



Karnatak University Dharwad

&



Society for Bacteriophage Therapy and Research, India

**3rd International Conference
on
Bacteriophage Research and Antimicrobial
Resistance
(ICBRAR – 2022)
26 & 27th November 2022**

**Organized by
Department of Applied Genetics
Karnatak University
Pavate Nagar, Dharwad - 580003
Karnataka, India**



Preamble:

According to WHO, antimicrobial resistance is one of the top 10 global public health threats facing humanity which warrants urgent multisectoral action in order to achieve the Sustainable Development Goals (SDGs). With the introduction of new antibiotics in the market and their irrational use is making the crisis uncontrollable. The highest rate of antibiotic resistance is seen in the ESKAPE pathogens (*E. faecium*, *S. aureus*, *K. pneumoniae*, *A. baumannii*, *P. aeruginosa*, and *Enterobacter sp.*) worldwide.

Over the years, there has been an evolution of antibiotic resistance observed in various pathogens, from penicillin to methicillin, and now even for vancomycin and other advanced antibiotics which are in use as well as in clinical trials. The widespread prevalence of multidrug resistance (MDR) as well as extreme drug resistance (XRD) patterns call for the exploration of alternative medicines and new approaches to combat bacterial infections. The Discovery of novel antibiotics is displaced and unable to cope with the rapidly emerging strains of drug-resistant bacterial pathogens.

The rapidly increasing susceptibility of antibiotics in controlling bacterial infections has paved the way for the development and use of alternative therapies to treat bacterial infections to reduce the burden on antibiotics. One of the better alternative therapy to combat bacterial infections is Phage therapy. The bacteria-eating viruses (Bacteriophages) coevolved as a nemesis to bacteria during the course of evolution and the process still can be witnessed in action. The phages evolved in a very specific way, by gaining the ability of selective and strain-specific action to combat bacteria, proving their usefulness in treating infections involving MDR as well as XDR bacterial infections

With this backdrop, the Department of Applied Genetics, Karnatak University in association with the Society for Bacteriophage Research and Therapy, India is organizing the 3rd International Conference on Bacteriophage Research and Antimicrobial Resistance – 2022 (ICBRAR-2022) to create a scientific platform for experts in the field *viz*, Scientists, researchers, industry representatives, academicians, Postdoctoral scholars, Ph.D. scholars, Postgraduate students, Undergraduate students and other stakeholder to meet, discuss, exchange the knowledge/ideas and to develop collaborations and cooperations.

About DHARWAD

Dharwad is a city located in the northwestern part of the Indian state of Karnataka. It is the headquarters of the Dharwad district of Karnataka and forms a contiguous urban area with the city of Hubballi. It was

merged with Hubballi in 1962 to form the twin cities of Hubballi-Dharwad. It covers an area of 213 km² (82 sq mi) and is located 430 km (270 mi) northwest of Bangalore, on NH-48, between Bangalore and Pune.

How to Reach DHARWAD

By Train: Dharwad railway station is a major station under the Hubballi railway division of the South Western Railway zone of Indian Railways. Dharwad railway station is connected to major railway stations such as Hubballi, Bangalore, Mumbai, Pune, Delhi, Visakhapatnam, Hyderabad, Ahmedabad, Mysore, and Tirupati. The nearest alternative railway station is Hubballi junction.

By Bus: Dharwad Bus Stand is located in the center city of Dharwad. It has bus facilities for many of the districts. The road journey takes about 6 hours from Bangalore (410 kilometers). The distance from Mumbai is a little over 580 kilometers; while from Pune is over 430 kilometers. There are many private buses from Bangalore to Dharwad and Mumbai to Hubballi. Bus services are available between interstates cities like Hyderabad, Pune, Mumbai, Goa, and Chennai.

By Air: Hubballi Airport (HBX) is the nearest airport that is serving the twin cities of Hubballi-Dharwad and North Karnataka in the state of Karnataka, India. It is situated on Gokul Road, 8 kilometers from the city center and 20 kilometers from Dharwad.

