

# SLS Newsletter

(e-newsletter of The Society of Life Sciences)

Volume - II

Number 1 & 2

Year - 2021

The e-news letter published by the Society of Life Sciences. Through this official publication, the activities of society and achievements of its members are highlighted. For research paper/review, the Society of Life Sciences publishes a regular Peer Reviewed Biannual Journals.....*National Journal of Life Sciences and Life Science Bulletin*.

## WEB talk ON CAREER OPPORTUNITY

Govt. Degree College, Chenani

## 3<sup>rd</sup> National Seminar

Amity University, Gwalior

## NATIONAL CONFERENCE

D.R.I. - CHITRAKOOT

## National Science Festival BIO Creation 2021

AKS University, Satna



## 7 DAYS SKILL DEVELOPMENT PROGRAM Entrepreneurship Skill for Self Dependency

Govt. P.G. College, Satna



## YOUNG SCIENTIST AWARD-2021

### Report of Society of Life Sciences (Events & Activities)

Dr. Rashmi Singh  
Editor-in-Chief

Dr. R.S. Tomar, Dr. Manoj Tripathi  
Executive Editors of this Edition

Dr. Pragya Khanna  
Managing Editor

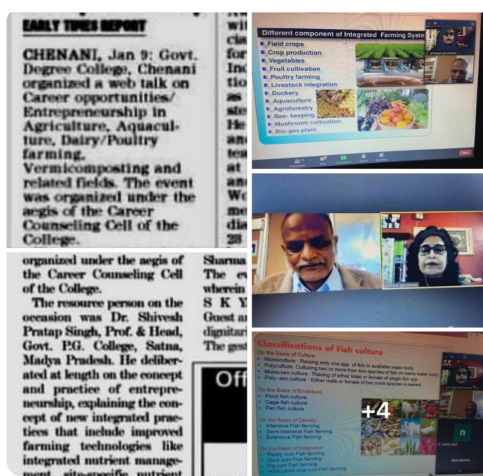


HOME INSERT DESIGN TRANSITIONS ANIMATIONS SLIDE SHOW REVIEW VIEW

# Career Opportunities / Entrepreneurship Development in Current Scenario

**Dr. Shivesh Pratap Singh**  
Professor and Head, Dept. of Zoology  
Govt. P.G. College, Satna (M.P.)

Click to add notes



## 02



Amity Institute of Biotechnology, Amity University, Gwalior in association with National Academy of Sciences, India (NASI), Prayagraj and Society of Life Sciences, organised a National Seminar on "Current Trends in Life Sciences" (NSCTLS-2021) on 29th Jan, 2021 in virtual mode. National seminar was inaugurated by Chief Guest Prof. Akhilesh K. Pandey, Hon'ble Vice Chancellor, Vikram University, Ujjain along with Guest of Honor/Keynote Speaker Prof. Jurg Ott, Professor Emeritus, The Rockefeller University, New York, USA and Hon'ble Vice Chancellor Lt. Gen. V. K. Sharma, AVSM (Retd.), Prof. R.S. Tomar, Dean (Life Sciences) & Dean Academics with other dignitaries online.

There were total 11 technical sessions including four main & three parallel sessions for the oral presentations and invited talks along with four sessions for poster presentations. The presentation and evaluation of oral and poster papers was done on the basis of online presentation performance. There were total 19 invited talks, 1 key note address along with 62 oral and 115 posters were presented during this seminar.

During the valedictory session Chief Guest of the session Dr. Niraj Kumar, Secretary, NASI, Prayagraj (U.P.) addressed audiences online with his valuable words of wisdom. Prizes for best oral and best poster presentations along with 'Young Scientist Awards' were announced by the dignitaries.

## SLS Webinar 2021 3rd National Seminar on Current Trends in Life Sciences 29th January 2021



3<sup>rd</sup> NATIONAL SEMINAR  
ON  
CURRENT TRENDS IN  
LIFE SCIENCES (NSCTLS-2021)  
(VIRTUAL MODE)  
29 January, 2021



Organized by  
Amity Institute of Biotechnology,  
Amity University Madhya Pradesh,  
Gwalior  
(Website: [www.amity.edu/gwalior](http://www.amity.edu/gwalior))

In Association with  
The National Academy of Sciences  
India, (NASI), Bhopal Chapter  
&  
Society of Life Sciences

## एमटी में करंट ट्रेन्स इन लाइफ साइंसेज पर संगोष्ठी आयोजित

**अध्यक्षता**

प्रमुख अतिथि 30 जनवरी। राष्ट्रीय अकादमी के अध्यक्ष प्रो. अखिलेश क. पाण्डेय, उज्जैन विश्वविद्यालय के उपकुलपति, उज्जैन।

मुख्य अतिथि प्रो. जर्ग ओट, रॉकेफेलर विश्वविद्यालय, न्यू यॉक, यूएसए।

उप-अध्यक्ष प्रो. वी.के. शर्मा, एवएसएम (रिटि.) के अध्यक्ष, ग्वालियर।

सह-अध्यक्ष प्रो. एम.पी. काशिक, एमटी के अध्यक्ष, ग्वालियर।

संयोजक प्रो. र.एस. तोमर, एमटी के अध्यक्ष, ग्वालियर।



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विद्वत्संग संगोष्ठी आयोजित। राष्ट्रीय अकादमी के अध्यक्ष प्रो. अखिलेश क. पाण्डेय, उज्जैन विश्वविद्यालय के उपकुलपति, उज्जैन।

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**3<sup>rd</sup> NATIONAL SEMINAR ON CURRENT TRENDS IN LIFE SCIENCES (NSCTLS-2021)**  
29 January, 2021

**Organized by**  
Amity Institute of Biotechnology,  
Amity University Madhya Pradesh, Gwalior

**In Association with**  
The National Academy of Sciences, India,  
(NASI), Bhopal Chapter  
Society of Life Sciences

**ZOOM Links**  
Inaugural Function: <https://amityuni.live/86577029984>  
Valedictory Function: <https://amityuni.live/82446615140>



**Prof.(Dr.) Akhilesh K. Pandey**  
Chief Guest  
VC, Vikram University, Ujjain

**Prof.(Dr.) Jurg Ott, Keynote Speaker**  
Emeritus Professor, Laboratory of Statistical Genetics  
Rockefeller University, New York, USA

**Prof.(Dr.) Shivesh Pratap Singh**  
Secretary, NASI (Bhopal Chapter)

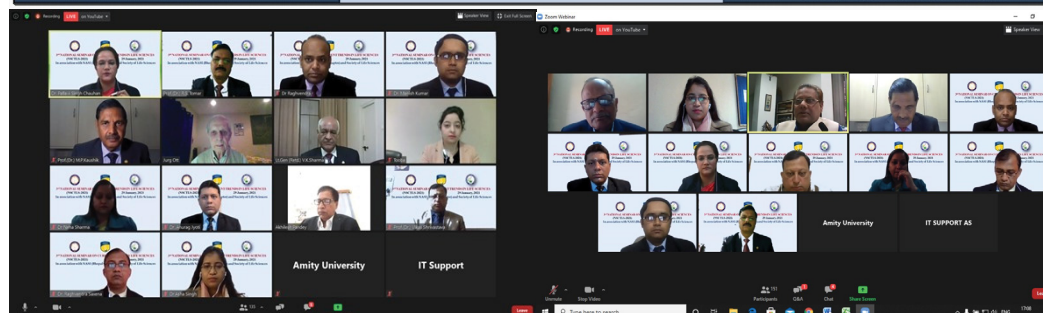
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Amity Institute of Biotechnology,  
Amity University Madhya Pradesh, Gwalior

