

Volume 11 | Issue 124 | November 2023
ISSN: 2454-6968 | RNI No. UPENG/2013/54102

e-copy - Rs. 50 | Print - Rs. 800

BIOTECH EXPRESS

BRSI Special Issue

**Interview with
Prof Ashok
Pandey
India's most
cited researcher
and no.1
scientist in
biotechnology
in India**

**Journey of 20
years of the
Biotech
Research
society, India
(BRSI)**



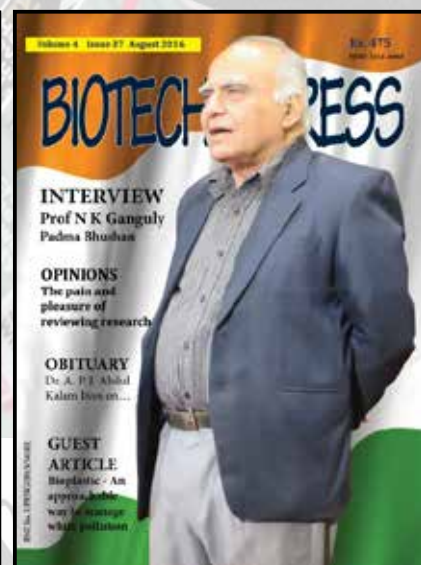
About Biotech Express

Biotech Express the world's only Biotechnology print and digital magazine (other than journal) is periodical that publishes every month since August 2013. It was started by Kamal Pratap Singh, who left PhD (though he had CSIR JRF) because of the prevailing situation of job security. Biotech Express then got attention of many stalwarts of the field like Prof Kambadur Muralidhar who is regarded as pioneer of science communication and science ethics in India, Prof Ashok Pandey, Prof Pallu Reddanna to name a few.

Biotech Express tries to publish facts and figures of the field that are not available anywhere through various headings like Editorials, Guest Articles, Reports, Views and Interviews, Correspondence, Comments, Current News, Research Highlights and Conferences, Events, Jobs, Research Proposals, startup story, retractions in the field of Biotechnology and allied sciences like Plant Biotechnology, Microbiology, Biochemistry, Neurology, Genetics, Medical Sciences etc.

Biotech Express is now managed by team of dedicated research and management professionals of Life Sciences who believe in the promotion of science to general public. All in all Biotech Express is the only magazine that you would find on your desk or in library that can provide you upto date knowledge and skill enhancement techniques which can boost your career. If you are a leader then you can help your peers by recommending this magazine to library and if you are still a student you can always contact us for any kind of support.

We know that magazine is little costly but when it comes worth you will find that the quality of book and content you get is much more valuable than its cost. For those who cannot afford, it is free for them so contact us for more info at www.biotechexpressmag.com and biotechexpressindia@gmail.com



REGULARIZATION OF RESEARCH FELLOWSHIP | INMAS-DRDO International Radiation Biology | Collaborative Research Partnerships (CRP) in Diabetes Research



Subscription Biotech Express

The Monthly magazine of Biotechnology



Subscription packages

RNI No. UPENG/2013/54102

ISSN: 2454-6968

Period	Print				Digital			
	Indian Subcontinent		Other countries		Indian Subcontinent		Other countries	
	Institutional	Individual	Institutional	Individual	Institutional	Individual	Institutional	Individual
Single	₹1000	₹1000	USD 150	USD 50	600	₹ 100	USD 50	USD 15
1 Year	₹10,000	₹ 5,000	USD 1000	USD 500	5000	₹ 600	USD 500	USD 100
2 Year	₹19,000	₹ 9,000	USD 1900	USD 900	9000	₹ 1000	USD 900	USD 180
3 Year	₹28,000	₹ 14,000	USD 2800	USD 1400	13000	₹ 1500	USD 1300	USD 250
5 Year	₹45,000	₹ 14,000	USD 2800	USD 1400	20,000	₹ 2200	USD 2000	USD 400

Note: Print subscription includes digital subscription as gratis (no extra cost) for the subscribed period.

Terms and Conditions:

1. Please fill the form in CAPITAL letters.
2. Print Subscription is valid in India only.
3. Print Subscription cost includes first class courier charges.
4. Print subscription includes digital subscription as gratis (no extra cost) for the subscribed period.
4. The mode of payment should be cheque/DD/NEFT favouring "Biotech Express". Please write your name and contact details on the back side of cheque/DD.
5. Your subscription will commence from the next available Issue OR within four weeks.
6. For Multiple Subscriptions/error use separate forms (Photocopies allowed).
7. Biotech Express will not entertain cancellation of subscription after commencement of the same. No request for refund will be entertained.
8. In case of changing address, kindly send us in writing one month in advance.
9. Non delivery should be reported within 20 days of publishing of monthly issue to consider repost by us. After which no request will be entertained under any circumstances.
10. Annual Subscription can be avail throughout the year.
11. Previous Volumes are available on request.

Annual Sponsorship

Title	25 Lakh	40,000 US \$
Platinum	18 Lakh	27,000 US \$
Gold	15 Lakh	23,000 US \$
Silver	8 Lakh	12,500 US \$

Mode of communication: Cover Article, Other Pages Ads, Back Articles, Email Newsletter, Website Linking, Events etc.

Online/NEFT Payment

Account Name: BIOTECH EXPRESS
Account No: 65183799804
Bank Name: SBI, Dilshad Garden,
Bank Address: 7, Local Shopping Centre,
B-block, Dilshad Garden, Delhi, India.
Pin – 110095.
Branch code : 009370
IFSC: SBIN009370,
MICR code: 110002183
Digital Payment: 9311986177@ybl

Note: BEM Sponsorship will be valid for a period of one year from booking of the same.

Contact: biotechexpressindia@gmail.com, Phone: +91-9311986177



BIOTECH EXPRESS

Chief Editor

Dr. Seema P. Upadhye

Managing Editor:

Kamal Pratap Singh

VOLUME 11, ISSUE 124
November 2023

ALL RIGHT RESERVED. No part of this issue can be printed in whole or in part without the written permission of the publisher. Editors, printer and publisher do not take responsibility for any mistake though information are best to assess.

Online and Social Media

www.biotechexpressmag.com

www.facebook.com/BiotechExpressmagazine

www.linkedin.com/in/biotechexpressmagazine

<https://twitter.com/KBiotechexpress>

Subscription: <http://www.biotech-expressmag.com/subscription/>

Contact: Biotech Express, V-31/4, Ext-1, Shalimar Garden, Sahibabad, Ghaziabad, U.P- 201005.

Phone: +91- 9311986177

Article and Ad submission

All queries related to article and ads submission can be sent to bio-techexpressindia@gmail.com. For more information kindly visit website: www.biotechexpressmag.com

Publisher : Kamal Pratap Singh

Printed at : Monex offset, B-12 SD complex, near MMG hospital, Ghaziabad- 201005.

The Biotech Express magazine publishes between 10th to 15th of every month. Please report non-delivery of print issue within 15 days of publishing the issue after which no query will be entertain.



CONTENT

Interview: Prof Ashok Pandey India's most cited researcher and no.1 scientist in biotechnology in India

Editorial: Journey of 20 years of the Biotech Research society, India (BRSI)

Short Interview: BRSI can bring forth research based solutions - Padma Shri Prof S K Sopory

Short Interview: I am proud of my association with BRSI from last 20 years - Prof T P Singh

Short Interview: BRSI certainly help peers to achieve their academic goals - Dr. Datta Madamwar

Short Interview: Compared to other societies in India, BRSI is more closely associated with PG and research students - Prof P Gunasekran





From the desk of Chief Editor

It is my immense pleasure to publish this BRSI Special issue because BRSI has now reached a milestone journey of 20 years. Biotech Express became official media partner of BRSI in year 2014 and so we have also completed 9 years of affiliation with this India's largest non government biotech society and both working for the same cause i.e promotion of Indian biotech and helping young generation in achieving their career goals.

In this issue you will find interview of Prof Ashok Pandey who has become highest cited researcher in biotechnology in India according to various rankings. In this article he is going to discuss about various issues related to biotech research and administration and we will closely look at his achievements during his career journey.

In the second article we will discuss about BRSI, its aims, objectives and a pictorial journey of its past 19 events that took place all around the India. And then we will have testimony from Prestigious scientists of India like Padma Shri Prof S K Sopory, SERB Distinguished researcher Prof T P Singh from AIIMS, Vice Chancellor of VIT Prof Gunasekran and Prof Datta Madamwar who is Scientific Advisor at CHARUSAT. All these highly decorated personalities are closely associated with BRSI and had serve BRSI as President and are now member of Governing Body.

As our readers know that we always do best to come up with unique articles and contents and thus in this issue too we have compiled information from various sources and interviews that can benefit young generation as well as senior researchers to understand current scenario of biotechnology advancements and future options to them.

I wish readers and BRSI a happy journey in coming years!

Dr Seema Pavgi Upadhye
Chief Editor, Biotech Express
Awarded- Indian Women in Dubai - 2023

Advisory & Editorial Board



Chief Editor:
Dr Seema Pavgi Upadhye
PhD, Biochemistry



Managing Editor:
Kamal Pratap Singh
M.Sc Genetics



Assistant Editor:
Dr Piyush Kumar, PhD

From the very first issue, Biotech Express team has been delivering what's best for Biosciences community. The audience of this magazine includes students, researchers, faculties and executives of highly prestigious organizations of India. In year 2016, BEM has made new editorial Board combining experience of eminent Advisory Board Members who have been into Award winning Research and head of prestigious Administrative positions.

Advisory Board Members

Prof Sopory Sudhir Kumar, Ph.D., FNA., FNASc., FNAAS., FASc., FTWAS
Padma Shri, Shanti Swarup Bhatnagar Awardee, SERB Distinguished Fellow,
DST, ICGEB 2018----, Vice –Chancellor, JNU, Delhi, 2011-16
Director, ICGEB 2014-15



Prof Pandey Ashok, D.Phil., FRSB., FTWAS, FNASc, FNA., FBRs., FIOBB.,
FISEES., FAMI, FICS, FWSSET
Distinguished Scientist, CSIR-Indian Institute of Toxicology Research, Lucknow
Former Dy Director & Chief Scientist, CSIR- National Institute for Interdisciplinary
Science and Technology; Founder, Biotech Research Society of India (BRSI)



Prof Mishra Kaushala Prasad, Ph.D., F.M.A.Sc., FNASc.
Former Head, Radiation Biology Dept., BARC, India; Former Vice-Chancellor,
Nehru Gram Bharati University; Founder, Radiation Biology Society,
Founder President, Society for Radiation Research , India(SRRI),
President, Asian Association for Radiation Research (AARR)2017-2021



Prof Ramareddy V Guntaka, Ph.D
Chairman and Chief Scientist, Sudarshan Biotech Pvt Ltd., India &
Emeritus Professor, University of Tennessee Health Science Center, USA



Prof. Pallu Reddanna, Ph.D
BSR Faculty Fellow, School of Life Sciences, University of Hyderabad, India
Executive President, Federation of Asian Biotech Associations (FABA)



Consulting Editors



Dr. S Venkata Mohan
FNAE, FBRs, FT(AP)AS,
FIEI, FABAP, FISEES
Principal Scientist
Bioengineering and
Environmental Sciences
(BEES), (CSIR-IICT)
Hyderabad, India.



Dr. Dubey K K
Associate Professor &
HOD, School of
Biotechnology
Jawaharlal Nehru
University, New Delhi
(India)



Dr. Sunita Varjani
Scientific Officer
Gujarat Pollution
Control Board
Paryavaran Bhavan,
Gandhinagar, Gujarat,
India.



Dr. Rachna Agarwal
Associate Professor,
Neurochemistry
Institute of Human
Behaviour and Allied
Sciences (IHBAS),
Delhi, India.



Dr. Shailendra K.
Saxena
Professor and Head,
Centre for Advance
Research, King George's
Medical University
(KGMU), Lucknow,
India

Editorial Board Members

Dr. T.N.G. Sharma, Manager,
Federation of Asian Biotech Associations
(FABA)

Dr. Barun Kanta Bhattacharyya
Manager, Research & Development
East India Pharmaceutical Works Ltd

Dr. Dinesh K Gautam
Assistant Professor, Department of
Zoology, Hansraj College, Delhi University.

Dr. Rajni Gupta
Associate Professor, Botany, Kirori Mal
college, Delhi University.

Dr. Darshan Malik
Associate Professor, Biochemistry,
Shivaji College, Delhi University.

Dr. Anand Sonkar
Assistant Professor, Department of Bot-
any, Hansraj College, Delhi University

Dr. Sharvan Sehrawat
Asst Professor, IISER Mohali,
Punjab, India.

Dr. Tathagata Choudhuri
Professor, Dept of Biotechnology,
Visva Bharati University,
Santiniketan, West Bengal.

Dr. Shailesh K Tiwari
Scientist at IIVR, Varanasi.

