

# RMBPD-2022

2<sup>nd</sup> International RMBPD Colloquium

Commemorating 100 years of University of Delhi



Second  
Announcement

# Deciphering Bioregulatory Mechanism in Health and Disease using 'Omics' Approach

Sponsored by UGC-Special Assistance Program

**February 24-25, 2022**

Department of Zoology, University of Delhi

(Hybrid mode)



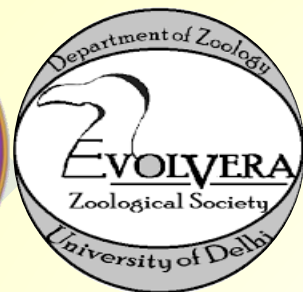
For updates, visit website:  
<http://rmbpd.zoology.du.ac.in/>

For any conference related queries, contact  
Email- [rmbpd2022@gmail.com](mailto:rmbpd2022@gmail.com)

Click here to Register:-  
<https://forms.gle/KL5VjVdjg8kMQWFm7>







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## **About the Conference**

In last decade, technological revolution in molecular and computational biology have transcended the understanding of complex biological phenomena and helped in better understanding of biological interactions within an organism and the outside environment that contributed to the overall health of the organisms.

The spectrum of the field range from addressing basic biochemical pathways to immunological cross-talks, host-pathogen-vector interactions, nutrition, reproductive health and behaviour. Cutting-edge technology is tracking information across different molecular layers (DNA, RNA, proteins, metabolites) and disclosing how are they regulated, processed, and utilised, and how their variation leads to different phenotypes, including diseases, thus opening avenues for new therapeutic interventions. The 'omics' takes an integrated systems-level approach at different scales by developing newer enabling technologies. Global, dynamic and quantitative measurements of biological molecules coupled with the integration of hypothesis and discovery-driven research characterise this newly emerging field of biology.

The synergy between computational and wet-lab groups provides an interactive and collaborative environment to yield unprecedented insights into how genetic information is 'read' and mediates phenotype through molecular networking. The present International colloquium on "Deciphering Bioregulatory Mechanisms in Health & Disease using 'Omics' Approach" will provide a much needed platform that will enable us to discuss and exchange ideas to enhance the understanding of complex regulatory processes leading to the development of interdisciplinary research collaborations.

The conference is being organized under the aegis of Centre of Advance Study in Zoology, University of Delhi. In this 2-day scientific meet, about 20 plenary speakers and large group of young researchers will present their work covering various aspects of the genomics, transcriptomics, proteomics, metabolomics, lipidomics, microbiome and computational biology in different organisms, ranging from insects to mammals including humans.

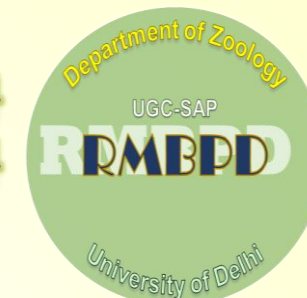
## **Invitation**

Following successful first RMBPD meeting in February 2021, the Department of Zoology, University of Delhi is now organizing an International Colloquium on "Deciphering Bioregulatory Mechanisms in Health & Disease using 'omics' approach" to commemorate the auspicious occasion of The Centenary Celebration of University of Delhi. We warmly extend you an invitation to participate and make this event vibrant and academically fruitful. The theme of the conference is inter-disciplinary in nature to provide platform to budding scientists of various disciplines of biology for interaction with leading scientists and academicians of national and international repute.

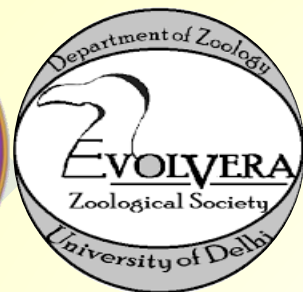
**Neeta Sehgal, Rajagopal Raman**  
(Conveners)