**In Association with**  
The National Academy of Sciences, India,  
(NASI), Bhopal Chapter  
Society of Life Sciences

**Panelists**  
Lt. Gen. V. K. Sharma, AVSM (Retd.)  
Chairperson  
VC, Amity University Madhya Pradesh

**Prof.(Dr.) M.P. Kaushik, Co-Chairperson**  
ProVC, Amity University Madhya Pradesh

**Prof.(Dr.) R.S. Tomar, Convener**  
Director, Amity Institute of Biotechnology &  
Dean (Academics),  
Amity University Madhya Pradesh



**3<sup>rd</sup> NATIONAL SEMINAR ON CURRENT TRENDS IN LIFE SCIENCES (NSCTLS-2021)**

In association with NASI (Bhopal Chapter) and Society of Life Sciences

January 29, 2021

**ABSTRACT BOOK**

**Amity Institute of Biotechnology**  
Amity University Madhya Pradesh, Gwalior, India



National Conference on "Challenges and recent innovations in herbal drug standardization, quality evaluation and new drug development" was organized on 26-27 February 2021 by Arogyadham (J.R.D. Tata Foundation for Research in Ayurveda & Yoga Sciences) Deendayal Research Institute, Chitrakoot, Satna (M.P.) In Association with Bhopal Chapter National Academy of Sciences, India, CSIR-CMAP, Lucknow and Society of Life Sciences.

In Valedictory session Prof. S.S. Pandey (Ex. Vice Chancellor) was the Chief Guest and Shri Abhay Mahajan, Organizing Secretary DRI was preside the session. Dr. Pooja Soni, Pt. K L S Ayurvedic Govt. College Bhopal, Ms. Neeta Mani. Mahatma Gandhi Chitrakoot Gramodaya Vishwavidalaya Chitrakoot, Mr. Sheelendra Kumar Upadhyay, Mangalayatan University, Jabalpur and Virendra Kumar Pandey, AKS University, Satna were awarded by Society of Life Sciences Young Scientist Award Medal, Citation and two year free subscription of Society journal for Oral and Poster presentation given by Chief Guest. The National Conference successfully organised by Dr. Manoj Kumar Tripathi, SRO & Head (R&D Division) Arogyadham, DRI, Chitrakoot, Satna (M.P.)







**Patron**  
Smt. Anandiben Patel  
HE Governor MP & Chancellor BRAUSS

# Dr B.R. Ambedkar University of Social Sciences, Mhow (M.P.)



**BRAUSS**

**School of Social Sciences, IQAC, UGC STRIDE Project,**  
**Dr. B.R. Ambedkar University of Social Sciences, Dr. Ambedkar Nagar (Mhow)**  
 in association with  
**National Academy of Sciences, Bhopal Chapter**  
**and Society of Life Sciences**  
 on the occasion of World Environment Day

**NATIONAL WEBINAR**

**"Pre and Post Covid -19 Impact on  
Environment and Biodiversity"**

**5th June 2021**

**Time 2.00 to 4.00**

Chairperson	Chief Guest	Co-Chairperson	Convenor
 <b>Prof. Asha Shukla</b> Hon'ble VC BRAUSS, Dr. Ambedkar Nagar	 <b>Padamshree Mahesh Sharma</b> Shiv -Ganga Integrated Rural Development Council, Jhabua	 <b>Prof. Akhilesh Pandey</b> Hon'ble VC Vikram University , Ujjain	 <b>Prof. Deepak Kumar Verma</b> Director & Dean BRAUSS, Dr. Ambedkar Nagar

 **Google Meet**

Join this link : <https://meet.google.com/jzu-ayqn-nqg>

 <https://www.facebook.com/brauss2015/>

 <https://www.youtube.com/channel/UCeIdWabxK0avOvTgIO210A>

SPEAKERS

 <b>Prof. U.C. Srivastava</b> Treasurer, NASI & Prof. Emeritus Dept of Zoology, University of Allahabad	 <b>Prof. Vineeta Shukla</b> Former HOD of Zoology, MD University, Rohtak	 <b>Dr. Rajesh Saxena,</b> Sr. Principal Scientist, MPCOST, Bhopal	 <b>Prof. Shivesh Pratap Singh</b> Prof and HoD, Govt PG College, Satna & Sec. NASI Bhopal Chapter and Gen. Sec., SLS
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Administrative Coordinator

  
**Shri Ajay Verma**  
 Registrar,  
 BRAUSS



Coordinator

  
**Dr. M M P Shrivastava,**  
 NAAC Consultant  
 BRAUSS

<p><b>Technical Coordinator</b>                      Love Kumar Chawdhikar, <i>Project Associate</i>                      UGC STRIDE Project, BRAUSS</p>	<p><b>Assistant Coordinator</b>                      Vinit Patel, <i>Project Assistant</i>                      UGC STRIDE Project, BRAUSS</p>	<p><b>Assistant Coordinator</b>                      Tarun Bhatti, <i>Project Assistant</i>                      UGC STRIDE Project, BRAUSS</p>
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University Website : [www.brauss.in](http://www.brauss.in) [brauss@mp.gov.in](mailto:brauss@mp.gov.in)

Follow :





Dr. B.R. Ambedkar University of Social Sciences, Mhow (Indore), in Association with The Society of Life Sciences and National Academy of Sciences, Bhopal Chapter has jointly successfully organised a National Webinar on **"Pre and Post Covid-19 Impact on Environment and Biodiversity"** on 5th June 2021. Chief guest was Padm Shri Mahesh Sharma, Shiv Ganga Integrated Rural Development Council, Jhabua; Chairperson was Prof. Asha Shukla ,Hon'ble VC, BRAUSS whereas Co-Chairperson was Prof. Akhilesh Pandey, Hon'ble VC, Vikram University, Ujjain. Eminent Speakers of National Webinar were Prof. U.C. Srivastava, Professor Emeritus Department of Zoology; University of Allahabad; Prof. Vineeta Shukla, Former Head Department of Zoology, MD University, Rohtak; Dr. Rajesh Saxena, Sr. Principal Scientist, MPCOST, Bhopal and Prof. Shivesh Pratap Singh, Prof. and HoD, Govt. PG Collage, Satna & Sec. NASI Bhopal Chapter whereas Coordinator of National Webinar was Prof. M.M.P. Shrivastava, NAAC Consultant, BRAUSS.

पर्यावरण एवं जैव विविधता दोनों को  
सही तरीके से संरक्षित करना होगा

महू। बीआर अवेडकर  
सामाजिक शिक्षान  
विधिविद्यालय, महू ने  
विद्य पर्यावरण दिवस  
राष्ट्रीय संगोष्ठी प्री एवं  
पोस्ट कोविड का  
पर्यावरण एवं जैव  
विविधता पर प्रभाव  
नेशनल अकेडमी आफ  
साइंस, इलाहाबाद एवं  
भोपाल चैप्टर, सोसाइटी  
ऑफ लाइवर साइंस,  
सतना के साथ मिलकर  
आयोजित की। संगोष्ठी  
उद्घाटन करते हुए प्र.  
महेश शर्मा ने कहा कि  
आज का दिन पर्यावरण  
सोपने का दिन है। और  
हमारी परंपरा है पर्यावरण  
को संरक्षित रखना और  
उसका उपयोग करना