Dr. Sumit Gandhi
Senior Scientist at CSIR-Indian Institute
of Integrative Medicine (CSIR-IIIM),
Jammu.

Dr. Yogesh Joshi
Assistant Professor at Department of
Bioinformatics Solapur, Maharashtra.

Dr. Deepak Kala
Assistant Professor, Chandigarh Univer-
sity

Dr. Kavita Mehta
Assistant Prof. biotech at Ganpat
University, Ahmedabad, Gujarat, India.

Dr. Seema Amin
Assistant Professor at Charotar
University of Science & Technology
(CHARUSAT), Ahmedabad, India.

Dr. Mukund Bodhankar
Teaching and research at Bharati
Vidyapeeth University, Pune.

Dr. Selvarajan Ethiraj
Research Assistant Professor at SRM
University (Sri Ramaswamy Memorial
University), Kanchipuram, Tamil Nadu,

Dr. Burusa Prasad Rao
Senior Scientist at CLRI, Chennai Area,
India.

Dr. Paramjit S Panesar
SLIET University, Longowala, Punjab.

Dr. Sukanta Majumdar
Gour Banga University.

Dr. Rupesh Chaturvedi
Professor at Jawaharlal Nehru University
New Delhi, Delhi, India.

Dr. Himani Jain
Teaching Associate at Deenbandhu
Chhotu Ram University of science &
technology, Murthal, Haryana.

Dr. Baskar Gurunathan
St. Joseph's College of Engineering,
Chennai.

Pratyush Kumar Das
Ph.D Scholar, Centre for Biotechnology,
Siksha 'O' Anusandhan Odisha, India.

Interview

by Kamal Pratap Singh

Interview with Prof Ashok Pandey India's most cited researcher and no.1 scientist in biotechnology in India

Professor Ashok Pandey, DPhil, FBRs, FTWAS, FNASc, FNA, FRsB, FISEES, FIOBB, FAMI, FICS, FWSSET

Google scholar: <http://scholar.google.co.in/citations?user=VlnbGhIAAAJ>

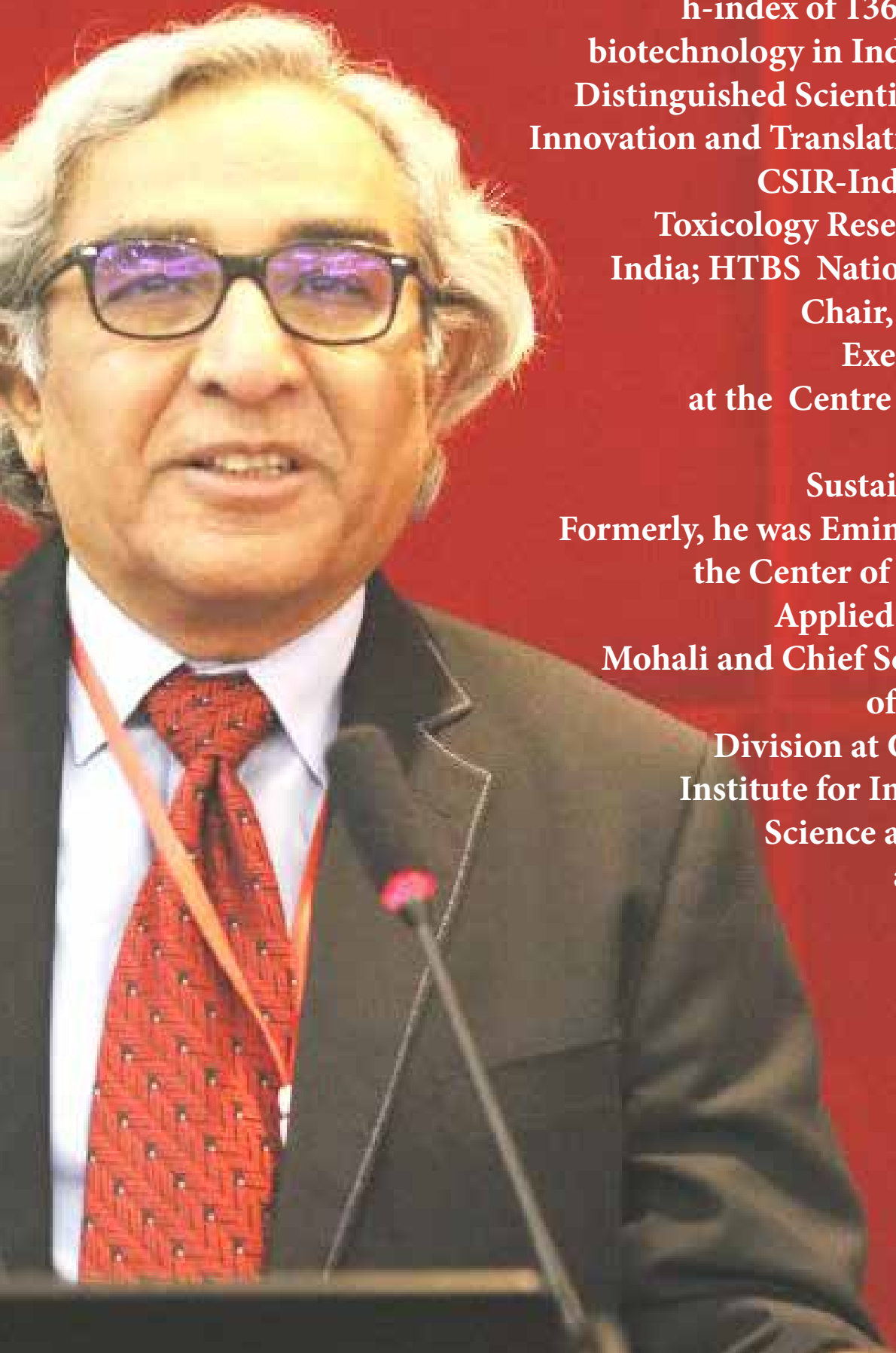
Homepage (personal) : <http://ashokpandey.in>; <http://ashokpandey.org>

Homepage (official): <http://iitrindia.org/En/StaffDetail.aspx?id=297>

Researchgate: https://www.researchgate.net/profile/Ashok_Pandey5

ORCID: <http://orcid.org/0000-0003-1626-3529>

Twitter: <https://twitter.com/AshokPa20609562>



Professor Ashok Pandey, who has an h-index of 136- the highest in biotechnology in India- is currently Distinguished Scientist at Centre for Innovation and Translational Research, CSIR-Indian Institute of Toxicology Research, Lucknow, India; HTBS National Innovation Chair, and Honorary Executive Director at the Centre for Energy and Environmental Sustainability- India. Formerly, he was Eminent Scientist at the Center of Innovative and Applied Bioprocessing, Mohali and Chief Scientist & Head of Biotechnology Division at CSIR's National Institute for Interdisciplinary Science and Technology at Trivandrum.

Sir please share with us your life journey that is not shared anywhere by you.

Hahahahaaa...that very interesting question, Kamal. My journey in science is too well known to the people all around the world and so the personal life as revealed in several podcast and other interviews available on YouTube. From the days of my PhD, I was always keen to learn more and more to sharpen my research and analytical skills. I always feel that my decision to switch to microbiology as the subject for my PhD was a very good decision and given the fact that I had my Master's degree in Chemistry, with specialization in Organic Chemistry gave me an edge to understand the life phenomenon as micro level (as after all entire metabolic and other activities in any living cell are chemical reactions, triggered and controlled by the enzymes- the catalysts). So, I adopted this interdisciplinary approach (without referring it so) right in 1976, which the world started to talk to

adopt a decade later or so.

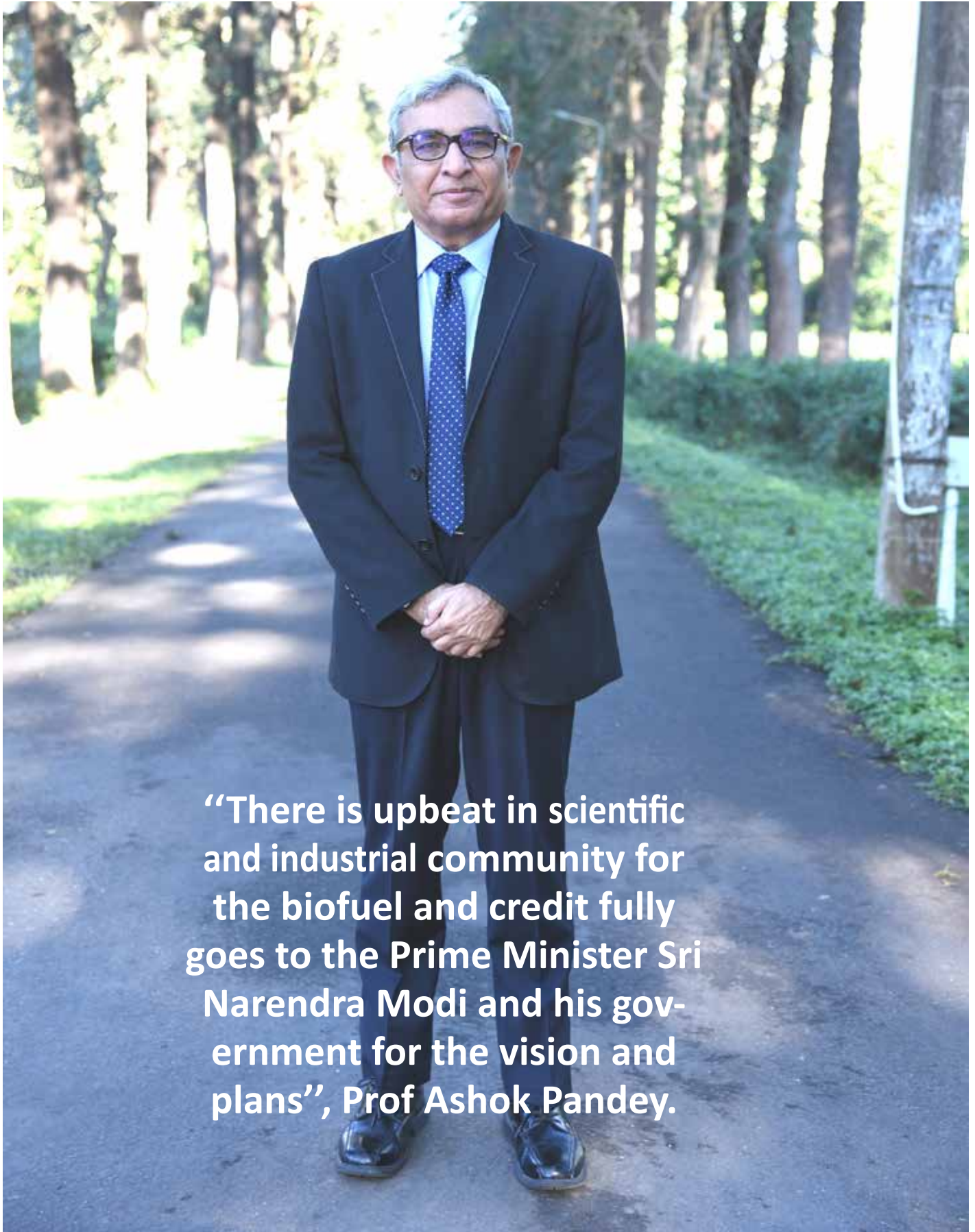
Sir you are on top ranking in Biotech in India, what it takes to be no1.

Kamal, I never worked with an aim to be ranked no. 1! My endeavor has been to adopt research as passion and most importantly never made time (means days and hours) as the limiting factors for the work. Microbiological (or biological) research can be done with Monday to Friday approach or 0900-1730h approach. I realized it in the beginning of my career and adopted to work as was required by the research experiments, not limiting the experiments to the working days or working hours. Sooner than later, in early 1990s, I also realized that team building and networking seem extremely critical for far-reaching successes in the research, which brings better outputs – quantifiable outputs, leading eventually to 'outcomes' for industri-

Keywords based SCOPUS (www.scopus.com) search on global ranking of

Ashok Pandey (8th November 2023)

No	Keyword	Total no of publications	AP's no of publication	World Ranking	India Ranking
1	Solid-state fermentation	9,820	157	#1	#1
2	Industrial fermentation	24,087	106	#1	#1
3	Bioconversion of biomass	9,387	36	#1	#1
4	Lignocellulosic bioethanol	3,884	39	#1	#1
5	Industrial Enzymes	41,211	103	#2	#1
6	Production of enzymes	362,992	240	#1	#1
7	Production of enzymes -- industrial	59,880	211	#1	#1
8	Hydrolysis of biomass	19,341	83	#4	#1
9	Pretreatment of lignocellulosic biomass	5,896	36	#7	#1
10	Pretreatment of biomass	15,002	67	#11	#1
11	Production of organic acids	51,617	64	#25	#1
12	Production of lactic acid	36,473	37	#30	#1
13	Production of biochar	8,493	22	#36	#1



“There is upbeat in scientific and industrial community for the biofuel and credit fully goes to the Prime Minister Sri Narendra Modi and his government for the vision and plans”, Prof Ashok Pandey.