**Anju Shrivastava, Alok Chandra Bharti**  
(Organizing secretaries)

**Umesh Rai**  
(Head, Department of Zoology)

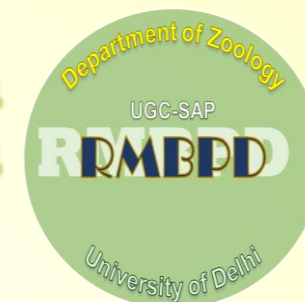






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## Highlights of the Event

- Prof. M. L. Bhatia Memorial Lecture
- Dr. C. P. Alexander Memorial Lecture
- Thematic Sessions (7)
- Oral Pre- Doctoral Presentation Awards (2)\*
- Oral Post- Doctoral/Young Faculty Awards (2)\*
- Poster Competition and Awards (2 Ph.D., 2 Post graduation)\*
- Painting Competition\*
- Essay Writing Competition\*

\*Award includes an appreciation certificate and nominal cash prize. Registration is necessary to participate in the competitions. For further details, please visit the website.

## Themes

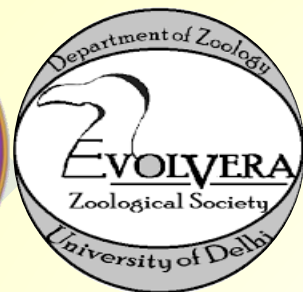
- Cancer Causation and Biomarkers
- Cancer Heterogeneity and its Management
- Host-Parasite Interaction in SARS-CoV
- Host Parasite Interaction
- Behavior and Chronobiology
- Genetics, Epigenetics and Directed Evolution
- Microbiomes

**Pre-conference workshop on Genomics Data analysis for Post-graduate and Doctoral students**

**(Dated: 23<sup>rd</sup> February 2022)**







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## Pre-conference workshop on Genomics Data analysis

**Maximum Intake:**  
**40 students**

**(23<sup>rd</sup> February 2022)**

In Collaboration with ICMR AIIMS Computational Genomics Centre

**Registration fees:**  
**INR 500**

### Lectures:

- Introduction to Genomic Databases, Different Sequencing technologies and terminologies
- NGS Data Analysis - different file formats, tools, and methods
- Introduction to Galaxy, how to perform NGS data analysis on Galaxy server.
- How to access ICMR-AIIMS Genome Centre

### Hands on Training:

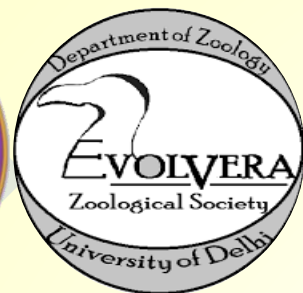
- Galaxy Account Management, Retrieving Raw data.
- Quality Assessment (fastqc, compute quality statistics, draw quality score boxplot, draw nucleotides distribution )
- Processing of Reads (Trim sequences)
- Alignment to Reference/Read Mapping (bowtie2, tophat)
- Results (sam/bam, BEDTools, SAM Tools)
- Downstream analysis
- Visualization

Registration link: <https://forms.gle/tvAYeSJdM12sqLDp9>

- Prerequisites: Basic understanding of molecular biology. Personal laptops required.
- Who can take this workshop: Bachelors and Masters students, PhD Scholars, and Researchers from life sciences
- Each candidate will be awarded with a certificate after successful completion of workshop.
- Lunch and Tea will be provided during the workshop







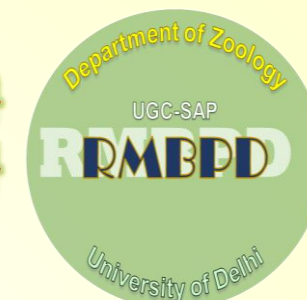
# 2<sup>nd</sup> International RMBPD Colloquium

## Deciphering Bioregulatory Mechanism in Health and Disease using 'Omics' Approach

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**Dr. Anurag Agrawal**  
CSIR-IGIB  
INDIA