को रखा पाते हैं यह सिद्ध करना होगा।

एम डी विधायिका हरियाणा की प्राप्ति को की पूर्ण विभागाध्यक्ष सुकला ने बताया।

विधायिका लीकन सहारा प्रदान कर पंचायत का यह पट्टा है।

पाणिपत।  
अखंडकर  
कलशस्त्री प्रोफेसर  
में कहा कि  
रिहात युद्ध  
प्रेम के भावों  
कर पर्यावरण  
जन्म दिया है  
कनाक है।  
जीत विजय  
महाराष्ट्रिय कथा  
सेक्टर के  
मिलेप्रजल मि  
में सार्वभौमिक  
अनुरोधों को  
प्रस्तुत किया।  
संश्लिष्ट के  
मनमोहन प्रकाश  
संश्लिष्ट को प्रप  
कि कोविड-19  
पर्यावरण एवं जी  
पड़ता है। यह  
परिणामों का अ

विश्वविद्यालय की तरफ आता हुआ मनुष्य को से हमारा प्रेम है। किंतु इस को हमने कमजोर समझा और उसे अल्पजल जटिल

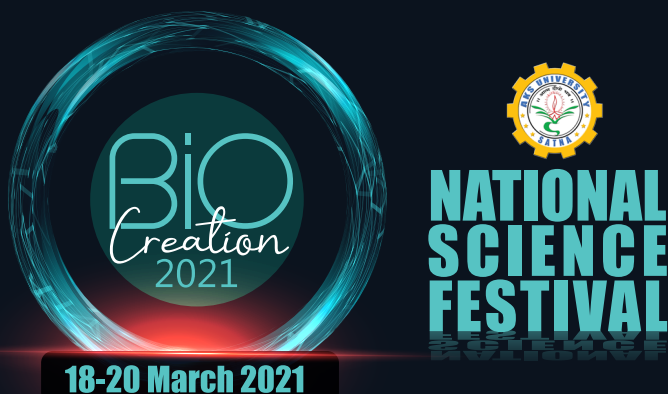
मान परिचय के नाश के भीतर स्थिति खंडित है। इस समीक्षा में पारित की गई सत्य के समन्वय के अंतर्गत प्रत्यक्ष ने करते हुए कहा १९ के कारण विविधता पर और बुरे दोषों से अभ्यस्त किया



National Science Festival "Biocreation 2021" was organized by Department of Biotechnology, AKS University, Satna MP, India during 18, 19 & 20th March 2021. It was based on the central theme of Science Technology and Innovation Policy, Effect on Education and Skill.

## About Bio Creation

Biocreations 2021, the innovative tech fest of Department of Biotechnology, AKS University, Satna(M.P.) is a 3-day congregation of some of the brightest minds of budding scientist in the field of science and technology. The primary objective of this event is to create world leaders who contribute towards the development of the society, and the nation with innovative applications of science and technology. It can also create vision and mission about the use of technical skills to solve the problems of mankind. Biocreations 2021 has been pioneering to bring about a new way of learning with fun. These events generate new skills which can be helpful in many ways in the career of students. One can gain expertise and new ways of thinking to apply their knowledge in society. This event will give opportunity to UG, PG students and Research scholars to learn, compete and gain exposure to innovative platforms to ignite their inherent talent. 19 different activities are planned with dream to give interactive sessions and team work. We are excited to welcome all to join in the Biocreation 2021.



18-20 March 2021

Supported by

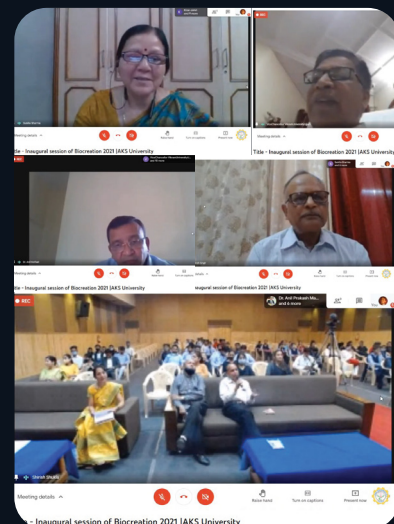


## Inaugural Function

18 March 2021 @ 10:30 AM onwards

Venue: Google Meet and Central Hall, AKS University, Satna

### Hon'ble Speakers and Dignitaries of the Event



Theme of Programme:

Science Technology and  
Innovation Policy Effect  
on Education and skill

Participation Criteria:

Undergraduate and Postgraduate students  
and Research Scholars of Different  
Disciplines/ Courses/ Departments  
of Universities/ Colleges.





**18-20 March 2021**



Department of Biotechnology AKS University, Satna (M.P.)

## NATIONAL SCIENCE FESTIVAL

Supported by



M.P. Council of Science and Technology (MPCST)  
Bhopal (M.P.)



National Academy of Science (NASI)  
Bhopal Chapter



The Biotech Research Society, India



Vibha  
Bharat



Vignani Bharti Mahakaula Vignani Parishad



The Society of Life Sciences  
Satna (M.P.)



(MST) Microbiologists Society, India

National Science Festival "Biocreation-2021" was organized by Dept. of Biotechnology, AKS University, Satna (M.P) from 18, 19, 20th March 2021, In Association with Bhopal Chapter National Academy of Sciences, India (NASI) and Society of Life Sciences (SLS).

The primary objective of this event is to create world leaders who contribute towards the development of the society, and the nation with innovative applications of science and technology. It can also create vision and mission about the use of technical skills to solve the problems of mankind. Biocreation-2021 had pioneered a new way of learning with fun. These events revealed new skills related to career of students. Students achieved expertise and innovative thinking toward the current knowledge. The event provided the interactive competitions for UG, PG students and Research scholars to learn, compete and gain exposure to innovative platforms to ignite their inherent talent. 13 different activities were held with interactive sessions and team work.

More than 1000 participants registered for this event and enjoyed the whole event. All participants were actively participated in each activity (Some events were Bio-Viewers, Modesty play, Bio-Expressions, Bio-viewers, Bio-ignition, Bio-players, Bio-imagers, Creative corner, Bio-brains, Bio-designers, Bio-vision, Micro-tunes, Bio-informatica etc). Students from different colleges of Satna city and also students of different Universities and Colleges from nearby cities also visited and participated.

It is truly a remarkable achievement for AKS University in organizing this Biocreation 2021. A team of very motivated and dedicated faculties of Department of Biotechnology, worked very hard under the guidance of Program coordinator Prof. Kamlesh Choure Head, Dept. of Biotechnology for the grant success of event.

Sr.	Name of Event	Rules and Regulations
01.	<b>Modesty Play</b> (Model making) (Dynamic/ Static)	<ul style="list-style-type: none"> <li>Model can be working/static</li> <li>At least one innovative concept will be included in each model.</li> </ul>
02.	<b>Bio-Expressions</b> (Debate)	<ul style="list-style-type: none"> <li>In each group there will be two debaters, one will speak FOR, while another will speak AGAINST the motion.</li> <li>Medium of expression will be Hindi or English. Paper reading is not allowed.</li> </ul>
03.	<b>Bio-Ignition</b> (Review article writing)	<ul style="list-style-type: none"> <li>Duration will not be more than 1.30 hours.</li> <li>Medium of expression will be English.</li> <li>Review will be based on allotted theme.</li> </ul>
04.	<b>Bio-Vision</b> (Poster Presentation)	<ul style="list-style-type: none"> <li>Medium of expression will be Hindi or English.</li> <li>Poster should be handmade/ printed.</li> <li>Poster will be displayed and presented at the time of event.</li> <li>Duration of presentation will not be more than 10 minutes.</li> </ul>
05.	<b>Bio-Imagers</b> (Technical Rangoli)	<ul style="list-style-type: none"> <li>Duration will not be more than 2 hours 30 minutes.</li> <li>Participants shall bring their own material.</li> <li>The medium and form for expression can be free hand, pictorial and descriptive.</li> <li>The Participants shall have to prepare a rangoli within the space provided by the organizers.</li> </ul>
06.	<b>Micro Tunes</b> (Petri plate painting)	<ul style="list-style-type: none"> <li>Duration will not be more than 10 minutes.</li> <li>Painting will be prepared on material given by organizer.</li> </ul>
07.	<b>Bio-Informacia</b>	<ul style="list-style-type: none"> <li>Duration will not be more than 30 minutes.</li> <li>Activity will be given by organizer at the time of event.</li> </ul>