Interview

al or societal applications. These approaches led the development of a large number of collaborative projects involving many premier institutes and universities in India as well as many countries. Thus, over the period of time, my institution, i.e., CSIR-National Institute for Interdisciplinary Science and Technology at Trivandrum (which was called as Regional Research Laboratory till 2005) became known and earned fame for the quality of publications contributed by us, in particular in the areas of industrial enzymes. Taking the advantages of knowledge and expertise we developed, we undertook several industrial sponsored or consultancy projects from Indian and overseas industries and also transferred four technologies on industrial enzymes to the industries.

Moving with time, there has been changing scenario where world started to move from chemical-based processes to bio-based processes, which we realized well and adopted our R&D to move in that direction, considering the Sustainable Development Goals, announced by UN in the back of mind to link together.

Thus, cross-field research, multi-national partner-



ship and working on the emerging issues faced by the world, in particular for energy and environmental sustainability placed us uniquely in the world, in terms of high quality of publication and impactful research. This all led to place me as world no 1 in various areas by different ranking agencies, including Clarivate Analytics (Web of Science, USA), Stanford University, USA, Research.Com, Elsevier Citation Report, etc.

BOX: About Professor Ashok Pandey

Prof Pandey has contributed significantly in the cross fields of Industrial and Environmental Biotechnology and Energy Biosciences. He has published > 120 books and > 1000 papers and book chapters with h index of 136 and ~79,000 citations (Goggle scholar). He is highest cited Indian scientist in Biotechnology.

He has transferred several technologies to industries and has completed large number of industrial consultancy/sponsored projects from Indian/International industries.

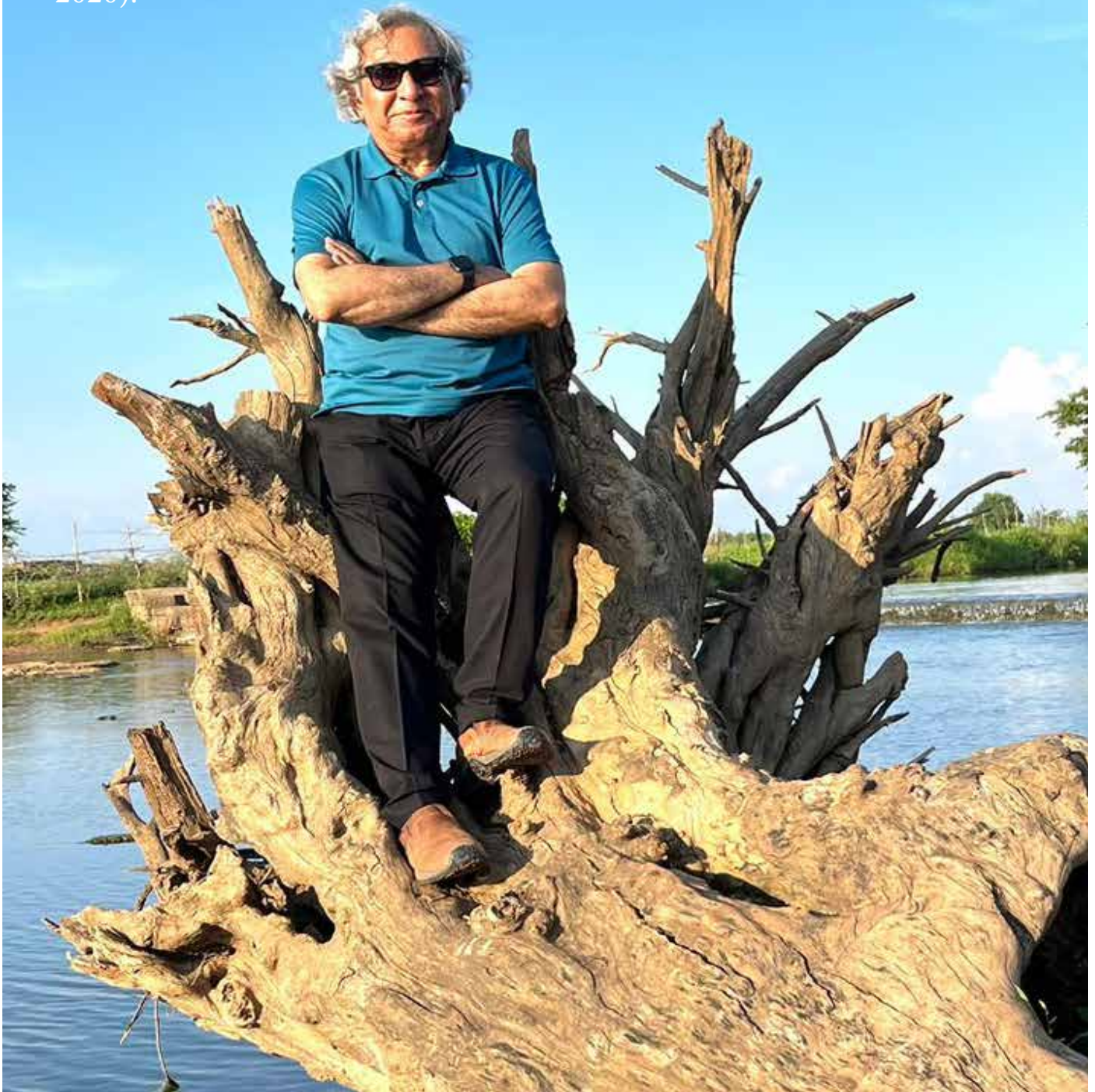
Professor Pandey is/has been Adjunct/Visiting Professor/Scientist in universities in France, Germany, Brazil, Argentina, Mexico, Canada, China, South Korea, South Africa, Malaysia, Thailand, Switzerland, USA, UK, etc and also in several universities several in India.

Prof Pandey is Fellow of various academies, which include Indian National Science Academy (2024), The World Academy of Sciences (2023), World Society for Sustainable Energy Technologies, UK (2022), Indian Chemical Society (2021), Royal Society of Biology, UK (2016); International Society for Energy, Environment and Sustainability (2016); National Academy of Sciences, India (2012); Association of Microbiologists of India (2008), International Organization of Biotechnology and Bioengineering (2007) and the Biotech Research Society, India (2005).

He is the recipient of many national and international awards and honours, India Research Excellence Citation Award-2023: Interdisciplinary Science and Engineering, Clarivate Analytics, Web of Science (2023) and India Research Excellence Award-2023, Careers360. He Is Distinguished Professor of Eminence with global impact in the area of Biotechnology, Nigeria, Highest Cited Researcher (Top 1% in the world), Clarivate Analytics, Web of Science (2018-2022); IconSWM Life-time Achievement Award, International Society for Solid Waste Management, (2019); Yonsei Outstanding Scholar, Yonsei University, Seoul, Korea (2019). He has been conferred Life-Time Achievement Award by the Biotech Research Society, India (2018); Venus International Research Awards (2018) and International Society for Energy, Environment and Sustainability (2017). He is Academician of European Academy of Sciences and Arts, Austria (2015) and received Honorary Doctorate degree from Univesite Blaise Pascal, France (2007); Thomson Scientific India Citation Laureate Award, USA (2006); UNESCO Professor (2000); Raman Research Fellowship Award, CSIR (1995); GBF, Germany and CNRS, France Fellowships (1992) and Young Scientist Award (1989), etc.

Professor Pandey is Founder President of the Biotech Research Society, India (www.brsi.in); Founder and Chief Executive of International Bioprocessing Association -An International Forum on Industrial Bioprocesses, France (www.ifbiop.org). He was Chairman of the International Society for Energy, Environment & Sustainability (www.isees.in) from 2016-2022. He is co-Editor-in-chief of Systems Microbiology and Biomanufacturing (Springer Nature); Honorary Executive Advisor of Journal of Energy and Environmental Sustainability; Subject Editor, Proceedings of National Academy of Sciences, India; Associate Editor of Biologia – Section Cellular and Molecular Biology and Biotechnology Research and Innovation and editorial board member of several international and Indian journals. He was editor/editor-in-chief of Bioresource Technology from 2003-2023.

Pandey has been Highly Cited Researcher (top 1%) according to Clarivate Analytics, Web of Science since 2018 (h-index 136; citations ~78793) and has been ranking first in India in biotechnology and eighth in the world in the Stanford University, USA, Citation Report (since 2020).





Sir please tell us more about your research topics and why you chose only these.

As mentioned above, I entered in the research filed with an interdisciplinary approach. As regards the topics, at times, these were decided by the institutional priorities but over the period of time, when I started to apply for external financial support for my research, I chose topics of my interest. Industrial enzymes, in particular hydrolytic enzymes have been an area close to my heart and in early 1990s, my first externally funded project was on this topic.

As deep I went into this topic I got more and more attracted with curious mind and questions and continue my journey on working on various industrial enzymes. When we started to work on bio-based pro-

cesses and products, with an aim to use the lignocellulosic (LC) biomass such as straw as the feedstock, the background strength of domain enterprise on industrial enzymes gave us an upper hand as enzymatic hydrolysis of is an essential step for the use of LC biomass for further application.

Over a period of time, we realized that the first step, i.e., pretreatment to deconstruct the LC biomass is far more critical and challenging than the researchers had envisaged. Then, we entered on this area. Thus, the need arising from the work, kept on giving us clues and ideas to undertake as we targeted to develop an integrated process for the fuels and chemicals production from biomass.



Image: Prof Ashok Pandey received best faculty award from career 360 in 2018 and again in 2023

How your research is supporting Indian economy/ saving billions of dollars by ethanol blending.

It was in 2003, I first started to talk about second generation ethanol in India. In consultation with several of collaborative partners, we undertook this activity as part of 5-Year Plan projects. We subsequently undertook a study as India Country Consultant for the International Energy Agency (IEA), France on Prospects of Second Generation Biofuels in India, considering bioethanol and biodiesel in 2005. Our study clearly showed that biodiesel was not feasible for India as for that we need vegetative oil and vegetative oil is not produced in India even to meet our food requirement. This report was in-toto accepted by the IEA and became the part of its Task Force Report 39. Sadly or strangely, our own country-men, referred as 'experts' by the other scientific department (which subsequently became the nodal agency for biofuels program) did not agree to this (that biodiesel was not feasible to produce in India using own vegetable oil

resources). But in science only facts and truth prevail, not pseudo-science. It was a matter of time only, these 'pseudo-experts' finally agreed that biodiesel cannot be a part of national biofuels policy as we don't have indigenous feedstock to produce it. But, in the process, we lost several precious years, following a wrong policy and also wasted a lot of funds.

Subsequently, we prepared the Position Paper on Bioethanol (second generation) in India for the Technology Information, Forecasting and Analysis Council (TIFAC), Department of Science and Technology, Govt of India in 2006 and also did the same for CSIR. In pursuance to this, we firstly mapped the whole country to estimate the 'true' (surplus) quantities of LC biomass available for such a program, which ascertained well the feasibility of 2G bioethanol program in India. We made several recommendations. Over the period of time, we put the first pilot plant on 2G bioethanol in India under public sector and also a pilot plant for the production of biomass hydrolyzing enzymes. Based on the lab results and pilot plant re-

sults, we developed an integrated process for the production of bioethanol (2G) and proved the technical feasibility of the process, although the cost of ethanol produced was much higher than the molasses ethanol.

In fact, technically and scientifically there is no sense in comparing the cost of ethanol produced from molasses and LC biomass (I don't have to give the detailed reasoning for this which is too well known to the experts). What is needed is to guide and help the policy-planners to understand this clearly with reasoning.

So, coming back to your question, 10% blending was announced several years as 'mandatory' but it was not legal! And could never be implemented. Reasons have been various, including non-availability of ethanol for blending purpose, lack of incentives, and more importantly seemingly the lack of policy-implementation will. Thanks to the great vision and initiatives taken by the Prime Minister Sri Narendra Modi and his government, scenario started to change with enforcement of policy to attain 10% blending. Various incentives were given and policies were drawn, including allowing the use of surplus sugarcane, broken rice and damaged grains, and other incentives, 10% blending was achieved ahead of the targeted date. This showed the will to fulfill a commitment given by the Prime Minister and his government to reduce the greenhouse gases emission in India (as part of the UN Climate Change Agreement). Encouraged by this success, Sri Modi and his government (based on the scientific inputs) decided to increase the blending to 20% with a target date to achieve it, with support from the policies and incentives.

Blending of petrol with 10 or 20% brings multiple advantages to the country. Firstly, it helps to fulfill Indian commitment to reduce the GHG emissions Helping to attain cleaner environment which be beneficial for the health of population. Now these benefits to environment and health cannot be quantified in terms of

dollars but these are extremely significant. The second advantage is that (which can be surely quantified in terms of dollars) that we will save huge money by reducing the equivalent quantities of fuel from abroad. The third, any very important benefit is a kind of national energy security we will attain – even if at very small level- by developing our own fuel.

