



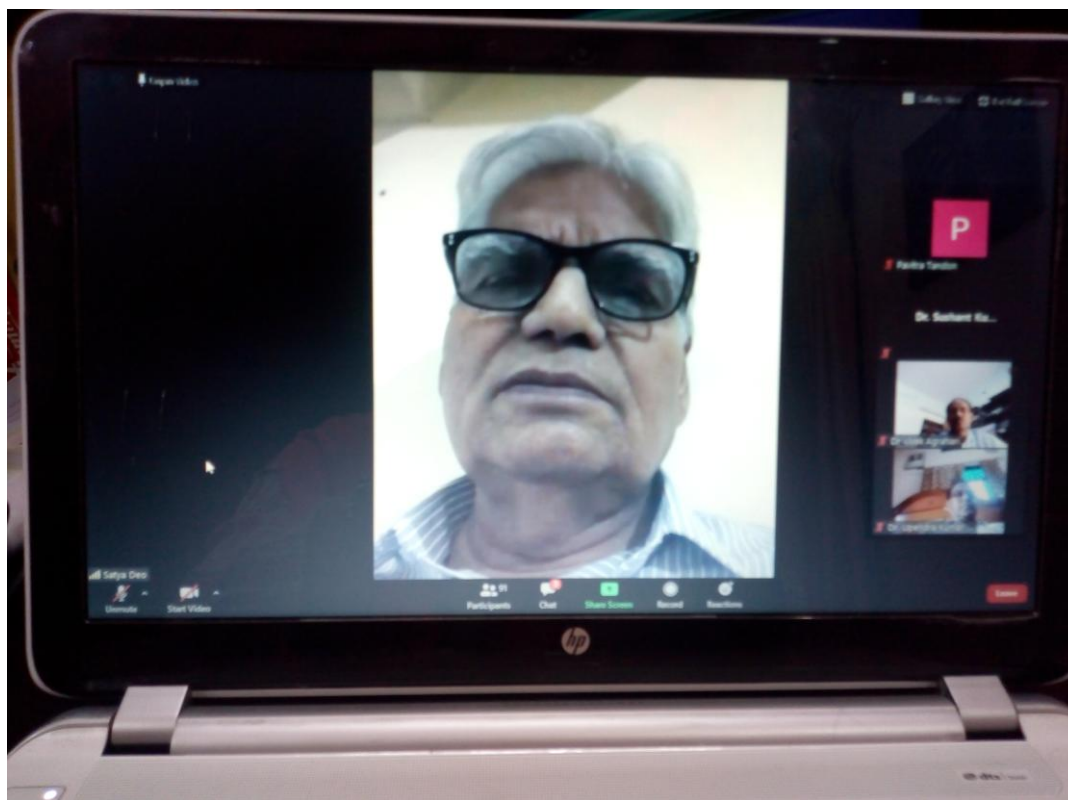
The National Academy of Sciences, India (NASI)

5, Lajpatrai Road, Prayagraj-211002, India

Monthly Summary for the month of May 2020

1. NASI collaborated/organised 'WEBINARS/Online Workshops', in joint collaboration with several institutions (please see the brief report, and the copy of the programme/notice attached herewith as **Annex. 1 'a' & 'b'**) for the UG/PG students, with kind cooperation/support of its Fellows/Members. The topic of the Webinar held on May 14-15, 2020 at Prayagraj was "Challenges of COVID-19 Pandemic and Role of Science and Technology"; and the eminent speakers were Prof. Satya Deo, *FNASc*, Prof. U. C. Srivastava, *FNASc*, Prof. Ravindra Dhar, *MNASc*, Prof. Kailash Uttam, *MNASc*, Prof. Bechan Sharma and several others. It was coordinated by Dr Pavitra Tandon, AES, NASI. The second Webinar was organized at Satna on May 22-23, 2020 in collaboration with the Bhopal Chapter of NASI (coordinated by Dr Shivesh Pratap Singh, Secretary of the Chapter); the topic was 'Advances in Biotechnology for Health, Food & Nutrition to encounter COVID-19', and the eminent speakers were Prof. P. S. Bisen, *FNASc*, Dr Ashok Kumar, AIIMS, Bhopal, Dr Jyoti Vora, Mumbai, Dr Kamlesh Choure, Satna and several other distinguished scientists. These Webinars have become popular; and several institutions are approaching NASI for such collaborative efforts.
2. Several Fellows/Members of NASI wrote scientific/research/popular articles on novel CORONA virus; a few were circulated among all the Fellows of NASI (please see **Annex. 2**).
3. NASI organized a brief programme on the 'Anti-Terrorism Day' on 21st May 2020 (a brief report is attached herewith - Annex. 3).
4. The 'Jharkhand Chapter of NASI', got the masks and sanitizers distributed in the village areas (e.g. by Dr Arvind Sinha, Chairperson, NASI Chapter & Senior Scientist, NML, Jamshedpur and others; please see the report - Annex. 4).
5. Other NASI Chapters also organized online academic/scientific activities.