# Gyan Ganga

**State level training-cum-workshop under subject specific short-term program**

Initiative for Teaching-Learning Excellence in Botany

## New Dimensions of Advance Studies in Botany

(Teaching-Learning, Research and Laboratory Practices)

*February  
15-20, 2021*

**Platform:**

zoom

YouTube

LiveStreaming

**Jointly Organized By :**

*Directorate of College Education Rajasthan, Jaipur*  
*Government College Bundi, Rajasthan*

### Session-IV

**Thursday, February 18, 2021**  
**Time : 10:30 AM - 01:00 PM**

## Applications and Research Methodology in Algae



**Dr. Rashmi Singh**  
Professor & Head Botany,  
Govt. Autonomous P.G. College, SATNA (M.P.)  
**Time : 12:00-01:00 PM**

## General Aspects of Research Methodology in The Field of Phycology



Dr. Rashmi Singh, Editor in Chief SLS News letter delivered invited lecture on "Applications and Research Methodology in algae" in Gyan Ganga programme (Initiative for teaching-learning excellence in Botany) jointly organised by Directorate of College Education Rajasthan and Govt. College Bundi, Rajasthan on February 18, 2021.

Bhopal Birds class room session on "Plant diversity of India" was organised on June 2021, Dr. Rashmi Singh, Editor- in-Chief SLS News letter delivered an invited lecture on "Medicinal plant and their role in boosting immunity against COVID-19" through Zoom meeting.

Dr. Shivesh Pratap Singh, Chief Editor NJLS delivered an invited lecture as a Resource person on World Environment Day 5 June 2021 at Govt. P.G College Satna (M.P.) and Govt. College Bundi (Rajasthan).

He also delivered an invited lecture as resource person in National Training Workshop at Govt. Girl's P.G. College, Ujjain (M.P.) on 18th Sept. 2021





## GOVT. (AUTO.) P. G. COLLEGE, SATNA M.P.

### webinar on

# "Future prospect of environment"



**REIMAGINE  
RECREATE  
RESTORE**  
#GenerationRestoration



**WORLD  
ENVIRONMENT  
DAY**

**World  
Environment  
Day 05 June 2021**

 <b>Dr. R. K. Agrarya</b> VC, APSU	 <b>Dr. A. K. Srivastava</b> Regional Officer at M.P. PCB	 <b>Dr. R. K. Verma</b> SLO, NSS
 <b>Dr. R. S. Gupta</b> Principal Govt. P.G. College, Satna MP	 <b>Dr. S. P. Singh</b> Spenker	 <b>Dr. Kanti Mishra</b> District coordinator NSS
		 <b>Mr. Bhaaskar Chaurasia</b> Program officer NSS

**Google Meet link: <https://meet.google.com/hii-yxup-wkw>**

**Date: 05.06.21; Saturday, Time-12:30 PM**

[illegible]

18.09.2021	
11:00 AM	Program will be Conducted by Dr. Prathiba Akhmad, Assistant Professor, Zoology and Biotechnology Department, Government Girls' P.G. College, Ujjain, M.P.
11:05 AM - 11:10 AM	Welcome Address and About the College by Dr. Neta Tapan, IQAC Coordinator, Govt. Girls' P.G. College, Ujjain, M.P.
11:10 AM - 11:15 AM	<b>Introduction about the Theme:</b> Dr. Leena Lakhani, Professor & Head, Zoology & Biotechnology Department and Convener of the Program, Govt. Girls' P.G. College, Ujjain, M.P.
11:15 AM - 11:20 AM	<b>Guest Introduction and Welcome:</b> Dr. Saroj Vikram Rastanai, Assistant Professor, Zoology and Biotechnology Department, Government Girls' P.G. College, Ujjain, M.P.
11:20 AM - 12:00 PM	<b>Invited Speaker</b> – Dr. Shivesh Pratap Singh, Professor and Head P.G. Dept. of Zoology, Govt. Autonomous P.G. College, Satna (M.P). <b>Topic:</b> "How to Write a Scientific Research Paper"
12:00 PM - 12:10 PM	<b>Discussion</b>
12:10 PM - 12:15 PM	<b>Concluding Remarks and Thanks</b> - Dr. Leena Lakhani, Convener of the program
12:15 PM - 12:20 PM	<b>Guest Introduction and Welcome</b> - Mr. Shashwat Nigam, Faculty of Biotechnology Department, Government Girls' P.G. College, Ujjain, M.P.
12:20 PM - 01:00 PM	<b>Invited Speaker</b> - Dr. D.K. Verma, Dean, Research, Extension and Training, School of Social Sciences, Dr.B.R. Ambedkar University of Social Sciences Mow (M.P). <b>Topic:</b> "Research Writing and Publication Ethics"
01:00 PM-01:10 PM	<b>Discussion</b>
01:10 PM-01:15 PM	<b>Concluding Remarks and Thanks</b> - Dr. Leena Lakhani, Convener of the program
01:15 PM - 01:20 PM	<b>Guest Introduction and Welcome</b> - Ms. Sheroha Khan, Faculty of Biotechnology Department, Government Girls' P.G. College, Ujjain, M.P.
01:20 PM - 02:00 PM	<b>Invited Speaker</b> - Dr. Satish Kumar Malvi, University Librarian, Maharsi Dayanand University, Rohtak-124001, Haryana <b>Topic:</b> "Plagiarism: an Overview and its Preventive Measures"
02:00 PM - 02:10 PM	<b>Discussion</b>
02:10 PM - 02:15 PM	<b>Concluding Remarks and Thanks</b> - Dr. Leena Lakhani, Convener of the program
02:15 PM - 02:20 PM	<b>Presidential Address:</b> Dr. H.L. Anjwal, Principal Patron, Govt. Girls' P.G. College, Ujjain, M.P.
02:20 PM - 02:30 PM	<b>Vote of Thanks</b> - Dr. Leena Lakhani, Convener of the Program

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# National Journal of Life Sciences (NJLS)

(An International Biannual Peer Reviewed Journal of Life Sciences)





## 2<sup>nd</sup> National Workshop on

# Entrepreneurship Skill for Self Dependency

20-26 March 2021



Jointly Organised by  
Govt. P.G. College  
SATNA (M.P.)

AKS University  
SATNA (M.P.)

In Association With  
NASI  
Bhopal Chapter



National workshop on "Entrepreneurship Skill for Self Dependency" organised at Govt. Autonomous P.G. College, Satna from March 20-26, 2021 In Association with Society of Life Sciences & Bhopal Chapter, National Academy of Sciences India and A.K.S University, Satna (M.P.).



The workshop provided an opportunity to the of Science Post Graduate students by Training and demonstration on enhanced value products which offer suitable opportunity and Employability in the field of Entrepreneurship. **Shri Rajesh Kumar Rai**, IFS, Conservator of Forest, Satna delivered the inaugural address on 20 March and said in details the advantage of this type of workshop to students in local available resources. Dr. R.S. Gupta, Principal preside over the inaugural function whereas Dr. Harshwardhan, Pro. Vice Chancellor, A.K.S.University, Satna and Dr. A.K. Shrivastava Regional Officer, M.P. Pollution Control Board Satna were present as Special guest. About hundred Post Graduated and research students were registered and benefited from workshop. Dr. Shivesh Pratap Singh, Prof. & Head Zoology Dept., Govt. P.G. College briefed the participants about the seven days workshop.