There is upbeat in scientific and industrial community for the above and credit fully goes to the Prime Minister Sri Narendra Modi and his government for the vision and plans.

What key positions you have held in your career as well as consulting, including GOI.

I have been working as scientist in CSIR institute in Trivandrum in various capacities, reaching to the highest level as Chief Scientist. I had established Biotechnology Division there and also established the Centre for Biofuels and had been the Head for these. I have been member or chairman in various scientific committees of CSIR, DST, DBT, MNRE, etc. Also, I have been consultant to some industries. After working for almost 30 years (1987-2016), I moved to Center of Innovation and Applied Bioprocessing at Mohali in April 2016 as Eminent Scientist and after a short stay there, in Sep 2017, I moved to CSIR-Indian Institute of Toxicology Research, Lucknow as Distinguished Scientist and continuing here. I hold the position of National Innovation Chair from the Hitech Biosciences Ltd, Pune as well.

Apart from the above I have worked in many countries as Visiting/Distinguished Professor or Visiting Scientist, including *Argentina, Australia, Belgium, Brazil, Canada, China, France, Germany, Greece, Hong Kong, Hungary, Ireland, Italy, Japan, Malaysia, Mexico, Netherlands, Nigeria, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Thailand, Taiwan, UK, USA and Viet Nam.*

What are the most prestigious awards given to you.

Your question made me to smile, Kamal. Well, there are several awards and honors I have received, mostly from international agencies as below:

- Fellow, Indian National Science Academy (2024)
- India Research Excellence Citations Award, Clarivate, USA (2023)
- Eminent Visiting Professor, Kyung Hee University, Republic of Korea (2023-2024)
- ResearchCom Biology and Biochemistry India 2022 Leader (Rank #1); <https://research.com/u/ashok-pandey> (2023)
- Fellow, The World Academy of Sciences (TWAS) (2023)
- Highly Cited Researchers (h index >100), Google Scholar Citations, 15th Edition, BETA list, <https://www.webometrics.info/en/hlargerthan100> (2022)
- Distinguished Professor, University of Petroleum & Energy Studies, Dehradun, India (2022-2026)
- Guest Professor, Jiangnan University, China (Dec 2021-November 2023)
- Rank #1 in India in Biology & Biochemistry (#455 in the world), ResearchCom-, [https://research.com/scientists-rankings/biology-and-biochemistry\(2022\)](https://research.com/scientists-rankings/biology-and-biochemistry(2022))
- Rank #1 in India in Microbiology under Enabling and Strategic Technologies sector and No 4 in overall in science and engineering- Elsevier Citation Report- Highly Cited Researchers (top 2% in the world)-<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/3/files/d1a08dbe-1a4d-4d9f-942e-5a78bc7afde5> (2021)
- Rank #1 in India in Biotechnology (#8 in the world), Stanford University world ranking (2020, 2021)
- Highest Cited Researcher (Top 1% in the world), Clarivate Analytics, Web of Science (2018-2022)
- Highly Cited Researchers (h index >100), Google Scholar Citations, 14th Edition, BETA list, <https://www.webometrics.info/en/hlargerthan100> (2021)
- Distinguished Fellow, the Biotech Research Society, India (2021)
- Fellow, World Society of Sustainable Energy Technologies (2020)
- Fellow, Indian Chemical Society (2020)
- Distinguished Scientist, 7th International Scientist Awards on Engineering, Science and Medicine, India; VDGGOOD Professional Association (2020)
- Distinguished Professor of Eminence with global impact in Biotechnology, Precious Cornerstone University, Ibadan, Nigeria (2020)
- IconSWM Life-time Achievement Award 2019, International Society for Solid Waste Management, KIIT, Bhubaneswar, India (2019)
- Visiting Professor, Universite Clermont Auvergne, France ((2019-2020))
- Adjunct Professor, Yonsei Frontier Lab, Yonsei University, Seoul, South Korea (2019-2020)
- Yonsei Outstanding Scholar, Yonsei University, Seoul, Korea (2019)
- Life-Time Achievement Award, the Biotech Research Society, India (2018)
- Adjunct Professor, SMVD University, Katra, J&K (2018-2021)
- Visiting Scientist, Durban University of Technology, Durban, South Africa (2018)
- Life-Time Achievement Award, Venus International Research Awards, Chennai, India (2018)
- Visiting Researcher, University of Quebec, INRS, Quebec, Canada (2018)
- Most Outstanding Researcher Award, Career360 (2018)
- Visiting Professor, Universite Clermont Auvergne, France (2018)
- Advisor, Adhita Biosciences Pvt Ltd, Lucknow, India (2017)
- Visiting Professor, EPFL, Lausanne, Switzerland (2017)
- Distinguished Scientist (HTBS National Innovation Chair) (2017)
- Honorary Executive Director, Centre for Energy and Environmental Sustainability- India (2017)
- Guest Professor, Jiangnan University, Wuxi, China (2017)
- Life-Time Achievement Award, International



Image: Prof Ashok Pandey with his wife Mrs Sushma Pandey

Society for Energy, Environment and Sustainability (2017)

- Fellow, Royal Society of Biology, UK (2016)
- Adjunct Professor, MACFAST, Thiruvalla, Kerala (2016)
- Adjunct Professor, VIT University, Vellore, Tamil Nadu (2016)
- Academician (Active Member VI), European Academy of Sciences & Arts, Salzburg, Germany (2016)
- Subject Editor-Proceedings of National Academy of Sciences, India (2016)
- Fellow, International Society for Energy, Environment and Sustainability (2014)
- Fellow, National Academy of Sciences, India (2012)
- Adjunct Professor, Kalasalingam University, Krishnan Koil, Tamil Nadu (2014)
- Judge, Elsevier Peer Review Challenge Program, Elsevier UK (2012)
- Editor-in-chief, Bioresource Technology, Elsevier, UK (2011)

- Fellow, Association of Microbiologists of India (FAMI) (2010)
- Fellow, International Organization for Biotechnology and Bioengineering (FIOBB) (2008)
- SciTopic Author, Elsevier (2008)
- Visiting Professor, EPFL, Switzerland, (2008-2011, December each year)
- Appreciation Award, Federal University of Parana, Brazil (2007)
- Honorary Doctorate degree, Univesite Blaise Pascal, France (2007)
- Thomson Scientific Award- India Citation Laureate (2006)
- Lupin Visiting Fellow (2005)
- Editor, Bioresource Technology, Elsevier Science, UK (2004)
- Chair (F&H), International Society of Food, Agriculture & Environment (Finland) (2003-2004)
- Visiting Professor, Univesite Blaise-Pascal, Clermont-Ferrand, France (2003-2017 – June/July each year)
- Best Scientific Achievement Award for the

year 2001, Govt of Cuba, jointly with three others (2002)

- UNESCO Professor (2000)
- Visiting Faculty [Professor Titular], Federal University of Parana, Curitiba, Brazil (1998-2000)
- Visiting Scientist, University of Sunderland, Sunderland, UK (1996)
- Raman Research Fellowship Award, CSIR, New Delhi (1995)
- CNRS France Fellowship, France (1993)
- GBF International Fellowship, Germany (1992)
- Young Scientist Award, DSTE, Trivandrum (1989)

How do you see Nepotism in biotechnology

Kamal- This is a very serious issue and all of us know well that how badly politics in science has impacted the growth of science in our country (is impacting now also). There has been terrible partiality in allocation of funds to the researchers, no or less attention on team building, distribution of awards to mostly non-deserving (at the cost of deserving), etc. The decision by the present government to suspend a large number of awards has been a needed step as generally these awards were not been managed properly and were 'distributed' to the loyalists of a few handful people in different domains of S&T, simply ignoring the brightest and rightful candidates. At the same time, this decision has brought sadness also among the scientists.

I do not want to talk further about it as it has only negative contents to talk about.

What could be reason you are not being selected as secretary or PSA even when you are no.1 in bioscience sector in India and most cited Indian at 3rd position whereas others current govt officers are not even close to you in rankings.

Hahhahahahaa..... what can I comment on this, Kamal? As mentioned above about the awards, similar scenario has been (rather still prevailing) in our country on such selections. While there are some changes and improvements to recognize the merit, this has been not the criteria for the selections (selections have been based on the proximity to those 'bosses'). You see one simple example; you will not find most of the Heads of institutes talking about Top cited researchers. Note that top cited researchers as identified by many agencies such as Clarivate has a very broad and scientific methodology to select them, which is just not based on citations, but takes into account almost 15-20 criteria to decide the impact of research. So, the question comes back, why these top-cited researchers are not as Heads of institutes or have prominent roles in the decision-making and policy-making bodies?

The answer is quite obvious, which I hope all of us understand well..

Can you share your experience with peers and how it is different from foreign peers support.

There is huge and very role of peers in the life of a researcher. I am very fortunate to have several globally recognized colleagues from India as my seniors, well-wishers and peers who helped a lot in shaping my professional life. I wish to remember at this point my PhD supervisor, Prof KP Tiwari from University of Allahabad, Prof G Padmanaban from IISc Bangalore, Prof Asis Datta from NIPGR, Dr Amit Ghosh (formerly at IMT Chandigarh), Prof TP Singh, AIIMS, Delhi, Prof V Nagaraja, IISc Bangalore, Prof GD Yadav, ICT Mumbai, Prof Krishna Mishra, currently at IIIM Prayagraj, etc to name a few. I am extremely grateful to them for their well-wishes, advises and support.

What has been role of your family during this journey of your life.

Kamal- I always feel that family is an integral part of anyone's professional life as at some point of time, you have to bridge a sustainable balance between the professional and personal life. My family, my wife and the son and daughter have been a solid rock support for my professional life. I don't think I would have been able to contribute whatever I have done without their unconditional support, love, care and affection for me and honoring my professional commitments to fulfill.

At last, do you have any message to life science community of India.

What to say! There is no alternative to hard work and sincerity. Adopt the profession as passion and not as 'job'. Respect the time (I always say that if you do not respect the time, one day time will not respect you). Believe in yourself, think big and make your own move to march forward, building a team and working together with respect and equality for each member. Do good science at first point and never indulge on a wasteful debate on basic science or applied science.



BRSI - Glimpse of 20 years



Journey of 20 years of the Biotech Research society, India (BRSI)

by Kamal Pratap Singh

I remember when I started Biotech Express magazine in 2013 and the same year I requested BRSI to attend this event. I was blessed because I got in touch directly with Prof Ashok Pandey and at that time I did not know much about him. Since this was my first event as an editor and publisher of magazine I went there to cover an event but I was stunned to see the large crowd and stalwarts of biotechnology who gathered at one place i.e. in JNU auditorium. The crowd was so

huge that left me to think and meet only few people and I was unable to cover the whole event.

But, even after partial reporting I was successful to get attention of BRSI founder Prof Ashok Pandey and subsequently Biotech Express became official media partner of BRSI.

The purpose of writing this article in Biotech Express is to let understand our audience that we have a great



biotech society in India which would support you in shaping career and communicate good research while partnering with peers. BRSI as I would have seen is the best non- government society that caters the need of researchers in every aspect of career prospect. BRSI organizes annual event and this year is its 20th convention at Trivandrum. Along with plenary and invited talks, and contributory oral and poster presentations, which happens in almost every conference, BRSI offers unique opportunities to scientists/researchers like one to one discussion with your idols, science tour, research consultancy, etc.

BRSI which was founded in 2004 with aim to promote the R&D in biotechnology and bring interaction between the academic institutes and biotech industries has become India's topmost non government biotechnology organization that bring hundreds of researchers under one umbrella.

Awards by BRSI

BRSI felicitates good science and scientists by giving

proper recognition to them. During last several years it has instituted many awards that are given each year to the scientists and young researchers and industrialists. The essence of the evaluation of the nominees is the quantifiable output/outcome from the works of the candidates under various indicators such as patents, publications, technologies, awards, other contributions, contribution for the growth and development of the Society, etc. The awards are given in the following categories:

Fellows (FBR) - The Society confers Fellow awards in three categories as below.

Fellows (FBR): Members of Society having long-standing and significant contribution to the field as well as eminent scientists/technologists working in various areas of biotechnology is considered to be elected as Fellow of BRSI (FBR).

Honorary Fellows: Eminent persons who

have rendered distinguished service to the nation in Biotechnology can be considered to be conferred as Honorary Fellow of the Society.

Overseas Fellows (FBR): Members of Society having long-standing and significant contribution to the field as well as eminent scientists/technologists working in various areas of biotechnology working overseas can be considered to be elected as Overseas Fellow of BRSI.

Life-Time Achievement Award -Members of BRSI above the age of 55 years involved in Biotech R&D for his/her life time contribution to the field of Biotechnology is eligible for this award.

Young Scientist Award - Members of BRSI of 35 years or below as on 31st December of award year involved in Biotech R&D for his/her outstanding contributions would be eligible for this award.