**Ravindra Chandra Joshi**  
Philippine Rice Research Institute,  
Philippines

**Prof. Akhilesh Pandey**  
Laboratory Medicine & Pathology,  
UNITED STATES OF AMERICA

**Dr. Bala S. C. Koritala**  
CCHMC  
UNITED STATES OF AMERICA

**Prof. Dipali Sharma**  
SKC Cancer Centre  
UNITED STATES OF AMERICA

**Dr. Santanu Dasgupta**  
Mitchell Cancer Institute,  
UNITED STATES OF AMERICA

**Prof. Takashi Yoshimura**  
Nagoya University,  
JAPAN

**Prof. Thomas Dandekar**  
University of Würzburg Am Hubland  
GERMANY

**Dr. Ralf Jauch**  
University of Hong Kong  
CHINA

**Dr. Andrew P. Hutchins**  
SUSTech  
CHINA

**Dr. Andaleeb Sajid**  
NIH,  
UNITED STATES OF AMERICA

**Dr. Rajesh Pandey**  
IGIB, New Delhi  
INDIA

**Dr. Amit Dutt**  
ACTREC, Navi Mumbai,  
INDIA

**Dr. Dinesh Gupta**  
ICGEB, New Delhi,  
INDIA

**Prof. G.P.S. Raghava**  
IIIT, New Delhi,  
INDIA

**Dr. J. S. Maras**  
ILBS, New Delhi,  
INDIA

**Dr. Priti Saxena**  
South Asian University  
INDIA

**Dr. Amit Awasthi**  
THSTI  
INDIA

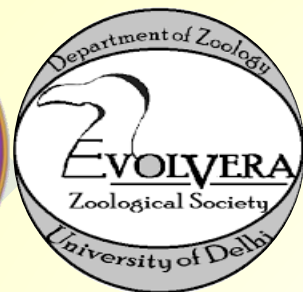
**Prof. Yogendra Singh**  
Department of Zoology, DU  
INDIA

**Prof. Shandar Ahmad**  
JNU, New Delhi  
INDIA

**Prof. Ram Krishan Negi**  
Department of Zoology, DU  
INDIA







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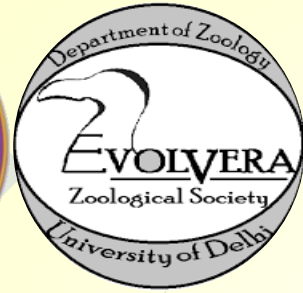
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### *University of Delhi*

- 
- The University of Delhi is a premier university of the country with a venerable legacy and international acclaim for highest academic standards.
  - It was established in 1922 as a unitary, teaching and residential University by the Act of the then Central Legislative Assembly.
  - Its long-term commitment to nation building and unflinching adherence to universal human values are reflected in its motto: 'Nishtha Dhriti Satyam' 'निष्ठा धृति सत्यम्' (Dedication, Steadfastness and Truth).
  - Foster all-round development of students through multi-faceted education and sustained engagement with local, national and global communities, and nurture lifelong inspired learners from across the globe in line with our cultural ideal of 'Vasudhaiva Kutumbakam'.
- The steady progression of the University in terms of academic, co-curricular achievements as well as social outreach has touched the imagination of our nation.
  - The University is completing 100 years and a momentous occasion to reflect upon our institutional success, achievements and glory. Present conference will serve as a catalyst to start year long celebration in the campus and dedicate ourselves towards cause of furtherance of higher education nationally and globally.
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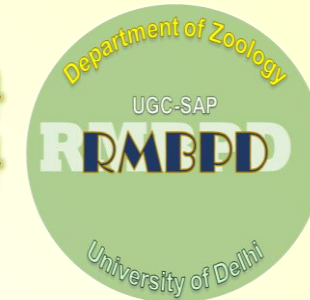


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### *Department of Zoology*

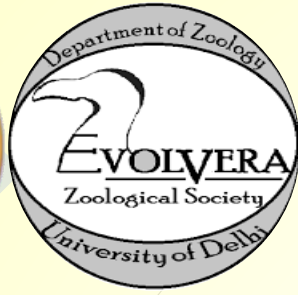
- Following its inception in 1947, under the leadership of Prof. M.L. Bhatia, the Department of Zoology has been recognized as the Centre for Advanced Studies (CAS) since 1963 and has continued to maintain this status till date.
- The department is well known premier centre for research and teaching in basic, applied and advanced areas of Zoology.
- Technically-advanced central-instrument facility with modern infrastructure, Information Technology based Classrooms for online teaching and 7 GLP standard laboratories for conducting practical are the major advancements in the last few decades.
- An independent animal house facility of the department is well equipped for maintaining the colonies of different model organisms to be used for conducting experiments.
- The museum is having a rich collection of rare animal specimens and was the first 'Natural History Museum' in the country.