एक कदम आत्मनिर्भर मध्यप्रदेश की ओर

विज्ञान स्नातकोत्तर विद्यार्थियों हेतु आयोजित

## उद्घाटन सत्र

राष्ट्रीय स्तर कार्यशाला

### आत्मनिर्भरता हेतु उद्यमिता कौशल

20 से 26 मार्च 2021

कार्यक्रम संयोजक  
जानू विज्ञान एवं वनस्पति विज्ञान विभाग,  
राजकीय स्नातकोत्तर महाविद्यालय, सतना (म.प्र.)  
एवं  
पर्यावरण विज्ञान विभाग, ए.के.एस. विश्वविद्यालय, सतना (म.प्र.)  
कार्यक्रम सन्देशिका  
भोपाल चैप्टर, राष्ट्रीय विज्ञान अकादमी भारत, प्रयागराज (उ.प्र.)

समय : अपरान्ह 02 बजे से  
स्थान : अटल बिल्डिंग सभागार, राजकीय महाविद्यालय, सतना (म.प्र.)

मुख्य अतिथि	अध्यक्षता	विशिष्ट अतिथि	विशिष्ट अतिथि
			
श्री राजेश कुमार राय (आई.एफ.एस.) वन संरक्षक-निता सतना	डॉ. आर.एस. गुप्ता (प्रधान) राजकीय महाविद्यालय-सतना	डॉ. हर्षवर्धन (प्रो. वि.प्र.) ए.के.एस. विश्वविद्यालय	डॉ. अरुण श्रीवास्तव (क्षेत्रीय अधिकारी) म.प्र. प्रदूषण नियंत्रण बोर्ड-सतना

एक कदम आत्मनिर्भर मध्यप्रदेश की ओर  
Sunday, 21st March 2021

-Topic-  
Grow Own Food Through Organic Farming



**Prof. SURENDRA SINGH**  
Department of Biological Science  
Rani Durgavati University  
Jabalpur-482001 (M.P.)



**Prof. R.S. TOMAR**  
Dean (Life Sciences) &  
Dean (Academics),  
Amity University, Gwalior (M.P.)

Online  
Interaction

उद्यमिता कौशल • राजकीय स्नातकोत्तर महाविद्यालय में 7 दिवसीय कार्यशाला का आयोजन

## आत्मनिर्भर बनने के लिए प्राकृतिक संसाधनों की कमी नहीं

नई शिक्षा नीति में तकनीकी शिक्षण पर जोर

डॉ. हरवर्धन ने बताया कि नई शिक्षा नीति में औद्योगिक प्रशिक्षण को बढ़ावा देने के उद्देश्य से विज्ञान एवं प्रौद्योगिकी विभाग की राय प्रकट करने हैं। डॉ. अरुण श्रीवास्तव ने बताया कि युवाओं को योग्य पालने से ही छोटी नौकरी तक सीमित राह नहीं है। नौकरी की खोज में युवा समय बर्बाद कर रहे हैं। अब समय है विज्ञान-तकनीक नौकरी को बनाने के लिए राह खोजने का।



## 2<sup>nd</sup> National Workshop on

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NASI  
Bhopal Chapter



-Topic-

Entrepreneurship through innovation in Science

March 23rd, 2021  
Time 11:00 to 11:40

4th  
Day



Dr. Suphiya Khan

Associate Professor  
Director/Founder Drumlins Water Technologies Pvt. Ltd  
CRISP Oxford fellow,  
INSA-TUBA Fellow Centre for Excellence on Water and Energy  
Banasthali Vidyapith, Banasthali (Rajasthan)

-Topic-

Soft skills and Entrepreneurship

4th  
Day



Prof. Amarjeet Singh

Dean, Faculty of Rural Dev. & Business Management  
Director & Link Officer Chief Minister's  
Community Leadership Programme  
MGCG Vishwavidyalaya, Citrakoot,  
Distt. - Satna (M.P.)

-Topic-  
Entrepreneurial opportunities  
in Biotechnology

March 24th, 2021  
Time 11:00 to 11:40

5th  
Day



Dr. Purnima Sharma  
Managing Director  
Biotech Consortium India Limited  
New Delhi

Online Interaction with

-Topic-  
Employment generation  
Entrepreneurship = Employment

March 24th, 2021  
Time 11:50 to 12:30

5th  
Day



Dr. Sunil Saxena  
Former Secretary Education,  
Art & Culture and Sports  
Daman, Diu & Dadra Nagar Haveli

-Topic-

Scope and Challenges of  
Entrepreneurship in Fisheries Sector

March 25th, 2021  
Time 11:00 to 11:40

6th  
Day



Dr. P.P. Srivastava  
Registrar  
Dr. Rajendra Prasad Central  
Agriculture University,  
PUSA-Samastipur (Bihar)

Online Interaction with

-Topic-

New era of Bamboo,  
Future and opportunities

6th  
Day



Shri Subhash Bhatiya  
President of AB India RAAMA  
(Raw Agarbatti and Allied  
Manufacturers Association)  
Ex. Member MP STATE BAMBOO MISSION

-Topic-  
Schemes for  
Self Dependency

March 22nd, 2021  
Time 11:00 to 11:40

3rd  
Day



Dr. Sanjay SINGH  
Project Officer Watershed Mission, Jila Panchayt, Rewa (M.P.)



Online Interaction with

-Topic-  
Development of Algae based  
Entrepreneurship

March 22nd, 2021  
Time 11:50 to 12:30

3rd  
Day



Dr. Ramakant Ojha  
Associate Professor, Department of Botany, CCS University, Meerut (U.P.)

**Prof. Surendra Singh**, Dept. of Biological Science, Rani Durgavati University, Jabalpur (M.P.) and **Prof. R.S. Tomar**, Dean (Life Sciences) Amity University Madhya Pradesh, Gwalior delivered Guest lectures (Online mode) on 21 March, **Dr. Sanjay Singh**, Project Officer Watershed Mission, Jila Panchayt Rewa and **Dr. Ramakant Ojha**, Dept. of Botany, CCS University Meerut U.P delivered Guest lecture (Online mode) on 22 March, **Dr. Supriya Khan**, Banasthali Vidyapith, Banasthali (Rajasthan) and **Prof. Amarjeet Singh**, Dean,



Faculty of Rural Dev MGCG University, Chitrakoot, Satna (M.P.) delivered Guest lecture (Online mode) on 23 March, **Dr. Purnima Sharma**, Managing Director, Biotech Consortium India Limited, New Delhi and **Dr. Sunil Saxena**, Former Secretary Education, Art & Culture and Sports Daman, Diu & Dadra Nagar Haveli delivered Guest lecture (Online mode) on 24 March. **Dr. P.P. Srivastava**, Registrar Dr. Rajendra Prasad Central Agriculture University, PUSA Samastipur (Bihar) and **Shri Subhash Bhatiya**, Ex. Member M.P State Bamboo Mission, Jabalpur delivered Guest lecture (Online mode) on 25 March 2022.

एक कदम आत्मनिर्भर मध्यप्रदेश की ओर



## 2<sup>nd</sup> National Workshop on

# Entrepreneurship Skill for Self Dependency

—20-26 March 2021—



Jointly Organised by  
Govt. P.G. College  
SATNA (M.P.)

In Association With  
NASI  
Bhopal Chapter



National workshop on "Entrepreneurship Skill for Self Dependency" was organised at Govt. Autonomous P.G. College, Satna, from March 20-26, 2021 In Association with Society of Life Sciences. Field demonstration and practical training was arranged for registered participants at Sonaura Forest Nursery (For demonstration of Bamboo treatment, Agarbatti manufacturing, Bamboo tiles, Bamboo poles, Nursery management), M.P. Pollution Control Board Satna (For Practical training on Air and Water pollution) and at A.K.S. University, Satna (For demonstration of Mushroom farming, Vermicomposting etc).