Woman Scientist Award -Women members of BRSI below the age of 45 years as on 31st December of award year involved in Biotech R&D for her outstanding contributions would be eligible for this award.

Industrial Medal Award - Members of BRSI involved in Biotech R&D for his/her outstanding contribution, which has resulted in commercialization of a product/process is selected for this award.

AU-CBT Excellence Award - This award was instituted by the Centre for Biotechnology, Anna University, Chennai in 2005. Members of BRSI registered for PhD studies in any Indian university/institute below the age of 30 years as on 31st December of award year involved in Biotech R&D for his/her outstanding performance is selected for the award. Two awards are given every year.

Malaviya Memorial Awards for Teaching Faculties - This award was instituted by the Banaras Hindu University, Varanasi instituted in 2009. Members of BRSI working as teachers involved in Biotech R&D for his/her outstanding contribution would be eligible. Two awards are given in each year, one for Young Faculty below the age of 40 years and one for the Senior Faculty above the age of 40 years as on 31st December of

award year.

SBS-MKU Genomics Award - This award was instituted by the School of Biological Sciences, Madurai Kamaraj University, Madurai in 2010. Members of BRSI below the age of 40 years as on 31st December of award year involved in R&D in the area of Genomics Sciences for his/her outstanding contribution is selected for this award.

Prof SB Chincholkar Memorial Award - The Society has instituted a memorial award in the honour of Late Professor Sudhir B Chincholkar in the year 2015. Prof Chincholkar was first General Secretary of BRSI and also conducted the 1st Convention of BRSI at Jalgaon in 2004. In this regard, an endowment fund has been created with the contribution from the members of the Society, along with the support of North Maharashtra University Unit, Jalgaon of the Society.

BHU Centennial Award- This award was instituted with the initiatives of Prof S N Upadhyay from Banaras Hindu University as proposer and coordinator for this with an intention to create an endowment fund contributed by BHU alumni. The award is to celebrate 100 years of establishment of the Banaras Hindu University. Two awards are given in each year.

CDC India-Prof Ashok Pandey Research Excellence Award-This award was institute by the CDC India, Jaipur in 2021 with the initiatives of DrVivek Agarwal who donated funds as an endowment award in name of Prof Ashok Pandey to recognize immense contribution made by him. Members of BRSI below the age of 40 years as on specified date involved in Environmental Biotech R&D for outstanding contributions are eligible for this award.

Thus, from these award categories, we can see that BRSI has kept in mind each and every member of biotech community, with cross-fields activity that could support growth of this sector and motivate them by giving them proper recognition they deserve.



Image: Cultural events and Science tours are being organized in every BRSI event



Image: Poster presentation during one of the event of BRSI

Memberships options

Now, the question comes who can become the member of this prestigious biotechnology society from India and if it cost anything. When asked, Prof Pandey told that we are not money oriented but a small fee tells us how dedicated you are to your subject and career and thus you pay by any means. He added though it is non-government society the joining fee is meagre.

There are two options joining the society, first as **LIFE MEMBER**. This is open to any person who is from biotech or life sciences field. Life membership one-time fee is Rs. 7500 which is valid till the age of 75 years. The other **ORDINARY MEMBERSHIP** is open to any persons possessing Master's degree in Science in Biological, or Life Sciences, or Bachelor's degree in Engineering in Biotechnology or Biochemical Engineering or working in the area of biotech research and business, but not possessing the aforesaid qualifications can also apply for the membership of the Society.

BRSI Newsletter

BRSI also publish quarterly news letter of the Society which has been published uninterruptedly since the establishment of the Society, beginning January 2004. Four issues are published each year in January, April, July and October and circulated to the members.

Highlights of BRSI conventions held since 2004: Apictorial journey

1. I Convention (November 25-27, 2004), North Maharashtra University, Jalgaon, Maharashtra; National symposium on "Developments in Biotechnology: Emerging Trends and Challenges"
2. II Convention (November 24-26, 2005), Anna University, Chennai, Tamil Nadu; International Conference on Path to Health, Biotechnology Revolution in India



Late Prof M K Bhan a renowned biologist of India as the chief guest of BRSI event in 2005

- III Convention (November 2-4, 2006), Sardar Patel University, Vallabh Vidyanagar, Gujarat; International Conference on Recent Trends in Biotechnology



BRSI - Glimpse of 20 years

- IV Convention (November 26-29, 2007), CSIR-- National Institute for Interdisciplinary Science and Technology, Trivandrum, Kerala; International Conference on New Horizons in Biotechnology



- V Convention (November 5-8, 2008), Osmania University, Hyderabad, Andhra Pradesh; International Congress on Bioprocesses in Food Industries
- VI Convention (December 4-6, 2009), Banaras Hindu University, Varanasi, Uttar Pradesh; International Conference on Emerging Trends in Biotechnology.



BRSI - Glimpse of 20 years

7. VII Convention (November 12-14, 2010), Madurai Kamaraj University, Madurai, Tamil Nadu; International Conference on Genomics Sciences- Recent Trends



BRSI - Glimpse of 20 years

8. VIII Convention (November 21-24, 2011), CSIR- National Institute for Interdisciplinary Science and Technology, Trivandrum, Kerala; International Conference on New Horizons in Biotechnology



9. IX Convention (November 21-23, 2012), Punjabi University, Patiala, Punjab; International Conference on Industrial Biotechnology



10. X Convention (November 25-27, 2013), Dr DY Patil Institute of Biotechnology & Bioinformatics, Pune, Maharashtra



11. XI Convention (November 6-9, 2014), Jawaharlal Nehru University, New Delhi; as International Conference on Emerging Trends in Biotechnology (ICETB-2014)



BRSI - Glimpse of 20 years

12. XII Convention (November 22-25, 2015), CSIR- National Institute for Interdisciplinary Science and Technology, Trivandrum, Kerala; International Conference on New Horizons in Biotechnology



13. XIII Convention (December 8-10, 2016), VIT, Vellore, Tamil Nadu; International Conference on Current Trends in Biotechnology (ICCB-2016)



14. XIV Convention (October 8-10, 2017), CSIR-National Environmental Engineering Research Institute, Nagpur, Maharashtra; International Conference On Emerging Trends in Biotechnology for Waste Conversion



BRSI - Glimpse of 20 years

15. XV Convention (November 22-25, 2018), CSIR-Indian Institute of Chemical Technology, Hyderabad, Andhra Pradesh; International Conference on Biotechnological Research and Innovation for Sustainable Development (BioSD-2018)



16. XVI Convention (November 21-24, 2019), CSIR- National Institute for Interdisciplinary Science and Technology, Trivandrum, Kerala; International Conference on New Horizons in Biotechnology



17. XVII Convention (2020; held on April 4-8, 2021), CDC India, Jaipur, Rajasthan; International Conference on Biotechnology for Sustainable Agriculture, Environment and Health



BRSI - Glimpse of 20 years

18. XVIII Convention (December 1-4, 2021), CSIR-Indian Institute of Petroleum, Dehradun, Uttarakhand; International Conference on Biotechnology for Resource Efficiency, Energy, Environment, Chemicals, and Health (BRE3CH-2021)



19. XIX Convention (December 7-11, 2022), Indian Institute of Technology, Guwahati, Assam; International Conference on Biotechnology for Sustainable Bioresources and Bioeconomy



20 XX Convention (November 26-29, 2023); CSIR- National Institute for Interdisciplinary Science and Technology, Trivandrum, Kerala; International Conference on New Horizons in Biotechnology

BRSI - Glimpse of 20 years

BRSI-A Decade of Journey Book (2003-2013)

To commemorate the decennial celebrations of the Society and the occasion, a book was prepared by the Central Office of the Society, which provided the history and development of the Society taken place during the ten years of its growth. The book was compiled and edited by Dr P Binod. This was released by the Chief Guest of the function, Prof AsisDatta.



Few BRSI Event Sponsors



Fellows of BRSI during Last 20 years

DISTINGUISHED FELLOW OF BRSI

- PANDEY Ashok, FBRS, Distinguished Scientist, CSIR-Indian Institute of Toxicology Research, Lucknow, Uttar Pradesh (2022)

HONORARY FELLOWS OF BRSI

1. Brahmachari SK, Director, Institute of Genomics and Integrated Biology, CSIR, Mall Road, New Delhi-110 007 (2005)
2. DattaKasturi, Emeritus Professor, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi (2015)
3. DhawanAlok, Director, CSIR-Indian Institute of Toxicology Research, Lucknow-226 001, UP (2018)
4. Edison S, Director, Central Tuber Crop Research Institute, Sreekariyam, Trivandrum-695 017, Kerala (2006)
5. Gaikawai RP, Chairman & Managing Director, Hi-Tech Biosciences, Saudamini Complex, Kothrud, Pune - 411 038, Maharashtra (2012)
6. Ganguli BN, Scientific Advisor, Institute of Microbial Technology, Sector 39-A, Chandigarh-160 036 (2007)
7. Ghosh Amit, Director, School of Biological Sciences, Indian Institute of Advanced Research, Block-2, 1st Floor, UdyogBhavan, Sector-11, Gandhinagar-382 017, Gujarat (2007)
8. Gupta YK, Professor & Head, Department of Pharmacology, All India Institute of Medical Sciences, New Delhi-110 029, Delhi; email: ykg@hotmail.com, yk.ykgupta@gmail.com (2008)
9. Kambjoj VP, Emeritus Scientist, Former Director, Central Drug Research Institute, Lucknow-226 001, Uttar Pradesh, email: kambojvp@yahoo.com (2006)
10. Majumdar Kiran, Managing Director, Biocon India Limited, 20th Km Hosur Road, Hebbaguddi, Bangalore, Karnataka (2005)
11. MandeShekhar C, Director General, Council of Scientific and Industrial Research, New Delhi-110 001 (2019)
12. Mashelkar RA, Former Director-General, Council of Scientific and Industrial Research, 2 Rafi Marg, New Delhi-110 001 (2005)
13. Nagaraja V, Distinguished Professor, Indian Institute of Science, Bangalore-560 012, Karnataka, email: vraj@iisc.ac.in (2020)
14. Padmanaban G, Distinguished Biotechnologist, Indian Institute of Science, Bangalore-560 012, Karnataka, email: geepee@biochem.iisc.ernet.in (2006)
15. PalkhiwalaPiyush, Chairman & Managing Director, MAPS Enzymes Ltd, 302, Shapath-3, Ahmedabad- 380 054, Gujarat (2011) (Late)
16. PillaiRadhakrishnan M, Director, Rajiv Gandhi Centre for Biotechnology, Jagathy, Trivandrum-695 014, Kerala (2009)
17. Prakash V, Director, Central Food Technological Research Institute, CSIR, Mysore-570 013, Karnataka (2008)
18. Pushpangadan P, Former Director, National Botanical Research Institute, CSIR, Rana Pratap Marg Lucknow-226 001, Uttar Pradesh (2007)
19. Qazi GN, Director, National Institute for Integrative Medicines, Formerly Regional Research Laboratory, CSIR, Jammu-Tawi-180 001, Jammu & Kashmir; email: qazi_gn@yahoo.com (2005)
20. Ramachandran KB, Emeritus Professor, Department of Biotechnology, Indian Institute of Technology, Chennai-600 036, Tamil Nadu; email: kbaram@iitm.ac.in (2014)
21. Ray Anjan, Director, CSIR-Indian Institute of Petroleum, Dehradun-248 005; email: anjan.ray@iip.res.in (2020)
22. Sahoo DB, Director, Institute of Bioresources and Sustainable Development (DBT, Govt of India), Imphal, Manipur (2017)
23. Sharma MM, Former Director, University Department of Chemical Technology, Bombay Uni-

versity, Mumbai, Maharashtra; Resi: 3 Jaswantbaug, Runwal Park, Behind Akbarally's, Chembur Naka, Mumbai-400 071, Maharashtra; email: mmsharma@bom.vsnl.net.in (2005)

24. SinghLalji, Director, Centre for Cellular and Molecular Biology, CSIR, Uppal Road, Hyderabad-500 007, Andhra Pradesh (2006) (Late)

25. Vijayan M, Distinguished Biotechnologist, Former Associate Director, Indian Institute of Science, Bangalore-560 012, Karnataka; email: mv@mbu.iisc.ernet.in, Tel: 080-23600765, Fax 080-23600221 (2006)

26. Yadav Ganapati D, National Science Chair (SERB/DST/GOI) Emeritus Professor of Eminence, Institute of Chemical Technology, Mumbai (2022)

OVERSEAS FELLOWS OF BRSI

1. KAUL Sunil, FBRS, Chief Senior Research Scientist, National Institute of Advanced Industrial Science & Technology, Tsukuba, Japan(2015)