WEBINAR on “Challenges of COVID-19 Pandemic and Role of Science and Technology” organised by the NASI in association with the University of Allahabad and other institutions of Prayagraj, on May 14-15, 2020



Prof. Satya Deo, GS (HQ), NASI delivering the ‘Key-note Address’ in the WEBINAR

The National Academy of Sciences, India (NASI) organized a two days WEBINAR (coordinated by Dr Pavitra Tandon, Asstt. Executive Secretary, NASI) on May 14-15, 2020, in association with the University of Allahabad, its affiliated colleges and other institutions of Prayagraj. About 100 participants registered themselves to interact with the distinguished speakers through WEB on different topics covered under the theme “Challenges of COVID-19 Pandemic and Role of Science and Technology”. Prof Satya Deo, General Secretary, (NASI) delivered the ‘key-note’ address on “Covid-19 pandemic and the migrant laborers”.

Prof. A.K. Rai, University of Allahabad (UoA) delivered the lecture on “Role of Physics to get rid of COVID-19 and its challenges”. He discussed the various spectroscopic techniques to combat Covid-19. Prof. U.C. Srivastava, Emeritus Professor, UGC and Coordinator, Science Communication Programme, NASI gave an overview of new Corona virus and discussed the importance of nutritious food to enhance the immunity of a human being. Prof. Ravindra Dhar, UoA threw light on the various aspects of Covid-19 and defined the role of Science and Technology to overcome the challenges of this pandemic. Prof. Rajneesh Kumar Srivastava, J.K. Institute of Applied Physics delivered his talk on “Challenge of Social Distancing in Present Context of COVID-19 Pandemic and

SMS based Software "Mobile Q"; and explained the use of mobile software which could be very useful for maintaining the social distancing.

Prof. Bechan Sharma, UoA illustrated biology of SARS-CoV-2 and its therapeutics. Dr. Anil Kumar Singh, Ewing Christian College, UoA discussed the bio-engineering of nCovid-19 and interacted with the participants with enthusiasm during the WEBINAR. Prof. Phool Singh Yadav delivering the lecture on "Enhancement of immunity of body by Yoga Science to safe from Covid-19", correlated Science and Yoga. Prof.N.K Singh, MNNIT, Prayagraj discussed Phytochemicals and Plant virus peptides which may be useful to control SARS-CoV-2. Prof. A.K. Pandey, UoA explained Epidemiology and Control Measures for Covid-19. Prof. Suneet Dwivedi, UoA threw light on emerging environmental scenario in the wake of Covid-19 and discussed different environmental aspects of this pandemic. Prof. K.N. Uttam, UoA described the feasibility of Optical Diagnosis of COVID -19; with the help of Quantun Mechanical Physics to explain the spread of nCorona Virus. He also discussed the various Spectroscopic techniques for its early detection. Dr. Shiv Kumar Mishra, CIPET, Institute of Plastic Technology, Lucknow delivered the lecture on "Nanomaterials: The Future of Personal Protective Equipment for COVID-19". Dr. Pavitra Tandon, Assistant Executive Secretray, NASI explained the integrative and novel approach to combat SARS-COV-2 using Far Infrared Radiation, Alternative System of Medicines and Nutraceuticals; citing several research papers, which are the basis of her work, recently published.

Recommendation(s) of the WEBINAR:

1. There are certain Spectroscopic Techniques like LIBS, ATR, FTIR which could be utilized for testing of pathogens.
2. Quantum Mechanics play an important role for Optical Diagnosis of COVID -19; therefore further research in this field be also encouraged.
3. Electromagnetic Radiations be utilized to disinfect the contaminated surfaces.
4. Environmentalists may contribute to suggest the measures to combat Covid-19, as environmental factors are responsible for the spread of the virus.
5. Certain Mobile Software(s) may also be helpful to maintain Social distancing, measurement of temperature etc.
6. Nutraceuticals, Homeopathic Medicine and YOGA are important to enhance the immunity.
7. Scientists/Researchers should contribute more to combat this pandemic for the sake of humanity.