### Field Demonstration

### Sonaura Forest Nursery

Bamboo Treatment, Agarbatti Manufacturing,  
Bamboo Tiles, Bamboo Poles,  
Nursery Management



In The Direction of  
Shri Rajesh Rai (I.F.S.)  
In-Charge CP & D.F.O.  
Satna (M.P.)



एक कदम आत्मनिर्भर मध्यप्रदेश की ओर



## 2<sup>nd</sup> National Workshop on

Jointly Organised by  
Govt. P.G. College  
SATNA (M.P.)



In Association With  
NASI  
Bhopal Chapter



# Entrepreneurship Skill for Self Dependency

20-26 March 2021



## Valedictory Function & Closing Ceremony



Special remark by  
Prof. Satya Dev Tripathi,  
Hon. General Secretary HQ NASI Prayagraj  
& Ex. V.C., A.P.S. University, Rewa (M.P.)



Valedictory speech on  
Entrepreneurship Skill for Self Dependency by  
Prof. U.C. Srivastava  
Treasurer, National Academy of Sciences India  
& Emeritus Professor, University of Allahabad



Concluding Remarks by  
Dr. Niraj Kumar  
Executive Secretary  
National Academy of Sciences India Prayagraj



Chief Guest  
Closing Ceremony (Offline)  
Shri Divyank Singh, IAS  
SDM, Nagod & Raghuraj Nagar



Prof. B.N. Johri,  
Chairperson  
NASI Bhopal Chapter



Dr. Shivesh Singh  
Secretary NASI  
Bhopal Chapter



Dr. R.S. Gupta  
Principal  
Govt. P. G. College Satna



Er. Anant Soni  
Pro. Chancellor  
AKS University, Satna



Dr. Harshwardhan  
Pro. Vice Chancellor  
AKS University, Satna



Dr. Mahendra Tiwari  
Head Environment Science  
AKS University, Satna

Valedictory function & Closing ceremony of seven days National workshop on "Entrepreneurship Skill for Self Dependency" was organised at A.K.S University Satna, on March 26, 2021. Chief Guest of Valedictory function was **Shri Divyank Singh, IAS**, whereas Special Guests were Er. Anant Soni, Pro Chancellor AKSU, Satna and Dr. Devendra Soni, Regional Director, Central Pollution Control Board Lucknow. Dr. Harshwardhan, Pro Vice Chancellor A.K.S.U, Satna were preside the Valedictory function. Distribution of participation certificates were distributed by guests. On this occasion Valedictory remark by **Prof. Satyadeo Tripathi**, Hon. General Secretary NASI, Valedictory speech by Prof. **U.C. Srivastava** Treasurer NASI and Concluding remarks by **Dr. Niraj Kumar**, Executive Secretary NASI from NASI headquarters Prayagraj was delivered through online mode. A vote of thanks to guests was given by Prof. Shivesh Pratap Singh.



### Online Valedictory Function



### एकेएसयू में सात दिवसीय कार्यशाला आयोजित



### स्टूडेंट्स को दिए कैरियर मंत्र

मिस्ट्री रिप्रेजेंट, सतना  
सात दिवसीय राष्ट्रीय कार्यशाला आयोजनभरवा के लिए उद्यमिता विकास एकेएसयू के समग्र में समापन हुआ। कार्यशाला एकेएसयू तथा जे. विज्ञान विभाग पीजी कॉलेज के संयुक्त तत्वाधान में आयोजित की गई। कार्यक्रम के सह संयोजक डॉ. महेंद्र कुमार शर्मा ने कार्यक्रमों का विस्तृत व्यौरा प्रस्तुत किया। स्वागत-भाषण डॉ. हर्षवर्धन प्रतिकूलरति ने दिया। कार्यक्रम के मुख्य अतिथि दिव्यंक सिंह एसडीएम नागोद रहे। उन्होंने उद्यमिता के 3 मूल मंत्र दिए। उचित लाभ उठाना, अच्छा बाजार ढूंढना तथा जेतु विज्ञान विभाग पीजी कॉलेज के संयुक्त तत्वाधान में आयोजित की गई। कार्यक्रम के सह संयोजक डॉ. महेंद्र कुमार शर्मा ने कार्यक्रमों का विस्तृत व्यौरा प्रस्तुत किया। स्वागत-भाषण डॉ. हर्षवर्धन प्रतिकूलरति ने दिया। कार्यक्रम के मुख्य अतिथि दिव्यंक सिंह एसडीएम नागोद रहे। उन्होंने उद्यमिता के 3 मूल मंत्र दिए। उचित लाभ उठाना, अच्छा बाजार ढूंढना तथा जेतु विज्ञान विभाग पीजी कॉलेज के संयुक्त तत्वाधान में आयोजित की गई। कार्यक्रम के सह संयोजक डॉ. महेंद्र कुमार शर्मा ने कार्यक्रमों का विस्तृत व्यौरा प्रस्तुत किया।

एक कदम आत्मनिर्भर मध्यप्रदेश की ओर



## IMMUNOMODULATOR PLANTS : BETTER TO PREVENT COVID-19 BY BOOSTING IMMUNITY THEN CURE

Corona virus are a group of viruses which are Zoonotic. These are belonging to a large family of viruses known to cause illness ranging from common cold to severe diseases. Corona virus is enveloped, crown shaped virus covered with spikes of peplomers to form corona. It is 120-160 nm in diameter with non segmented genome SSRNA. Envelop of corona virus is consists of two types of proteins embedded in lipid membrane, Haemagglutinin acetyl esterase glycoproteins are small membrane proteins and Spike glycoproteins are large spike shaped membrane proteins. Apart from these membrane proteins this virus has Nucleocapsid protein enclosing RNA.

**COVID-19** shows systemic disorders (affecting the entire body) as well as respiratory disorders. Among systemic disorders fever, cough, fatigue, sputum production, headache, Haemoptysis (coughing up blood), acute cardiac injury, Hypoxemia (low level of oxygen in blood), Dyspnea (difficult breathing) or labored breathing, Lymphopenia (reduced level of Lymphocytes) as well as Diarrhoea are main symptoms. Whereas among respiratory disorders - Rhinorrhoea (excess drainage from nose), Sneezing Sore throat, Pneumonia, Ground glass opacities in CT scan, RNA anemia, acute respiratory distress syndrome are common symptoms.

These symptoms are appeared after an median incubation period of 4 days to 11.5 days, but this period is dependent on the age of patient and also on the patient's immune system. Many of the biochemicals present in medicinal plants in the form of alkaloids, flavonoids, terpenoids, polysaccharides, lactones and glycoside products are responsible to cause alterations in the immunomodulatory properties of human beings.

Immunomodulations has attracted much growing attention of researchers all over the world with increasing awareness regarding the modulation of one's immune system for achieving the objective of preventing the infection of COVID-19, rather than treating it at an advanced stage. With this background a review on medicinal plants has been presented here to elucidate their usefulness in the prevention and treatment of COVID-19, without causing toxic effects.

Indian medicinal plants manifest miraculous effects in curing a vast range of diseases and disorders among humans. Currently there is much growing interest is developed for the use of medicinal plants as immunomodulators, because they contains many bio-chemicals, which alters the immunity.

As we learn daily about this pandemic through various communication medias, that this pandemic is dangerous only for those who's immunity is weak i.e it is purely based on "Survival of fittest" theory. For this deadly virus, we have no prescribed medicines or vaccines for the treatment of disease, all results came through experiments, some experts says that Hydroxychloroquine is best, some other says medicines of AIDS are best, but all these medicines are not enough and they have side effects too. So in this scenario not only India but the whole world is now depends on Ayurvedic medicines.