2. MADHYASTHAHarsihkumar, Department of Applied Physiology, University of Miyazaki, Japan (2019)

3. NIGAM Poonam, FBRS, Director- Postgraduate Program (Biotechnology) & Senior Lecturer, Department of Biological Sciences, University of Ulster, Northern Ireland, UK (2013)

4. PANT Deepak, FBRS, Senior Scientist, Flemish Institute for Technological Research (VITO), Mol, Belgium (2018)

5. TYAGI RajeshwarDayal, FBRS, Professor of Biochemical Engineering, University of Quebec, INRS-ETE, Quebec, Canada (2018)

6. WADHWA Renu, Prime Senior Research Scientist, Leader of DBT-AIST International Laboratory for Advanced Biomedicine National Institute of Advanced Industrial Science & Technology, Tsukuba, Japan (2016)

FELLOWS OF BRSI

1. BANEJEE Rintu, FBRS, Professor, Agricultural & Food Engineering Department, Indian Institute

of Technology- Kharagpur, West Bengal (2005)

2. BANERJEE Uttam C, FBRS, Head, Department of Pharmaceutical Technology, National Institute of Pharmaceutical Education and Research, Punjab (2005)

3. BHALLA Tek Chand, FBRS, Professor, Department of Biotechnology, Himachal Pradesh University, Shimla-171 005, Himachal Pradesh(2014)

4. BHANAGE BM, FBRS, Professor & Dean, Institute of Chemical Technology, Mumbai-400 019, Maharashtra (2017)

5. BHATTACHARYYA BC, FBRS, Techno India, EM4/1, Sector V, Salt Lake, Kolkatta-700 091, West Bengal (2006)[LATE]

6. CHANDRA, Ram, FBRS, Professor, BB Ambedkar University, Lucknow, Uttar Pradesh (2013)

7. CHINCHOLKAR Sudhir B, FBRS, Professor & Director, School of Life Sciences, North Maharashtra University, Jalgaon, Maharashtra (2005)[LATE]

8. CHINTALAPATI Sasikala, FBRS, Professor, Centre for Environment, Jawaharlal Nehru Technological University, Hyderabad (2022)

9. DAS D, FBRS, Department of Biotechnology, Indian Institute of Technology, Kharagpur-721 302, West Bengal (2011)

10. DAVE Shailesh Ramakrishna, FBRS, Professor, Department of Microbiology, School of Sciences, Gujarat University, Ahmedabad-380 009, Gujarat (2008)

11. DESHMUKH Aravind M, FBRS, Reader & Head, Department of Microbiology, Dr. B. A. Marathwada University, Sub-center Osmanabad, Osmanabad, Maharashtra (2005)

12. DUBEY, RS, FBRS, Professor, Department of Biochemistry, Banaras Hindu University, Varanasi, Uttar Pradesh (2010)

13. DUBEY Vikash Kumar, FBRS, Professor, Department of Biotechnology, Indian Institute of Technology, Guwahati (2014)

14. GARG Vinod Kumar, FBRS, Professor, Department of Environmental Science and Engineering, Guru Jambheshwar University of Science and Technology, Hisar-125 001, Haryana (2011)

15. GOKHALE DV, FBRS, Head, National Collection of Industrial Microorganisms, National Chemical Laboratory, Pune-411 008, Maharashtra (2010)

16. GOTHANDAM K M, FBRS, School of Bio

Sciences and Technology, VIT University, Vellore (2021)

17. GOVINDWAR SanjayP, FBRS, Professor & Head, Department of Biochemistry, Shivaji University, Kolhapur, Maharashtra (2009)

18. GOYAL Arun, FBRS, Associate Professor, Biotechnology Department, Indian institute of Technology, North Guwahati, Assam (2008)

19. GUMMADI Sathyanarayana, FBRS, Professor, Department of Biotechnology, Indian Institute of Technology Madras, Chennai, Tamil Nadu (2018)

20. GUNASEKARAN Paramasami, FBRS, Professor & Head, Department of Genomics, School of Biological Sciences, Madurai Kamaraj University, Madurai-625 021, Tamil Nadu (2005)

21. GUPTA MunishwarNath, FBRS, Professor, Department of Chemistry, Indian Institute of Technology- Delhi, Houz Khas, New Delhi-110 016, Delhi (2006)

22. HALAMI Prakash Mothiram, FBRS, Department of Microbiology and Fermentation Technology, CSIR-CFTRI Mysore (2021)

23. JAIN Rakesh K, FBRS, Scientist, Institute of Microbial Technology, Sector 39-A, Chandigarh-160 036, Punjab (2004)[LATE]

24. JAYACHANDRAN S, FBRS, Professor & Head, Department of Biotechnology, Pondicherry University, Pondicherry (2005)

25. JOSHI Vinod K, FBRS, Associate Professor, Department of Post-harvest Technology, Dr Y S Parmar University of Horticulture & Forestry, Nauni, Solan, Himachal Pradesh (2005)[LATE]

26. KALIRAJ P, FBRS, Director, Centre for Biotechnology, Anna University, Chennai-600 025, Tamil Nadu (2009)

27. KAPADNIS BalasahebP, FBRS, Department of Microbiology, University of Pune, Pune-411 007, Maharashtra (2013)

28. KHAN AsadUllah. FBRS, Interdisciplinary Biotechnology Unit, Aligarh Muslim University, Aligarh-202 002, Uttar Pradesh (2014)

29. KHAN Rizwan Hasan, Professor, Interdisciplinary Biotechnology Unit, Aligarh Muslim University, Aligarh, Uttar Pradesh (2017)

30. KHARE Sunil K, FBRS, Professor (Biochemistry), Enzyme and Microbial Biochemistry Laboratory, Chemistry Department, Indian Institute of Technolo-

gy-Delhi, New Delhi (2012)

31. KRISHNAN Sankaran, FBRS, Professor, Centre for Biotechnology, Anna University, Sardar Patel Road, Chennai-600 025, Tamil Nadu (2006)

32. KRISHNANI Kishore Kumar, FBRS, Principal Scientist, Division of Aquaculture, ICAR-Central Institute of Fisheries Education, Mumbai, Maharashtra (2019)

33. KUHAD Ramesh Chander, FBRS, Department of Microbiology, University of Delhi, South Campus, New Delhi-110 021 (2013)

34. KUMAR Ganesh C, FBRS, Principal Scientist, CSIR-Indian Institute of Chemical Technology, Hyderabad-500 007, Andhra Pradesh (2016)

35. KUMAR Pravindra, FBRS, Department of Biotechnology, Indian Institute of Technology Roorkee, Roorkee (2021)

36. LELE Smita S, FBRS, Professor of Biochemical Engineering, Head, Food Engineering and Technology, Institute of Chemical Technology, Mumbai- 400 019, Maharashtra (2010)

37. MADAMWAR Datta, FBRS, Professor, Department of Biosciences, Sardar Patel University, Vallabh Vidya Nagar, Anand-388 120, Gujarat (2004)

38. MALIK Anushree, FBRS, Institute Chair Professor and Head, Centre for Rural Development and Technology, Indian Institute of Technology, New Delhi (2019)

39. MALIK Yashpal Singh, FBRS, Dean, College of Animal Biotechnology, Guru Angad Dev Veterinary and Animal Science University, Ludhiana, Punjab (2020)

40. MISHRA Brahmeshwar, Professor of Pharmaceutics, Department of Pharmaceutics, Institute of Technology, Banaras Hindu University, Varanasi-221 005, Uttar Pradesh (2009)

41. MISHRA Krishna, FBRS, Coordinator, Indo-Russian Center for Biotechnology, IIIT-A, Jhalwa, Allahabad-211 011, Uttar Pradesh (2005)

42. MISHRA Saroj, FBRS, Professor, Department of Biochemical Engineering and Biotechnology, Indian Institute of Technology- Delhi, New Delhi-110 016 (2005)

43. MOHANTY Kaustubha, FBRS, Department of Chemical Engineering, IIT Guwahati, Guwahati (2021)

44. MONDAL Keshab Chandra, FBRS, Depart-

ment of Microbiology, Vidyasagar University, Midnapore, West Bengal (2020)

45. NAMPOOTHIRI Madhavan K, FBRS, Principal Scientist & Head, Microbial Processes and Technology Division of CSIR-National Institute for Interdisciplinary Science and Technology, Trivandrum-695 019, Kerala (2016)

46. PAKNIKAR Kishore M, FBRS, Agarkar Research Institute, Agarkar Road, Pune-411 005, Maharashtra (2005)

47. PANDEY Ashok, FBRS, Head, Biotechnology Division, National Institute for Interdisciplinary Science and Technology, CSIR, Industrial Estate PO, Pappanamcode, Trivandrum-695 019, Kerala (2005)

48. PANDEY Ram A, FBRS, Deputy Director, Environmental Biotechnology Division, National Environmental Engineering Research Institute, CSIR, Nehru Marg, Nagpur-440 020, Maharashtra (2005)

49. PANESAR Parmjit Singh, FBRS, Professor, SantLongowal Institute of Engineering and Technology, Longowal (2018)

50. PANT Kamal Kishore, FBRS, Petrotech Chair Professor and Head, Department of Chemical Engineering, Indian Institute of Technology, New Delhi-110 067 (2019)

51. PRAKASHAM Reddy Shetty, FBRS, Senior Principal Scientist, CSIR-Indian Institute of Chemical Technology, Hyderabad-500 007, Andhra Pradesh (2015)

52. PRASAD Ram, FBRS, Department of Botany, Mahatma Gandhi Central University, Motihari, Bihar (2022)

53. PRASAD RBN, FBRS, Chief Scientist & Head, Lipid Science and Technology Division, CSIR-Indian Institute of Chemical Technology, Hyderabad-500 007, Andhra Pradesh (2014)

54. PUNIA Anil Kumar, FBRS, Principal Scientist, ICAR-National Dairy Research Institute, Karnal, Haryana (2019)

55. PUROHIT Hemant J, FBRS, Deputy Director, CSIR-National Environmental Engineering Research Institute, Nehru Marg, Nagpur (2009)

56. PUVANAKRISHNAN R, FBRS, Deputy Director & Head, Department of Environmental Biotechnology, Central Leather Research Institute, Adyar, Chennai-600 020, Tamil Nadu (2005)

57. RAI Ashwani Kumar, FRBS, Professor, Department of Botany, Faculty of Science, Banaras Hindu University, Varanasi (2010)

58. RAMTEKE Pramod W, FBRS, Dean of Post-Graduate Studies at Sam Higginbottom Institute of Agriculture, Technology & Sciences (formerly Allahabad Agricultural Institute- Deemed University) Allahabad (2016)

59. RANGAN Latha, FBRS, Professor & Head, Department of Biosciences and Bioengineering, IIT Guwahati, Assam (2020)

60. RANGAPPA K S, FBRS, Prof; Distinguished Professor, University of Mysore, Institution of Excellence, VijnanaBhavan, Mysore (2021)

61. RAO Gangagni, FBRS, Chief Scientist, CSIR-Indian Institute of Chemical Technology, Hyderabad-500 007, Telangana (2019)

62. RAO Venkateswar L, FBRS, Professor, Department of Microbiology, University College of Science, Osmania University, Hyderabad-500 007, Andhra Pradesh (2005)

63. RAVISHANKAR G A, FBRS, Vice President, Life Sciences and Professor of Biotechnology, Dayananda Sagar Institutions, Dr C.D. Sagar Center for Life Sciences and Biotechnology, Bengaluru (2020)

64. REDDY Gopal, FBRS, Professor, Department of Microbiology, Osmania University, Hyderabad-500 007, Andhra Pradesh (2008)

65. REDDY Sudhakara M, FBRS, Professor, Thapar University, Patiala-147 001, Punjab(2014)

66. SARMA Birinchi Kumar, FBRS, Department of Mycology and Plant Pathology, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi (2021)

67. SASTRY Narahari G, FBRS, Director, CSIR-North East Institute of Science and Technology, Jorhat, Assam (2020)

68. SATYANARAYANA T, FBRS, Professor, Department of Microbiology, University of Delhi South Campus, Benito Juarez Road, New Delhi(2004)