About the Organizers

About Karnatak University, Dharwad

The Bombay legislature of the erstwhile Bombay Presidency established Karnatak University through the Karnatak University Act 1949. It became a statutory University on 1st March 1950. It is the second oldest university in Karnataka. The jurisdiction of the University covers Dharwad, Gadag, Haveri, and Uttar Kannada districts. It has several Post Graduate centres. The University (888 acres) is offering courses in the faculties of Arts, Commerce, Education, Law, Management, Science and Technology, and Social Sciences. University has over 51 PG Departments, 154 teachers and 4500 students (PG, M.Phil., Ph.D.) and offers over 42 Doctoral programs. The University has its own High School (University Public School) since 1964 which meets the practice requirements of the B.Ed. College of Karnatak University. The University has 3 PG campuses at Haveri (42 acres), Gadag (32 acres) and Karwar (6 acres), all of which are district headquarters. All campuses are self-contained and are at various stages of development. The University has been attracting students from various countries belonging SAARC, ASEAN, Middle, East, and African regions.

The main campus in Pavate Nagar comprising 750 acres and houses 51 Departments, Central Library, Auditorium, various Museums with large collection in respective fields, well equipped sports facilities. The uniqueness of the university is, it runs constituent institutions which comprises primary school, middle school, high school, pre-university, undergraduate, postgraduate, doctoral, and postdoctoral levels. The university always thrives for excellence, social justice and gender equality. The University has been awarded with the coveted 'University with Potential for Excellence' (UPE) by the University Grants Commission with financial assistance for undertaking research activities and development of campus amenities.

About the Department of Applied Genetics, Karnatak University Dharwad

The PG department of Applied Genetics was started in 2003 and hosted at the premises of Department of Botany, KUD with the aim to create trained manpower in the fields of genetics. In 2005 the department become independent after shifting to old KIMS Building. The Department obtained funding from various funding agencies like UGC, VGST, K-DST, Department of Higher Education and Department of Medical Education, Govt of Karnataka for research and extension activities. As the result of departments' commitment towards societal approaches, Government of Karnataka has sanctioned grant to establish research center for DNA diagnosis in Department of Applied Genetics which later made an autonomous institute as Karnataka Institute of DNA Research under Department of Higher education, Govt. of Karnataka in 2012. Currently, there are two faculty members in the department doing research in the fields of Molecular Medicine, Microbial Genetics, *Drosophila* Genetics and Nanotechnology.

About the Society for Bacteriophage Research and Therapy

Society for Bacteriophage Research and Therapy (SBRT) was established to promote the studies of bacteriophages in various fields. Bacteriophage research is like any other discipline of science: It cannot exist absent a collective voice espousing its importance to the whole globe including India. This concern is now, finally, being championed by the Society for Bacteriophage Research and Therapy (SBRT). The society is intended to work together as a team for the betterment of bacteriophages and its positive global impact on the society. But, our concern can only be perfected when the scientists and clinicians working in different areas of basic and translation research in different aspects of bacteriophages are coming altogether on a single platform. Therefore, this society has been evolved to have a platform where researchers working in different areas of bacteriophages e.g. water bodies especially in rivers; clinical application of phages i.e. as antibacterial, vaccines, gene therapy, diagnostics, drug delivery, cancer therapy; water and sewage treatment, animal husbandry, poultry, food safety, aquaculture, agriculture, industry etc. may exchange and share the knowledge and facility altogether at national level.

THEMES

Bacteriophage Research and AMR or bacteriophage research or AMR in the field of:

- ✚ Health
- ✚ Veterinary
- ✚ Agriculture
- ✚ Environmental
- ✚ Industrial Microbiology
- ✚ Food
- ✚ Oceanography
- ✚ Biology of Bacteriophage
- ✚ Biology of AMR
- ✚ Microbial Nanotechnology
- ✚ Bioinformatics approaches and Artificial intelligence

Speakers: (Some more to come...)



Dr. Gopal Nath
Professor
Department of Microbiology, Institute of Medical Sciences
Banaras Hindu University, India



Dr. Maria Pilar Garcia Guerreiro
Professor
Department of Genetics and Microbiology
Autonomous University of Barcelona, Spain.



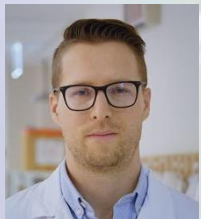
Dr. Vinod Kumar C.S
Director of Molecular Laboratory
Professor of Microbiology
S. S. Institute of Medical Sciences & Research Centre, Karnataka, India.



Dr. Sebastian Leptihn
Associate Professor
Zhejiang - Edinburgh Institute (ZJE), Haining, China.