### What is immunity :

Human body's natural defense system against various infectious disease is known as its immunity. On the basis of function, immune system is classified under two categories i.e. innate immune system and acquired immune system. Both sysditems are capable to generate a limitless variety of cells and molecules to arrest enormous spectrum of infections (Sapori and Kozak,1998).

### How can we boost immunity :

We can boost immunity by supplementing our diet by proteins, minerals, vitamins, macronutrients, micronutrients and trace elements through various medicinal plants (Ibrahim et al.,2015). Food supplements are fruits, dry fruits, nuts, vegetables etc. Continuously living in stress, anxiety and fear will also invite more diseases. Let us start living with more positivity, more awareness and right knowledge.

### Immunomodulators :

The term "Immunomodulators" refers mainly to those substances which are capable of inducing, amplifying and inhibiting any component or phase of the immune system (Singh and Shrivastava,2004). Many medicinal plants act as immunomodulators to cure a variety of diseases. The immunomodulatory effect shown by plants is due to some biochemicals present in them, which work in the same manner as conventional drug (Jayaprakash et al.,2001). But there may be equal chance of these plants to have some potential harmful or toxic effect too. So it is very essential to take these herbal medicines under the guidance of a registered herbal medicine practitioner.

From ancient times, people of all age groups are treated and prevented various diseases through plant based medicines. These medicines have many biochemicals in the form of terpenoids, steroids, phenolics, flavonoids, polysaccharides, lactones and glycoside products, all of these are responsible to manifesting immunomodulatory activities (Caog and Prior,1996). In India more than 70% of total population is dependent on non-allopathic system of medicine, such as Ayurvedic, Yoga, Unani, Siddha, Homeopathy and Naturopathy.

### Medicinal plants used to treat/prevent COVID-19 :

Now a day's Immunomodulatory therapy provides an alternative method to prevent COVID-19. So, here we give a list of some medicinal plants to prevent and cure COVID-19/viral & bacterial diseases.

### Green tea (*Camellia sinensis*) :

All types of tea are made from same *Camellia* plant. Only the process of the formation is different. Both green and black tea are rich in Flavonoids, which is an antioxidant. Green tea have a rich amount of EGCG (Epi Gallo Catechin Gallate). It is a powerful Antioxidant, which boosted our immunity. It destroyed in black tea due to fermentation process, while green tea is processed by steaming not by fermentation, so EGCG retained preserved in it.



## **Giloy (*Tinospora cordifolia*) :**

It is a power house of antioxidants which fight with free radicals, keep cells healthy and get rid of diseases. It has ability to cure any disease. It is a good immunomodulator. It removes toxin, purifies blood, fight bacteria, treat liver and UTI diseases. Antipyretic in nature so treat chronic fever. It is given in all kind of fever. Reduces signs and symptoms of Dengue, Swine flu and Chronic Malaria. Also used for treatment of diabetes. Improves digestion and treating constipation. Excellent health tonic, reduces stress, anxiety and fights respiratory problems, decrease Asthma. Giloy treats arthritis, improve visions, reduces signs of aging. Giloy is hepatoprotective and it contains Diterpenes (Columbine, Tinosporasides), Alkaloids (Palatine, Jatrorrhizine, Berberine and Timbeterine), Tinosporic acid and Tinosporon.

## **Basil leaves (*Ocimum tenuiflorum*) :**

It contains vitamins, bioactive compound Eugenol, Caryophyllene, Bornyl acetate, Camphene, alpha and beta Pinene, Triterpenes, Flavonoids, FA Esters, Chlorophyll and minerals. It is an immunomodulatory medicinal plant used for almost all diseases from cough/cold to cancer. Basil leaves contains antimicrobial, antifungal and antibacterial properties. Also Hypoglycemic, Hypotensive, antipyretic, antistress, antitumour and radioprotective. Basil leaves reduces stress and plasma glucose level. Chew 4-5 Basil leaves daily or infuse it in tea to boost immunity. Powdered ginger, pulverized cloves, cardamom and caraway mixed with Basil leaves make an digestive ailment.

## **Flex seeds (*Linum usitatissimum*) :**

Flex seeds are rich in Omega 3 fatty acid ALA, lignans and fibers. They are best Antioxidant, reduces the risk of the cancer. Improve digestion, lowers blood pressure (BP) and the bad cholesterol level. Prevent diseases by removing free radicals from our body. Flex seeds reduces joint pain and stiffness, improving blood sugar level (Only 13 grams per day for twelve weeks). Presence of lignans reduces the risk of cancer and improve heart health.

## **Ginger (*Zinziber officinale*) :**

Ginger has well known anti inflammatory, anti fungal and anti cancer properties. It also has anti aging property and ability to fight against inflammation in lungs. Traditionally it is extensively used for the treatment of cold, cough, sore throat, nausea, asthma, morning sickness, arthritis, gastrointestinal complaints and even for depression also, because it has about 63 nutrients. It reduces chronic pains. It contains Gingerol, a relative of Capsacin, Sesquiterpene, Zinziberine and Zinziberon. So able to delays pneumonia in adults. Ginger has Cholesterol lowering properties because it helps to thin our blood. It consumed as ginger tea because it is able to fight against Cold and Cough by increasing the production of T cells in blood. Powdered ginger, mixed with pulverized cloves, cardamom, caraway is used as digestive ailments. Boil shredded ginger in water till the half, its daily consumption built our immunity.

## **Garlic (*Alium sativum*) :**

Garlic helps in reducing stress and high blood pressure. It has several minerals, vitamins, amino acids like Cystine, Allin,

Allicin and volatile oils. It also helps to enhance Thiamine (Vitamin B1) absorption in the body. It stimulates the production of WBC which are natural killers of pathogens. Garlic prevents Beriberi. Chopped or crushed garlic works better when it comes in contact with oxygen. It has antioxidant property which helps to fight with infections. It prevents arteries to become hard. Due to presence of Sulphur containing compounds, such as Allicin, it boosted immunity in humans, because it eradicates pathogens inhibiting our immune system. Antiviral peptide present in garlic are beneficial only when we eat it raw with water. Essential to maintain the homeostasis of immune system because it has immuno-regulative compounds.

## **Turmeric (*Curcuma longa*) :**

Turmeric contains a bioactive compound - Curcumin, which is an anti-inflammatory agent. It can help in decrease exercise induced muscle damage. Commonly used in India for curries. It has antihepatotoxic, antiulcerous, anticancerous and antiseptic properties (used to heal wounds). It prevents heart diseases, Alzheimer's and cancer diseases. It has potential antiinflammatory and antioxidant properties which help to improve symptoms of Osteoarthritis and Rheumatoid arthritis, also help to improve symptoms of depression, that is boost functioning our brain. Curcumin used as Kadha, made from grated ginger, tulsi and turmeric, once daily, improve immunity as recommended by AYUSH, for the treatment of COVID-19.

## **Citrus (*Citrus reticulata*) :**

The use of citrus increases production of WBC is the key to fight infections, because our body does not produce or store WBC, so we need daily usages of citrus fruits for continued health. Dose 75 mg daily for women and 90 mg for men is recommended by medical practitioners. Citrus are rich in Vitamins and minerals, so rich in anti inflammatory and antioxidant properties. They also boost brain functions and protect the brain from neurodegenerative disorders. Citrus are great source of soluble fibers which help in lowering cholesterol and aid digestion. They are valuable to prevent micronutrient deficiencies as well to overcome the problems of over nutrition and obesity. Due to presence of flavonoides and vitamins in citrus, it maintain the blood vessels in eyes and reduces the risk of cataracts, lower the risk of kidney stones by raising citrate levels in urine.