Bhopal Chapter

Webinar in the Series of Advances in Biotechnology

for Health, Food and Nutrition to Encounter COVID-19

May 22-23, 2020

Eminent Speakers



Prof. P. S. Bisen
Ex. VC, Jiwaji
University



Sh. Anant Soni
Pro Chancellor,
AKS University,
Satna



Dr. R. P. Tiwari
Director, Vanguard
Diagnostics
New Delhi



Dr. Ashok Kumar
Head, Biochemistry Div.
AIIMS, Bhopal



Dr Nilanjan Banerjee
Senior Training
Coordinator, SHRM
Biotechnologies Pvt Ltd WB



Dr. Jyoti Vora
CEO, Dhirang
Consultant,
Mumbai



Ms. Pallavi Mitra
Senior Technologist,
SHRM Biotechnologies
Pvt Ltd, Kolkatta

Virtual Venue:



<https://meet.google.com/php-rbeo-nro>



Organizer
Department of
Biotechnology
AKS University, Satna
(MP) India



Bhopal Chapter

Webinar in the Series of Advances in Biotechnology

for
Health, Food and Nutrition to Encounter COVID-19

May 22-23, 2020

Program Schedule

22 May, 2020

Sr. No	Speaker & Affiliation	Topic	Date and Time Schedule
1.	Prof. P. K. Banik, Vice Chancellor, AKS University, Satna	Welcome Messages & Introductory remarks	22 May, 20 10.45 – 10.55 AM
2.	Prof. P.S. Bisen, Ex. Vice Chancellor, Jiwaji University, Gwalior	Immunotherapy and Immunomodulation in relation to COVID-19	22 May, 20 11.00 AM -12.45 PM
3.	Sh. Anant Soni, Pro Chancellor, AKS University, Satna	Impact of COVID 19 on Human Activity in Future	22 May, 20 12.45 -1.15 PM
4.	Dr. Ashok Kumar, Head, Biochemistry Division, AIIMS, Bhopal	Pathogenesis of SARS-CoV-2 in Human	22 May, 20 1.15– 2.15 PM
5.	Dr. Jyoti Vora, CEO, Dhirang Consultant, Mumbai	Lifestyle and Wellness Perspectives in the times of COVID-19	22 May, 20 2:15 – 3.15 PM
6.	Dr. Harshwardhan, Pro-Vice Chancellor, AKS University, Satna	Concluding Remarks	22 May, 20 3:15 – 3.25 PM

23 May. 2020

7.	Dr Nilanjan Banerjee Senior Training Coordinator, SHRM Biotechnologies Pvt Ltd, Kolkata	Vaccine Design and Development for SARS-CoV-2	23 May. 2020 10:00 -11.15 AM
8.	Dr. R. P. Tiwari Director Technical, Vanguard Diagnostics, New Delhi	Immunodiagnostics for Covid-19	23 May. 2020 11.15 AM-12:00 PM
9.	Dr. Pallavi Mitra Senior Technologist, SHRM Biotechnologies Pvt Ltd, Kolkatta	Analysis and Real-Time PCR Testing of Respiratory Tract Aspirates of COVID-19 Patients	23 May. 2020 12:00-1:15 PM
10.	Dr. Kamlesh Choure Professor & Head Department of Biotechnology, AKS University, Satna (MP)	SARS-CoV-2 R&D in the AKS University, Opportunities to act with us.	23 May. 2020 1.15- 1.30 PM
11.	Prof. Shivesh P. Singh Head, Department of Zoology, Government Post Graduate College, Satna (MP)	Concluding remarks and vote of thanks	23 May. 2020 1.30- 1.45 PM

Hosts



Prof. G. P. Richariya,
Dean, Life Science,
AKSU, Satna



Prof. Shivesh P. Singh
Head, Zoology
Govt. PG College, Satna



Prof. Kamlesh Choure
Head, Biotechnology,
AKSU

Virtual Venue



<https://meet.google.com/php-rbeo-nro>

Live streaming on: AKS
University You Tube
Channel

https://www.youtube.com/channel/UCgS81FB_Cu0jp7HhW7HfdQxA

E-Certificates for Registered Participants



Bhopal Chapter

Webinar in the Series of Advances in Biotechnology

for
Health, Food and Nutrition to Encounter COVID-19
May 22-23, 2020



Registration Link

<https://docs.google.com/forms/d/e/1FAIpQLSf0Hat5dG-GlNcAdy1KITwAG8NacLK1tal7jH53uzm3386DYQ/viewform?vc=0&c=0&w=1>

E-Certificates for Registered Participants

Virtual Venue



<https://meet.google.com/php-rbeo-nro>

Articles recently circulated among the Fellows for dissemination of the ideas/views of some authors on COVID-19.