Dr. Taruna Anand
Scientist
National Veterinary Type Cultures Collection,
National Research Centre on Equines, Hisar, Haryana, India.



Dr. Jeremy Barr
Head, Bacteriophage Biology Research Group
School of Biological Sciences
Monash University, Monash, Australia.



Dr. Ramesh N
Department of Bio-Medical Sciences
Vellore Institute of Technology, Vellore, India



Dr. Belinda Loh
Sub-group Leader
Zhejiang - Edinburgh Institute (ZJE), Haining, China.



Dr. Sangeeta Ahiwale
Mahatma Phule Mahavidyalaya
Pimpri, Pune, India.



Dr. Amita Gupta
Professor
Department of Biochemistry and Centre for Innovation in Infectious Disease
Research,
Education and Training (CIIDRET)
University of Delhi South Campus, New Delhi 110021, India



Patrons

Prof. K. B. Gudasi
Honorable Vice-Chancellor
Karnatak University Dharwad

Shri. Yashpal Kshirsagar
Registrar
Karnatak University Dharwad

Dr. VinodKumar C. S.
President
Society for Bacteriophage Research and Therapy

Organizing President

Dr. Vedamurthy A. B.
Co-Ordinator
Department of Applied Genetics
Karnatak University Dharwad

Organizing Secretary

Dr. Suresh B. Arakera
Assistant Professor
Department of Applied Genetics
Karnatak University Dharwad

Convener

Dr. Y. Ramesh Babu
Assistant Professor
Department of Applied Genetics
Karnatak University Dharwad

Dr. Ramesh N, Secretary, SBRT
Department of Bio-Medical Sciences
Vellore Institute of Technology, Vellore, India

Organizing Committee

Dr. Chandrappa M. Kamanavalli, Professor and Head, Department of Biochemistry, KUD
Dr. Jagannath L. Rathod, Professor and Head, Department of Marine Biology, KUPG Center, Karwar
Dr. Vootla Shyam Kumar, Professor, Department of Biotechnology & Microbiology, KUD
Dr. Murigendra B. Hiremath, Professor, Department of Biotechnology & Microbiology, KUD
Dr. Pulikeshi M. Biradar, Professor and Head, Department of Zoology, KUD
Dr. Devarajan Thangadurai, Associate Professor, Department of Botany, KUD
Dr. Shivasharana C. T., Associate Professor, Department of Biotechnology & Microbiology, KUD
Dr. Shivakumar B. Haragi, Assistant Professor, Department of Marine Biology, KUPG Center, Karwar
Dr. Sreenivasa Nayaka, Assistant Professor, Department of Botany, KUD
Dr. Sudisha Jogaiah, Assistant Professor, Department of Biotechnology & Microbiology, KUD
Dr. Chethan J. Dandin, Assistant Professor, Department of Biotechnology & Microbiology, KUD
Dr. Vishwanath B. Chachadi, Assistant Professor, Department of Biochemistry, KUD
Dr. Praveen Kumar S. K., Assistant Professor, Department of Biochemistry, KUD
Dr. Srinath B. S., Assistant Professor, Department of Zoology, KUD

National Advisory Committee

Dr. Sanjay Chibber
Professor Emeritus
Department of Microbiology,
Panjab University, Chandigarh, India

Dr. Subarna Roy
Director
ICMR-National Institute of Traditional Medicine
Nehru Nagar, Belagavi – 590010, India.

Dr. Ramalingappa C. Antaratani
Director
Karnataka Institute of Medical Sciences
PB Rd, Vidya Nagar, Hubballi, India.

Dr. Basavaraj V. Peerapur
Director
Raichur Institute of Medical Sciences
Hyderabad Road, Raichur, India.

Dr. Gopal Nath
Professor
Department of Microbiology,
Institute of Medical Sciences,
Banaras Hindu University, Varanasi, India.

Dr. Mahantesh B. Nagmoti
Professor
Jawahar Nehru Medical College
KLE Academy of Higher Education and Research
Nehru Nagar, Belagavi – 590010, India.

Dr. Raghavendra D. Kulkarni
Professor & Head
Department of Microbiology
SDM College of Medical Sciences, Sattur,
Dharwad, Karnataka, India.