## **Ashwagandha (*Withania somnifera*) :**

Ashwagandha is a wonder drug of Ayurveda. It enhances immunity, vigour and vitality. It improves the efficacy of drug. It is rejuvenating drug used by sports persons. The best known tonic. Excellent aphrodisiacs. Best remedy for insomnia, arthrities, rheumatism, joints pain etc. There are several biochemicals are present in Ashwagandha such as **Steroidal lactones** : withanolides; **Alkaloids** : tropane, pseudotropine, hygrine, piperidine.

## **Almond (*Prunus dulcis*) :**

The brown cover of almond is rich source of antioxidant, so always eat it without peeling. It is highly nutritive, fulfils the deficiency of minerals, vitamins, antioxidants, proteins and essential amino acids. These are immunity booster biocompounds. Acts as Prebiotics because it serve as food for beneficial bacteria in our gut. It linked with immunity,



antiinflammation and mental health. Increases Good HDL Cholesterol and lowering Bad LDL levels. Reduces BMI because it has fat soluble vitamins. It requires presence of Fat to absorb properly. Bitter Almonds should be avoided as it contains cynogenic compounds. When it comes to prevent and fight off cold, vitamin E tends to take a backseat to Vitamin C. This powerful Antioxidant is key to the healthy immune system and shiny skin. It contains Alpha tocopherol and Arginine, Polyphenols, Hydroxybenzoic acids, Flavonols, Antioxidant - Flavonoids. Minerals, Vitamins, Free essential FA, Proteins and oils. Socked kernels give more quantity of Vitamins.

### **Broccoli (*Brassica oleracea* var. *italica*) :**

It contains Vitamin A, C and E, fibres and many antioxidants. It also contains Glucosinolate compounds, Isothiocyanates and Sulforaphane. They may destroyed by boiling or overcook so to intact the power of these substances Broccoli are better cooked by steaming, micro waving or stir frying.

### **Spinach (*Spinacia oleracea*) :**

It increases infection fighting ability in our body. Rich in vitamin A, C, K, potassium, magnesium, iron, calcium and manganese Spinach is act as blood builders and appetite stimulant. It is used to treat gastrointestinal complaints. Increase eye health and reduce blood pressure. Presence of Beta carotene, Zeaxanthin, Chlorophyll and Lutein are the immunity booster. Vitamin K strengthens our bone. Presence of vitamin B6 in it, plays a vital role in cell proliferation and antibodies production.

### **Red bell peppers (*Capsicum annuum*) :**

Red bell peppers contains three times as much vitamin C as an Orange. It also rich source of Vitamins A and Beta carotene. Our body converts Beta carotene into Vitamin A, which helps to keep our night vision and skin healthy. It is also a great source of Vitamin B6 and Folate, both of these can prevent Anaemia. They are packed with antioxidant. Due to presence of vitamin A and C with lycopene, it protect prostate and lung cancer. We may burn more calories with red bell papers, because they do not contain Capsaicin, which makes paper hot, but their mild thermogenic action increases our metabolism, without increasing our heart rate and blood pressure.

### **Focus on complete wellness :**

To prevent Covid-19 we may focus on the following points :

- Avoid stress - stress weakens our immune system, so avoid taking stress .
- Physical activity - brisk walking and particularly pranayam is best for strengthening our respiratory system .
- Meditation reduces inflammation and enhances our immune functions. It increases focus and controlled negative thoughts.
- Adequate sleep and rest. helps in hormonal balance, reduces inflammation, decreases disease risk and boost immunity.
- Maintain hygiene.
- Spread love and gratitude.

### **Right eating habit :**

***Following eating habits are essential to stay healthy :***

- Eat cooked food only twice daily.
- Eat more raw vegetables and fruits.
- Eat fruits in empty stomach. It make our system alkaline and build good health.
- Every day eat one small bowl of cucumber and carrot for making our body alkaline. do not eat fruits your meals.
- Drink 2 litre water daily. It help to flush out toxins and maintain a healthy fluid balance.
- Say no to unhealthy food.
- Intermittent fasting by 16/8 hours method.
- Good bye to all addictions.
- Have seeds regularly. Take equal amount of sunflower seeds, pumpkin seeds and flax seeds in a box, mix well, have 2/3 spoons of mixed seeds as evening snacks.

### **What to avoid :**

To prevent COVID-19, here are some points to avoid :

- Avoid hand shake.
- Avoid crowded places.
- Avoid going out unnecessarily and avoid public transport.
- Maintain social distancing and don't panic.
- Avoid close contact with anyone who is sick.
- Wash hands for 20 seconds with hand sanitizer .
- Cover face with mask.
- Avoid touching your eyes, nose and mouth .

**Conclusion :** The use of various medicinal plant extracts may be helpful in obtaining higher protective antibodies against various infections by bacteria, viruses or fungi. So these herbal formulations may be recommended as positive immunomodulators against COVID-19, because of their high efficacy, low cost and low toxicity.

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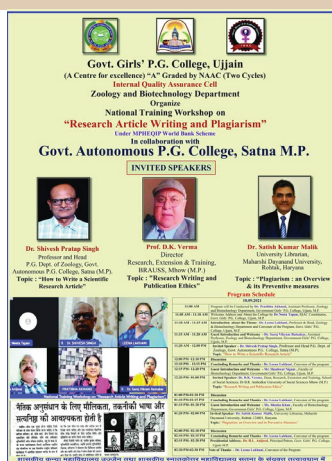
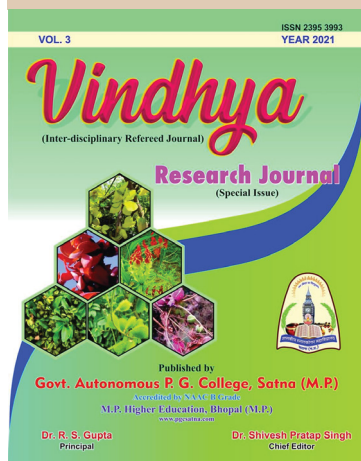
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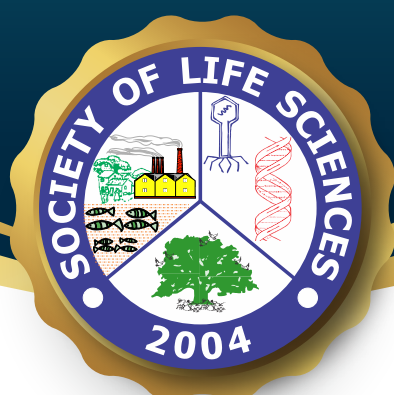
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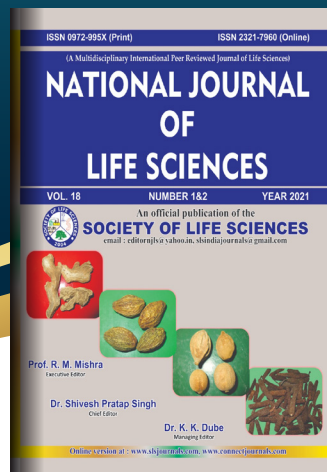
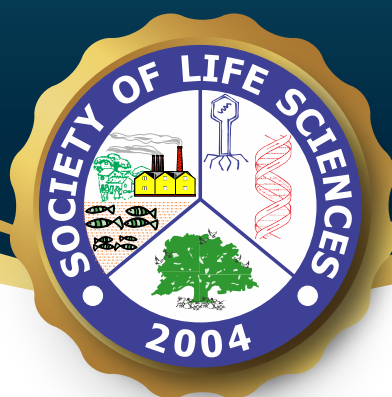
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