- Alumni are doing exceptionally well as teachers, scientists and policy makers at various universities and research institutions across India and abroad.
- Faculty of the department are recognized Internationally, members of several Academies (INSA, IAS, NAS, NAAS) and recipients of many awards/fellowships (J C Bose Fellow, Best Teacher Award, Prof. B.N. Johari Award).

**Over 75 years, the department takes pride in developing a strong base of Post-graduate & Doctoral Students.**







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## Professor M.L. Bhatia Memorial Lecture

## Speaker for 2022 Oration

Dr. Bhatia was an eminent scholar with a PhD (1937) and D.Sc. (1943) from Panjab University. He joined the University of Delhi in 1948 as the first Head of the newly established Department of Zoology.

He served as Professor and Dean of Faculty of Science, DU until 1960. The present New Block of the Department was designed by him.

He started University's most famous Flower showcases the University to the public.

He served as President of the Zoology and Entomology Section of the Indian Science Congress in 1956.

Prof. Bhatia was the fellow of Prestigious Zoologia Society of London & The Zoological Society of India.

The memorial lectures have been instituted by his illustrious son, Professor Balraj Bhatia in the memory of his eminent father.



Professor M.L. Bhatia  
(1896-1990)

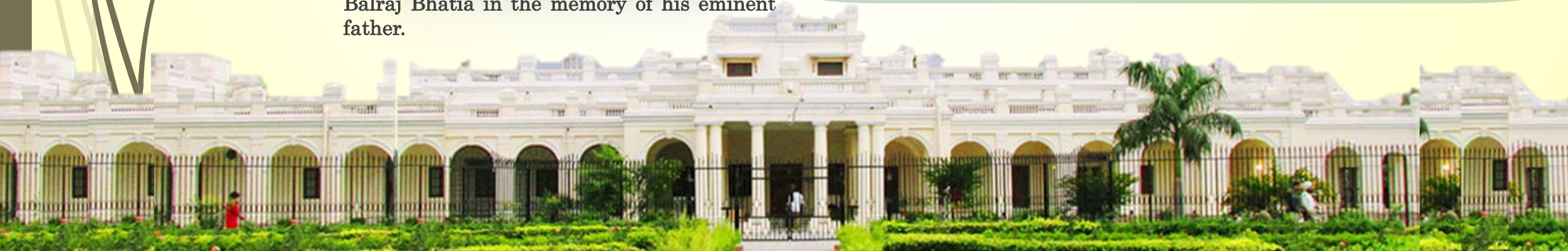


Dr. Anurag Agrawal  
Institute of Genomics and Integrative  
Biology, New Delhi, INDIA

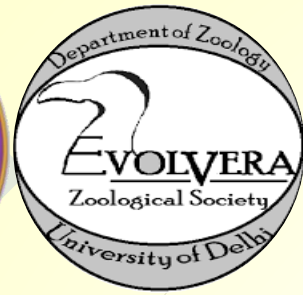
Dr. Agrawal is Director of CSIR-IGIB, New Delhi.

- He has interest in experimental and computational approaches for understanding biological and clinical aspects of respiratory diseases, especially asthma.
- His group has developed integrated solutions for healthcare delivery and digital data collection in resource-limited settings as well as computational tools for visualisation and analysis of complex medical datasets.

Topic: COVID pandemic: **The Inside Story**





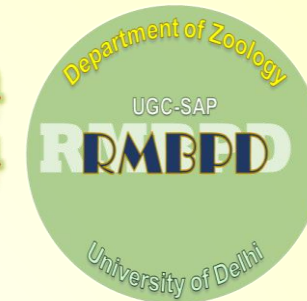


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## Dr. C. P. Alexander Memorial Lecture

### Speaker for 2022 Oration

With description of over 11,000 species of flies to his credit, Dr. Alexander was an outstanding taxonomist who dedicated his life to making better known a family of Diptera.

He named more than 10,000 species in a single family including more than 2000 species in India.

Dr. Alexander was outstanding student of natural history and an enthusiastic teacher. Teacher, Chairman and Dean at the University of Massachusetts, Amherst

President of the Entomological Society of America, Royal Entomological Society (UK)

To honor this illustrious scientist, the Department of Zoology, University of Delhi, organizes annually 'Dr. C. P. Alexander Memorial Lecture' through an endowment fund bequeathed by late Dr. Alexander to the University of Delhi.