Dr. Amita Gupta
Professor
Department of Biochemistry and Centre for
Innovation in Infectious Disease Research,
Education and Training (CIIDRET)
University of Delhi South Campus, India.

Dr. Asha B. Patil
Professor
Department of Microbiology
Karnataka Institute of Medical Sciences
Hubballi, Karnataka, India.

Dr. Badireddy Madhusudana Rao
Principal Scientist
ICAR-Central Institute of Fisheries Technology
Visakhapatnam Research Centre, India

Dr. Amita Gupta
Professor
Department of Biochemistry and Centre for
Innovation in Infectious Disease Research,
Education and Training (CIIDRET)
University of Delhi, New Delhi, India

Dr. Chandrakant Kelamani
Professor
Department of Biotechnology
Gulbarga University
Kalaburagi, India.

Dr. Kishor Bhat
Director
Central Research Laboratory
Maratha Mandal's Nathajirao G. Halgekar
Institute Of Dental Sciences & Research Centre
Belagavi, Karnataka, India.

Dr. Sangeeta Ahiwale
Associate Professor & Head
Department Microbiology,
Mahatma Phule Mahavidyalaya
Pimpri, Pune-17, Maharashtra, India

International Advisory Committee

Prof. Elizabeth Kutter
Professor
The Evergreen State College,
Olympia, Washington, WA 98505, USA

Dr. Mark A Toleman
Senior Lecturer,
Department of Infection and Immunity,
The Medical School Heath Hospital, Heath Park,
Cardiff, CF144XN. UK

Dr. Bulent Bozdogan
Professor, Medical Microbiology Department
Medical Faculty Adnan Menderes University,
Aydin, Turkey

Dr. Ashok J, Tamhankar
Researcher,
Health systems and policy focusing antibiotics,
Department of Global Public health,
Karolinska Institute, 171 77,
Tomtebodavagen 18, Stockholm, Sweden

Dr. Sebastian Leptihn
Associate Professor
Zhejiang University-Edinburgh University Institute,
Zhejiang University International Campus,
Haining, 314400, China

Dr. Jeremy J. Barr
Senior Lecturer, Monash University,
School of Biological Sciences, VIC 300, Australia



REGISTRATION DETAILS

Registration and Participation details: All the delegates must register to participate in the 3rd International Conference in the prescribed form available at the University website <https://www.kud.ac.in/index.php>. No abstract will be accepted without registration. For conference participation or any query regarding the conference, please contact the organizing secretary Dr. Suresh B. Arakera (icbrar2022@gmail.com).

Registration Fees

Category	Early Bird (10 Nov, 2022 Off-line)	Early Bird (10 Nov, 2022 Online)	Late (After 10 Nov, 2022 Offline)	Late (After 10 Nov, 2022 Online)
Students (UG, PG)	INR1200	INR1500	INR1500	INR2000
Ph.D, RA, Post Doc	INR1500	INR2000	INR2000	INR2500
Faculty Indian	INR2000	INR2500	INR3000	INR3500
Foreign Delegates	USD100	USD125	USD 200	USD 230
Industry personnel	INR5000	-	INR7000	-

Accommodation: Accommodation is not included in Registration fees. The participants have to make their own arrangements in nearby hotels or in university guest house (limited rooms, available on first come, first serve basis. For booking, contact organizing secretary). Hence, all the delegates are requested to ensure their accommodation through pre-booking.

PRESENTING OPPORTUNITIES

Guidelines for Abstract Submission: Participation in the 3rd International Conference is open to all scientists, faculty members, research scholars, and students who are working in the field of microbiology and life sciences. Abstract for Oral/Poster presentation should be maximum of 250 words excluding the title, authors, and address. Abstracts should be prepared in MS-word, Time New Roman, 12 Font, and Single spacing leaving 1" margin on the left and right side of the page. The **technical session** to which the abstract belongs must be clearly indicated at the top left of the abstract page and also in the registration form. The email id and contact number of the corresponding author must be clearly given in the abstract. The abstract should be submitted **on or before 10th Nov 2022** in electronic form only as an email attachment to **icbrar2022@gmail.com@gmail.com**. Abstracts will be printed only after receiving the registration fee. The acceptance will be communicated to the corresponding author via email.

Poster Presentations

Guidelines for Poster Presentation: The poster should be prepared in advance and should be brought in person by the candidate. The size of the poster should be 0.75 m (Width) × 1.0 m (Length). The poster should be legible from a distance of 1-2 m.