1. Soft copy of the Article by Santanu Datta & Mrinal K Ghosh (NASI Fellow)

[View: How to test Covid-19 rationally - The Economic Times](https://economictimes.indiatimes.com/news/politics-and-nation/view-how-to-test-covid-19-rationally/articleshow/75765738.cms?utm_source=email_pwa&utm_medium=social&utm_campaign=socialsharebuttons&from=mdr)

The Reverend Thomas Bayes' classic work on probability, 'An Essay Toward Solving a Problem in the Doctrine of Chances', came to public light when his friend and fellow mathematician, Richard Price, published it in 1763, two years after its author's death. The concepts described by Bayes would go on to become the centrepiece in our understanding of ... (details available on the following link) -

https://economictimes.indiatimes.com/news/politics-and-nation/view-how-to-test-covid-19-rationally/articleshow/75765738.cms?utm_source=email_pwa&utm_medium=social&utm_campaign=socialsharebuttons&from=mdr

2. Soft copy of the Article by Madhav G Deo (NASI Fellow)

[Corona Control in India – The Facts](#)

Summary: Covid 19 has devastated the world since it was declared as a pandemic by the WHO in the second week of March 2020. It has already affected some 3 million people of which two hundred thousand are dead. However, the pandemic is uneven in severity. Some 15 Nations, mostly from Western Europe and the US together account for 88% cases and 92% deaths respectively. On the other hand, the total cumulative cases and deaths, so far, in Africa and Oceania are less than their daily number in the US and some European Nations. So mild is the pandemic in some Nations that it should be no health problem for them. In general, Covid 19 is more severe in developed Nations. The exact underlying mechanism for this unevenness is not known. It is believed that this may be due to earlier exposure to cross reacting antigens more prevalent in the challenging environmental hygiene in the third world. There could be other explanations. It is unscientific to categorize every RT-PCR positive person as a case (patient). Wrong media hype, which has terrified people to the extent that everyone thinks that Yamraj is standing outside his/her home, should end immediately. It has resulted in stigmatisation of even just the lab positive cases, although 95% of them would completely recover and lead a normal life subsequently. Progressively sharp rising number of cases and deaths, in the face of the 'lock down', suggests that the modality has not been very effective. Nations without the lock down, if at all, have done better. Just like the H1N1, Covid 19, will soon become a part of repository of the human pathogenic viruses producing sporadic cases. It is necessary that we develop, urgently, a strategy to handle these cases. India, where the pandemic is mild, will make a scientific history by developing patient-oriented, made in India clinical model that will be used Universally. It is time that we take a positive and realistic view of the Covid 19. (Details circulated by email).



Employees attending the programme on the occasion of Anti-Terrorism Day at NASI



SEEDS in association with NASI Jharkhand & CSIR NML Reach out to Villagers for Prevention of COVID-19 (Activity during April-May 2020)

Jharkhand Chapter of The National Academy of Sciences India (NASI) and National Metallurgical Laboratory (NML), in close collaboration with the NGO - SEEDS are spearheading several interventions in tribal villages to cope with the global pandemic. Community women leaders supported by SEEDS are engaged in household level awareness drives in Musabani, Potka, Ghatsila and Dumaria Blocks. Over 5000 face masks have been stitched in six villages by self help group women, thus generating income in their families.

The women leaders are distributing masks and soaps and giving demonstrations of washing hands in the right manner; staying at two arms length from each other and refraining from spitting. In addition to this they are encouraging the villagers to have warm water, turmeric, ginger and garlic daily. The women animators are taking this opportunity to share the information regarding the various entitlements under the PM GaribKalyanYojna and how and when to access the same. It has been found out that villagers have taken the free grain and pulses, the LPG gas, allowances and pension from the banks. It is very encouraging to note that the villagers are adhering to the DOs and DONTs to keep themselves safe from the corona virus.