Dr. Charles Paul  
Alexander  
(1889-1981)



**Ravindra Chandra Joshi**  
Senior Consultant, Philippine Rice  
Research Institute, Philippines

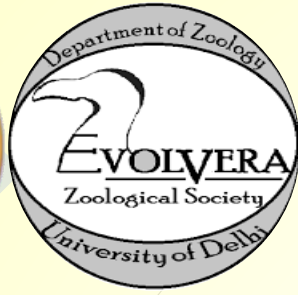
Dr. Joshi is Senior Consultant, PRRI, Philippines

- He first started working on invasive apple snails in 1987.
- His central research over twenty five years is on invasive alien species (IAS), important to agriculture sector, at the international, regional and national organizations, including the private and academic institutions, in Africa, Asia and Pacific Island countries

Topic: Challenges and New Strategies to Manage Invasive Rice Pests in the Changing Climate: **The Philippine Experience**

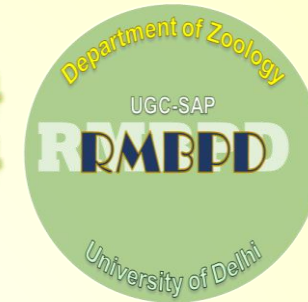






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## Conveners



Prof. Neeta Sehgal



Prof. Rajagopal Raman

## Secretaries



Prof. Anju Shrivastava



Prof. Alok C. Bharti

## Advisory Committee



Prof. Umesh Rai



Prof. M.M. Chaturvedi



Prof. Rina Chakrabarti



Prof. Vinod Kumar



Prof. Yogendra Singh

## Organizing Committee



Prof. Rakesh K. Seth



Prof. Dileep K. Singh



Prof. Shibnath Mazumder



Prof. Rita Singh



Prof. Ram K. Negi

## Programme Committee



Prof. Namita Agrawal



Prof. Rajagopal Raman



Prof. Mallikarjun Shakarad



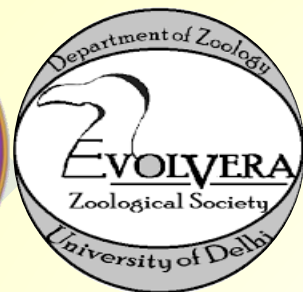
Prof. Sharmila B. Modak

## Evolvera Society

- Chetkar Chandra Keshavam, President
- Nidhi Krishna Shrivastava, Vice President

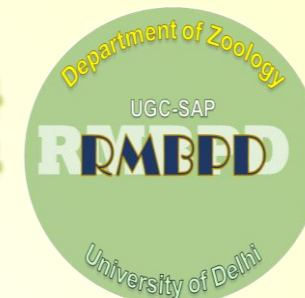






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## Important Dates

- Registration : February 10, 2022
- e-Poster submission : February 15, 2022
- Painting submission : February 20, 2022
- Abstract submission : February 15, 2022
- Essay submission : February 15, 2022

## Important Links

- For Registration  
<https://forms.gle/EFp1srbdFuVWTLrf6>
- For submission of e-Posters  
<https://forms.gle/H93xLLKG4HRBLio67>
- For submission of Paintings  
<https://forms.gle/bPnsjWJYpYLhWXMb9>
- For submission of Abstracts  
<https://forms.gle/zqNZmwqJ55uAEad9>
- For submission of Essay writing  
<https://forms.gle/XJfJ3TP8vv1BwhvG8>
- For Detailed guidelines of Abstract, poster, painting and essay you can visit our website  
<http://rmbpd.zoology.du.ac.in/>



## Venue:

Department of Zoology,  
University of Delhi, New Delhi,  
India

## Registration is open

Last date of registration  
**10.02.2021**

### Registration fees (Rs.)

Participants	Offline	Online
Student	2000/-	1000/-
Faculty	3000/-	2000/-

There are limited seats for offline registration. The offline registration will be governed by the prevailing pandemic restrictions

### Bank details for Registration fee:

A/C No. : 173401000004356  
Name : M/S International Colloquium  
RMBPD 2021  
Bank : Indian Overseas Bank  
Branch : University of Delhi  
IFSC Code : IOBA0001734