E-POSTER as well as the offline presentation can be presented on various themes of the conference. The details are as follows:

Poster size and orientation

All posters are to be set in portrait style orientation and all information (i.e., Text, data, photos, and figures) must be designed to appear within one window/slide (Width 20 in, Height 35 in). If the poster is designed in MS PowerPoint, all information must appear in ONE (1) slide only. Use Page Setup and choose Slide Size: "Custom (Width 20 in, Height 35 in) "with a Portrait (Vertical) orientation. Font size minimum 24 to be used. Save Poster PPT in PDF format (PDF Size limit 10MB) for submission.

Content of the Posters

- i. ORIGINAL Research Work (a declaration from the authors will be required)
- ii. Posters should include the title, name, and affiliation of all the authors.
- iii. Content should be appropriately sectioned. The title and subheadings should be written in bold. Multiple fonts should be avoided. Poster Font size: 20.
- iv. At the footer/bottom part of the poster, it should be mentioned: **Presented at 3rd International Conference on Bacteriophage Research and Antimicrobial Resistance**

Oral presentation:

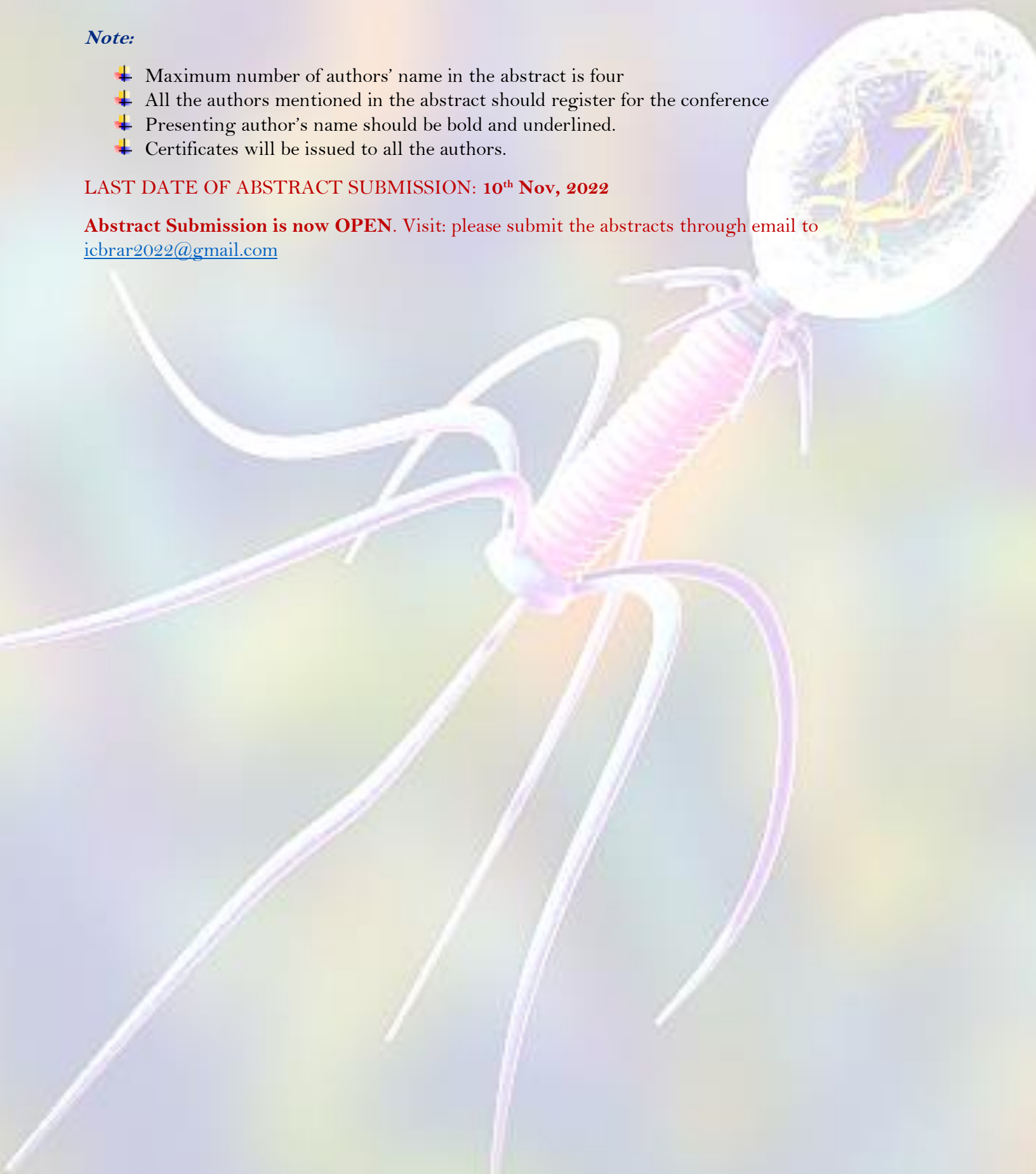
1. Unpublished work should be presented
2. Time limit for the presentation is 5 minutes plus 2 minutes for discussion
3. Maximum number of slides should be 8 number (Title slide, Introduction, Aims and objectives, Methodology, Results-2 slides, Conclusion/implication, Reference)
4. Not following the above guidelines will not be considered for awards