69. SAXENA Rajendra K, FBRS, Professor, Department of Microbiology, University of Delhi South Campus, New Delhi (2006)

70. SAXENA Shailendra Kumar, Senior Scientist, CSIR-Centre for Cellular and Molecular Biology, Hyderabad-500 007 (2015)

71. SHARMA Vinay, FBRS, Dean Research and Director, Amity Institute of Biotechnology, Amity University Rajasthan, Jaipur (2019)
72. SHARMA Yogesh Chandra, FBRS, Professor, Department of Chemistry, Indian Institute of Technology (BHU), Varanasi, Uttar Pradesh (2017)
73. SHUKLA Pratyosh, FBRS, Head, Department of Microbiology, Maharshi Dayanand University, Rohtak, Haryana (2018)
74. SIDDIQUE Hifzur R, FBRS, Molecular Cancer Genetics & Translational Research Lab, Aligarh Muslim University, Aligarh (2022)
75. SINGH Durg V, FBRS, Reader, Institute of Life Sciences, Nalco Square, Bhubaneswar-751 023, Orissa (2005)
76. SINGH Harikesh B, FBRS, Scientist & Head, Plant Pathology Laboratory, National Botanical Research Institute, CSIR, Rana Pratap Marg, Lucknow-226 001, Uttar Pradesh (2006)
77. SINGH Ram Sarup, FBRS, Professor, Department of Biotechnology, Punjabi University, Patiala-147 002, Punjab (2012)
78. SINGH Ram Sharan, FBRS, Department of Chemical Engineering, IIT(BHU), Varanasi (2022)
79. SINGH Sanjeev Kumar, FBRS, Professor, Biotechnology Department, Alagappa University, Karaikudi, Tamil Nadu (2018)
80. SINGH Tej P, FBRS, Professor, Department of Biophysics, All India Institute of Medical Sciences, New Delhi (2007)
81. SINGHAL Rekha S, FBRS, Professor, Food and Fermentation Technology Department, Institute of Chemical Technology, Matunga, Mumbai-410 019, Maharashtra (2011)
82. SOPORY Sudhir Kumar, FBRS, SERB Distinguished Fellow, International Centre for Genetic Engineering and Biotechnology, JNU Campus, New Delhi (2020)
83. SUNDAR D, FBRS, DuPont Young Professor, Department of Biochemical Engineering and Biotechnology, Indian Institute of Technology Delhi, New Delhi (2018)
84. SUNDARAY Jitendra Kumar, FBRS, Division of Fish Genetics & Biotechnology, ICAR- Central Institute of Freshwater Aquaculture, Kausalyaganga, Bhubaneswar, Odisha (2021)
85. TAMANG Jyoti Prakash, FBRS, Consultant Fellow and Coordinator (Academic), Sikkim University, 6th Mile, Tadong-734 102, Gangtok, Sikkim (2009)
86. THAKUR Indu S, FBRS, Professor, School of Environmental Science, Jawaharlal Nehru University, New Delhi-110 067 (2005)
87. THALLADA Bhaskar, FBRS, Bio-fuels Division, Indian Institute of Petroleum, Mohanpur, Dehradun-248 005, Uttarakhand (2012)
88. TIWARI Kamla Prasad, FNASc, FBRS, Professor & Head (Retd), Department of Chemistry, University of Allahabad, Allahabad (2005)
89. TIWARI Subhash, C, FBRS, Reader, Department of Forestry, Wild Life & Environmental Sciences, Guru Ghasidas University, Bilaspur (2005)
90. TRIPATHI Anil K, FBRS, Professor, School of Biotechnology, Faculty of Science, Banaras Hindu University, Varanasi (2005)
91. UPADHYAY Siddha Nath, FBRS, Professor & Director, Institute of Technology, Department of Chemical Engineering, Centre of Advanced Study, Institute of Technology, Banaras Hindu University, Varanasi-221 005, Uttar Pradesh (2005)
92. VARMA Anjankumar, FBRS, Polymer Science and Engineering Division, CSIR-National Chemical Laboratory, Dr Homi Bhabha Road, Pune-411 008, Maharashtra; (2011)
93. VEERAMANI H, FBRS, Former Professor, IIT-B; Ex-Director, SIES, Mumbai, Maharashtra (2005)[LATE]
94. VENKATA MOHAN S, FBRS, Scientist, Bio-engineering and Environmental Centre, CSIR-Indian Institute of Chemical Technology, Hyderabad-500 007, Andhra Pradesh (2010)
95. VERMA Rama Shankar, FBRS, Professor, Department of Biotechnology, Indian Institute of Technology, Chennai (2015)
96. VERMA Pradeep, FBRS, Department of Microbiology Central University of Rajasthan, Bandar-sindri Rajasthan, Ajmer (2021)



The Biotech Research Society of India proudly shares a g members among top 2% Scientists in the World as per



Prof. Ashok Pandey
IITR (Biotechnology)



Dr. S. Venkata Mohan
IICT (Biotechnology)



Prof. Munishwar N. Gupta
IITD (Biotechnology)



Prof. Anushree Malik
IITD (Biotechnology)



Prof. Nirupam
IITKGP (Biot



Prof. R. S. Singh
Punjabi University (Biotechnology)



Dr. Hemant Purohit
NEERI (Biotechnology)



Prof. Indu S. Thakur
JNU (Biotechnology)



Prof. Tulasi Satyanarayana
NSIT (Biotechnology)



Dr. K. M. Pa
ARI (Biotech



Prof. Rajendra K. Saxena
University of Delhi (Biotechnology)



Prof. Parmjit S. Panesar
SLIET (Biotechnology)



Dr. Rajeev K. Sukumaran
NIIST (Biotechnology)



Dr. Reeta R. Singhania
IOCL (Biotechnology)



Prof. M. M. G
IITKGP (Biot



Prof. K. K. Pant
IITD (Chemical Engg.)



Prof. Ponnusamy S. Kumar
SSNCE (Chemical Engg.)



Prof. Papita Das
JU (Chemical Engg.)



Prof. Debabrata Das
IITKGP (Energy)



Dr. Thallada
IIP (Ene



Prof. Madhoolika Agrawal
BHU (Environmental Science)



Dr. Sunil Kumar
NEERI (Environmental Science)



Prof. Rekha S. Singhal
ICT (Food Science)



Prof. C. S. Nautiyal
NBRI (Microbiology)

Great news on the listing of BRSI Stanford University research

THE BIOTECH
RESEARCH
SOCIETY, INDIA



Prof. Anjana Mallick
(Biotechnology)



Prof. Uttam C. Banerjee
NIPER (Biotechnology)



Prof. Ramesh C. Kuhad
University of Delhi (Biotechnology)



Prof. Anil Kumar
(Biotechnology)



Prof. Dalijit S. Arora
GNDU (Biotechnology)



Prof. Datta Madamwar
Sardar Patel University (Biotechnology)



Prof. Anil Chhangrekar
(Biotechnology)



Prof. Yogesh C. Sharma
IITBHU (Chemical Engg.)



Prof. V. S. Moholkar
IITG (Chemical Engg.)



Prof. Anil Bhaskar
(Biotechnology)



Prof. V. K. Garg
CUP (Environmental Science)



Prof. Ram Chandra
BBAU (Environmental Science)



Prof. B. M. Bhanage
ICT (Organic Chemistry)



Prof. R. S. Dubey
BHU (Plant Biology & Botany)



More than 20
BRSI scientists
members got
the place in
top 2%



BRSI can bring forth research based solutions - Padma Shri Prof S K Sopory

Sudhir Kumar Sopory or S K Sopory or known by few just as Sopory is an Indian educationist, plant physiologist, scientist and former vice chancellor of Jawaharlal Nehru University, New Delhi. Prof Sopory is an elected Fellow of several major Indian science academies including four major science academies i.e. IAS, INSA and NASI and NAAS and International

‘The World Academy of Sciences’ (TWAS) and is a recipient of many honours, including the 1987 Shanti Swarup Bhatnagar (SSB) Prize, the highest Indian award in the science and technology categories and The Government of India awarded him the India’s fourth highest civilian honour of the Padma Shri, in 2007, for his contributions to science and technology.

Professor Sopory has many notable awards to his name and been member of several national committees of DBT, DST, ICAR, CSIR, UGC, academic bodies of over two dozen universities and institutions, Science and Engineering Research Council of DST; and Council Member of the Indian Academy of Sciences, Bangalore. He served(s) on the Editorial boards of many national/international journals. He was Vice President, INSA (2004-06), Society of Plant Physiology and Biochemistry and Secretary, Plant Tissue Culture Association of India.

Today he has to his credit a whole stress tolerance pathway and many varieties which could stand in harsh salinity conditions. In this way we would grow crops even in the areas like 'The Rann of Kutch' which is a large area of salt marshes where salinity in soil goes upto pH 10.2.

Prof Sopory has been awarded Shanti Swarup Bhatnagar Prize in 1987 work in the field of physiology of plant growth and development for his researches that led to a better understanding of the mode of action of phytochrome, and the possible involvement of calcium as a second messenger in higher plant cells.

Here, we are presenting short interview regarding his affiliation with BRSI.

Q1. How do you feel as a member of governing body of BRSI

The governing body of BRSI is an elected body to guide and take directions and actions with respect to the functioning of the Society. It is collective responsibility. I am privileged to be a member of this august body.

Q2. From how long you are attached to society and why you joined BRSI?

I have been attached to this Society for a long time. Since this society further the cause of research and teaching in the broad area of Biotechnology and Life Sciences, associating myself with it was to get myself educated in the recent work of one's colleagues and young scholars.

Q3. What difference you find between Govt aided societies like INSA, NASI and IASc and BRSI

National academies perform variety of functions and each one of them plays its own role in terms of election of members, in all areas of sciences, publication of their journals, international collaborations, framing policy and guidelines and also educating the Government bodies on various issues etc. BRSI is a society with large membership and is more specifically involved with research and tracking developments in the area of Biotechnology and allied sciences.

Q4. How BRSI is helping peers in achieving their career goals

Through various workshops and conferences, and also by organizing special lectures etc. the society is making aware the young students the new developments in the field as also, through personal interactions, guiding them in their goals.

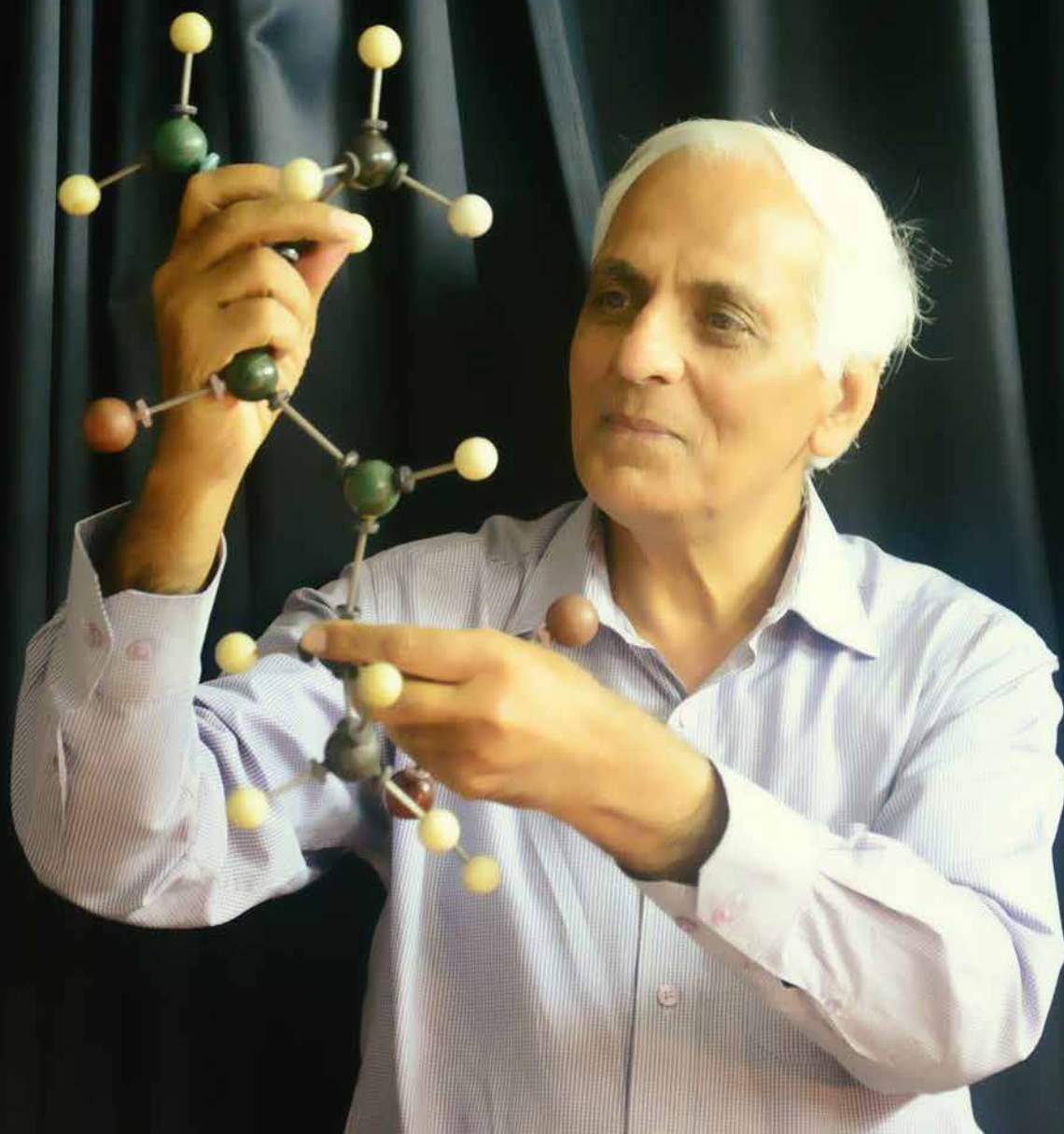
Q5 How do you contribute to society's goal/ what point you consider while making any decision toward societies functioning?

