dignitaries from distinguished institutes of the nation like Indian Council of Agricultural Research, Indian Council of Medical Research and others.

07 Feb., 2012 United Bharat

रोगाणुरोधी प्रतिरोध बेचैनी और अशांति का कारण

(नयी कायालय)

नयी (एलाहाबाद)। सैम हिगिनबॉटम इंस्टीट्यूट ऑफ एग्रिकल्चर टेक्नालॉजी एंड साइंसेस में माइक्रोबायोलॉजी एवं फर्मेंटेशन तकनीक विभाग के शाखाध्यक्ष ने आयोजित तीन दिवसीय राष्ट्रीय सम्मेलन 'रोगाणुरोधी प्रतिरोध : एक वैश्विक समस्या' का शुभारंभ किया। इस अवसर पर आयोजित राष्ट्रीय सम्मेलन में दूसरे दिन विशेषज्ञों को एकजुट होकर काम करने की जरूरत पर बल दिया गया। प्रथम सत्र में सिएलएसआई और तकनीकी सलाहकार, इलाकों के कार्यनिर्वाह पशु स्वास्थ्य डॉ. शम्भू सिमरनी ने कहा कि कई देखावट ऐसी होती हैं जो एक देश को देखकर बताई जाती हैं। वह दूसरे देशों में प्रभावी नहीं होती हैं। ऐसी सोसायटी बननी चाहिए जहाँ विश्व के विशेषज्ञ एक साथ मिलकर काम करें। ऐसी दवा बनाई जो सभी देशों में कारगर हो। अन्य जगतों में आईसीएसआर के वैज्ञानिक डॉ. साधना श्रीवास्तव, डॉ. मुनी सोल सैद आदि ने रोगाणुरोधी प्रतिरोध की महामारी विज्ञान से शुरुआत करते हुए वैश्वीकरण चिकित्सीय दृष्टिकोण पर प्रकाश डाला।



सलाहकार विज्ञान एवं तकनीकी विभाग सह प्रमुख, प्रौद्योगिकी विकास एवं हस्तगत प्रमाण डायग्नोसिस समन्वयक की स्वीति चित्र प्रस्तुत करते हुए राशी प्रो. अश्वी लाल।

प्रतिनिधि शामिल हुए। इस मौके पर विशेष अतिथि सलाहकार प्रौद्योगिकी विभाग सह सलाह प्रमुख व अन्य कर्मियों और वैश्विक मैन्युस्क्रिप्ट डा. के के शिपाठी, सलाहकार, विज्ञान एवं तकनीकी विभाग सह प्रमुख, प्रौद्योगिकी विकास एवं हस्तगत प्रमाण डा. अश्वी लाल ने सम्मेलन की परीक्षा बढ़ाई।

सलाहकार विभाग सह प्रमुख, प्रौद्योगिकी विकास एवं हस्तगत प्रमाण डायग्नोसिस समन्वयक की स्वीति चित्र प्रस्तुत करते हुए राशी प्रो. अश्वी लाल।



The Committee

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