Note:

- ✚ Maximum number of authors' name in the abstract is four
- ✚ All the authors mentioned in the abstract should register for the conference
- ✚ Presenting author's name should be bold and underlined.
- ✚ Certificates will be issued to all the authors.

LAST DATE OF ABSTRACT SUBMISSION: 10th Nov, 2022

Abstract Submission is now OPEN. Visit: please submit the abstracts through email to icbrar2022@gmail.com



AWARDS

1. **Lifetime achievement award:** Indian scientists who are a life member of SBRT and possess a doctoral degree and are above forty-five years of age, and are engaged in research in the bacteriophage area for at least fifteen years (After a doctoral degree) continuously are eligible for consideration
2. **Outstanding scientist award:** Indian scientists who are a life member of SBRT and possess a doctoral degree and are above forty years of age, and are engaged in research in the bacteriophage area for at least ten years (After a doctoral degree) continuously are eligible for consideration
3. **Young Scientist:** Indian scientists who are life members of SBRT and possess a doctoral degree and are below forty years of age, and are engaged in research in the bacteriophage area for at least five years (After a doctoral degree) continuously are eligible for consideration
4. **Best scientist of the Year 2022:** All scientists who possess a doctoral degree and published research articles in high-impact journals between April 2021 to March 2022 are eligible for consideration
5. **Best oral presentation award under all the themes:** Researchers who present their research work during the conference are eligible for consideration. Awards will be given If more than 5 abstracts are submitted under each theme
6. **Best Poster presentation award under all the themes:** Researchers who present their research work during the conference are eligible for consideration. Awards will be given If more than 5 abstracts are submitted under each theme

The application form is given in the Annexure-1

CRUCIAL DATES AND CONTACT DETAILS

Abstract: E-mail your abstract to icbrar2022@gmail.com on or before **10th Nov, 2022**

No abstract will be accepted after last date

Registration: Open for all Scientists, Academicians, Students, Scholars, Delegates and Industry personals.

Late Registration: Late registration ends on **19th Nov, 2022**

Visit us at: <https://www.kud.ac.in/index.php>

Email us on: icbrar2022@gmail.com

Contact us:

Dr. S. B. Arakera: 9986978177

Email: drsbarakera@gmail.com

**Early Bird Registration
and Abstract Submission
Closes On... 10th Nov,
2022**

Annexure-1

Application/ Nomination Form for Lifetime achievement award / Outstanding scientist award /Young Scientist Award / Best scientist of the year

1. Name of the Award:
2. Name and designation of the scientist in full (underline surname)
3. Father's / Husband's Name
4. Date and place of birth
4. Marital status
5. Postal address
6. Mobile No./email
7. Educational qualifications beginning with the first degree or Equivalent (in a tabular form and the year of obtaining the degree)
8. Employment record (in tabular form)
9. Any other relevant experience/training
10. Details of the Research contributions
11. When, where and how the research work was conceptualized When, where, and how the research work was conducted?
12. In what capacity the applicant participated in various projects/stages of the research work as Associate Prof./Assistant Prof./ Student
13. Publications arising from the research work in a bibliographical format
14. Whether any patents have been taken out/applied for?

Signature of the candidate.

Note: Paste passport-size photo