By bringing the contributions that biological research can make in helping achieve the targets laid down in the UN developmental goals. This is being fostered by discussions and developing some collaborative programs within the membership of the society.

Q6. Any suggestions to BRSI members, biotech peers or common public toward promotion of biotech in India.

It is very clear that many of the complex issues of food security, mitigating diseases, production of valuable biotech resources, overcoming impact of climate change etc. can be resolved only through transdisciplinary approach. As BRSI constitutes members from different disciplines and also those who have played leadership role, it can bring forth research based solutions which can be implemented with collaboration and collective thought process. This is in general emphasized by the Society in its meetings and conferences.





I am proud of my association with BRSI from last 20 years - Prof T P Singh

Prof.T.P.Singh is a scientific leader who has made noteworthy contributions in the field of Rational Structure based drug design, Protein Structure biology and X-ray crystallography. He has established the research programmes on protein structure determination and structure-based rational drug design at All India Institute of Medical Sciences, where he leads a vibrant scientific group. He has consistently demonstrated exceptional leadership qualities from the be-

ginning of his career, when the country was still in its infancy in the areas of molecular biology, protein crystallography and drug design.

Prof. Tej P. Singh is currently SERB Distinguished Fellow at the Department of Biophysics, All India Institute of Medical Sciences, New Delhi. He has played an active role in the development of drug design in the fields of Antibacterial therapeutics, Tuberculosis,

Inflammation, Cancer and Gastropathy. The three-dimensional structures of various proteins including lactoperoxidase, peptidoglycan recognition protein, lactoferrin from several species, ribosome inactivating proteins, bifunctional inhibitor proteins from plant seeds and various serine proteases and their inhibitors have been determined by his group. The elaborate structural studies of proteins from several important systems as potential drug targets such as phospholipase A2, cyclooxygenase, lipoxygenase, endothelin receptor, endothelin converting enzyme, breast cancer regression proteins and matrix metallo-somal proteins as well as their complexes with natural and designed synthetic ligands have been carried out.

Prof Singh is one of most outstanding scientist in India and contributed significantly for the growth of science and society through his dedicated efforts. He is Fellow of the Biotech Research Society, India, Third World Academy of Sciences, Indian National Science Academy, National Academy of Sciences, Indian Academy of Sciences, Alexander von Humboldt Foundation. Prof Singh has been decorated with a large number of awards and honors which cannot be described here in few lines.

Here, we are presenting short interview regarding his affiliation with BRSI from the inception of the society.

Q1. How do you feel as a member of governing body of BRSI

BRSI is one of the most vibrant, active and dynamic societies in India. It happily caters to the domestic and global audience through nicely organized national conferences/workshops, international conferences, global lecture series and various other actions. I feel honoured to be a member of the governing body of such a society.

Q2. From how long you are attached to society and why you joined BRSI?

Since 2005, I am associated with BRSI when I was first invited to give a talk in in the annual international conference which was held in Trivandrum. Thereafter,

I became a fellow of the society and subsequently, the President of the society. I am proud of my association with BRSI.

Q3. What difference you find between Govt aided societies like INSA, NASI and IASc and BRSI

Other academies such as INSA, IASc, and NASI are mainly involved in recognizing the scientists and in arranging annual and half yearly meetings and conferences. INSA represent India as an official academy for international activities with the academies of other countries in the world. BRSI contributes far more significantly for the promotion of the fields of biotechnology through its numerous programmes.

Q4. How BRSI is helping peers in achieving their career goals

BRSI provides a lot of opportunities to its members and other participants for useful networking and collaborations. These are important factors for achieving objectives in careers

Q5 How do you contribute to society's goal/ what point you consider while making any decision toward societies functioning?

The governing body of BRSI through its meetings and deliberations regularly updates rules and guidelines for improving the functioning for enhancing the efficiency of the actions in the interest of science and society. BRSI is a liberal and promotional body for science education and research.

Q6. Any suggestions to BRSI members, biotech peers or common public toward promotion of biotech in India.

I greatly appreciate the work ethics of BRSI and the programmes which are being carried out by the office bearers and mentor of the society in a highly dedicated manner. As a member of the society, I thank them for working so tirelessly and selflessly for the good cause of the promotion of education and research in various fields of biotechnology.





BRSI certainly help peers to achieve their academic goals - Dr. Datta Madamwar

Professor Datta Madamwar currently Scientific Advisor, Charotar University of Science and Technology, Changa, Gujarat, India and former UGC BSR Faculty Fellow at Post Graduate Department of Biosciences, Sardar Patel University, Vallabh Vidyanagar, Gujarat, India

He has a vast research experience as a postdoctoral fellow at TIFR, Mumbai, Universitat Frankfurt, Germany, Universitat Konstanz, Germany, and also served

at BITS, Pilani. Professor Madamwar is a Microbial Biotechnologist with diverse research interest. His current main focus is on Non-aqueous Enzymology, Industrial Liquid Waste Management and Cyanobacterial Phybiliproteins. He has done significant contribution in developing different types of bioreactors for the treatment of industrial waste water. His major work involves molecular phylogenetic approach to determine both cultivable and uncultivable bacterial diversity and preparation of metagenomic library. Dr. Madamwar has provided a concept for the enzyme catalysis in apolar organic solvents without the loss of enzyme activity. He has reported various novel, efficient and rapid methods of purification of phycobiliproteins.

Here, we are presenting short interview regarding his affiliation with BRSI from the inception of the society.

Q1. How do you feel as a member of governing body of BRSI

I have been a Member of Governing Body of BRSI almost from the beginning. I feel highly privileged being associated with BRSI and involved in various policy framework preparation.

Q2. From how long you are attached to society and why you joined BRSI?

I have been associated with BRSI from its inception since 2003. This is one of the best academic bodies and brought large number of biotechnologist not only from the across India even from other countries. There was a strong need to brings various researchers on a single platform. Perhaps the only society provide opportunity to every researcher of biotechnology to represent own research.

Q3. What difference you find between Govt aided societies like INSA, NASI and IASc and BRSI

Well there is lots of difference between BRSI and other Government funded societies. It is not easy to become a Fellow or Member of such society like INSA, NASI etc. Perhaps only academic achievement is not counted and there are other criteria. BRSI is quite fare.

Q4. How BRSI is helping peers in achieving their career goals

BRSI certainly help peers to achieve their academic goals by providing lots of information through regularly published News Letters. Moreover through international conferences provide platform to interact with others.

Q5 How do you contribute to society's goal/ what point you consider while making any decision toward societies functioning?

I contribute to society significantly by involving in majority activities of BRSI. I was party in framing rules for smooth running of society. I was also a President of BRSI for two years. I made it point to encourage our research students to participate in the conference and get involved in various program of BRSI including participation in Global Lectures. Third BRSI International Conference was organised by me at Sardar Patel University, Vallabh Vidyanagar, Gujarat in 2006.

Q6. Any suggestions to BRSI members, biotech peers or common public toward promotion of biotech in India.

There is a strong need that we work together. This is the time of collaborative research. We all should encourage our research students to contribute toward the development of BRSI.





Compared to other societies in India, BRSI is more closely associated with PG and research students - Prof P Gunasekran

Prof. P. Gunasekaran, former Professor and Head of School of Biological Sciences, Madurai Kamaraj University Madurai, served as Vice Chancellor of VIT Bhopal University, Vice-Chancellor of Thiruvalluvar University, Vellore and Pro-Vice Chancellor, VIT University, Chennai. He had his Ph.D. degree from Haryana Agricultural University, D.Sc. degree from Madurai Kamaraj University and Post-doctoral experience from CNRS, France and MIT, USA. He has published over 175 research articles and 28 book chapters. He served as the President of the Biotech Research Soci-

ety, India and the President of Association of Microbiologists of India. He is the recipient of Tamil Nadu Scientist award, Alagappa Centenary Excellence Award, Louis Pasteur Award and Lifetime time achievement award from the Indian Association of Applied Microbiologists and Biotech Research Society of India. He is the recipient of Outstanding Service Award from the International Board of the American Society for Microbiology, One Time Grant Award from UGC, Prof SR Vyas Award and Louis Pasteur Award from AMI, Indian Science Congress-Madurai Kamaraj Univer-

sity Eminent Scientist Award, Tamil Nadu Scientist Award and American Society of Microbiology (ASM) International Professorship. He is the Fellow of Tamil Nadu Academy of Sciences, National Academy of Biological Sciences, Association of Microbiologists of India, and the Biotech Research Society, India.

Here, we are presenting short interview regarding his affiliation with BRSI from the inception of the society.

Q1. How do you feel as a member of governing body of BRSI

I am privileged to be a member of Board of Governors from the establishment of the BRSI.

Q2. From how long you are attached to society and why you joined BRSI?

Since the inception of the BRSI, I am associated with the Society as a member of Board of Governor of BRSI. Under the leadership of Prof Dr Ashok Pandey, 13 of us joined as founder members to BRSI with the aim to disseminate biotechnology knowledge to the scientific community and to dedicate to the progress of Biotechnology research in India.

Q3. What difference you find between Govt aided societies like INSA, NASI and IASc and BRSI

Compared to other societies in India, BRSI is more closely associated with PG and research students to support their needs by providing them hands-on training and extending the research facilities. It regularly publishes news letter with the current research contributions and breakthroughs. Also conduct workshop parallel mini conferences. In addition to regular annual conventions, BRSI conduct pre and post conferences at different location by providing partial financial support.

Q4. How BRSI is helping peers in achieving their career goals

BRSI provides supports to peers for conducting conferences/workshops and exchange of students between their laboratories. It immensely supports the peers for publishing their conference presentation to publish in

refereed journals by inviting the publishers as part of the conferences. BRSI recognizes significant contributions of scientists with several scientific awards and life time achievement awards in addition to recognizing the scientific achievers as Fellow of the BRSI like in other societies fellowships and felicitate them at the annual conference.

Q5 How do you contribute to society's goal/ what point you consider while making any decision toward societies functioning?

I am actively involved in contributing the goal of the BRSI by attending all the annual conventions and also serving as peer in poster evaluation. Conducted several hands-on training workshops for imparting research skills to the biotech students. Also provided the laboratory space and facilities for the students from other institutions. I am also regularly serving as member of the screening cum evaluation of applications for the scientific awards provided yearly by the society. I am serving as a member in Board of Governors from the beginning of the society and also served as President of BRSI for consecutively twice from 2011-2014. I was the organizing secretary of the one of the BRSI annual convention and Indo-Italian international conference on Genomic Science during the November 2010 at Madurai Kamaraj University.

Q6. Any suggestions to BRSI members, biotech peers or common public toward promotion of biotech in India.

I request BRSI members and biotech peers to conduct frequent meeting to create awareness to public with respect to the contribution of biotech discipline for the welfare of the society. Field level demonstration can be conducted to impress upon the public the contribution of the biotechnology in real life. Also request the peers to begin several satellite centers of Biotechnology at different locations all over the country and make the public to realize the connectivity of the biotechnology to the societal improvement.



Contact:

Details about the Society can be found at www.brsi.in,
or write to Central Office Executive, The Biotech Research Society,
Microbial Processes and Technology Division, CSIR-NIIST, Industrial
Estate PO. Pappanamcode, Thiruvananthapuram 695 019, Kerala

Email: **brsi.india@gmail.com**

or

binodkannur@gmail.com

Contact BRSI Counter
at the Registration Desk



The Biotech Research Society, India
Central Office, CSIR- National Institute for Interdisciplinary
Science & Technology, Industrial Estate P.O
Trivandrum- 695019, Kerala



DELIVERING EXCELLENCE TO THE WORLD OF SCIENCE & TECHNOLOGY

About us

We serve the fraternities of science & technology by organizing technical events, providing marketing services, technical consultancy and customer lead generation in various scientific fields for over a decade.

- Pharmaceuticals
- Biotechnology
- Agriculture
- Environment
- Diagnostics
- Clinical Trials

Our Services



Lead Generation

Instruments, Products, and Services - Promotion to Scientific Communities & Lead Generation



Conference Management

Website, Registration, Abstract Management, Exhibition, Event Promotion, Designing & Printing, Conference Aids



Regulatory Affairs

Dossier Preparation, CTD/eCTD Submission, Lifecycle Management, Regulatory Strategies

Contact us



9041725050
8289015050



s.kanwar@glostem.com
f.zainab@glostem.com



www.glostem.in

CAN YOU BELIEVE WHAT YOU READ?

**Biotech
Express**

Better. Believe it!

With fake and misleading news leaving most Biotechnology people confused about even the basic facts, Biotech Express keeps it real. Whether in print or digital people trust it to be expertly researched written and fact checked.

Bring real matters. That's a fact.

Believe Biotech | Believe Biotech Express