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BIOTECH PRESS

A portrait of Prof N K Ganguly, an elderly man with white hair, wearing a dark blue blazer over a striped shirt and light-colored trousers. He is standing with his hands behind his back, looking slightly to the left. The background is a mix of orange, white, and green wavy shapes.

INTERVIEW

Prof N K Ganguly
Padma Bhushan

OPINIONS

The pain and
pleasure of
reviewing research

OBITUARY

Dr. A. P. J. Abdul
Kalam lives on...

GUEST ARTICLE

Bioplastic - An
approachable
way to manage
white pollution



Interviewed Biography

PROF N K GANGULY

DATE OF BIRTH: November 11, 1941

Padma Bhushan 2008

In 2015, Prof. Ganguly has been selected for the award of Helmholtz International Fellow by Helmholtz Center for Infection Research, Germany for significant contribution to the field of infectious diseases. He has been awarded distinguished scientific award from Yakult, Japan in 2016. He has received 119 Awards, including 8 International and 111 National Awards. He has been honoured with the prestigious Padma Bhushan Award by Her Excellency, Mrs. Pratibha Patil, the 12th President of India on 26th January, 2008 in the field of "Medicine".



BT people



Eminent POSITIONS HELD

Professor & Head,	April, 1995 to September, 1997	PGIMER, Chandigarh Department of Experimental Medicine & Biotechnology
Director-General	March 12, 1998 to Nov. 2007	Indian Council of Medical Research, Ansari Nagar, New Delhi
Honorary Fellow and Adjunct Professor	2005	Boston University, USA
Adjunct Professor of Environmental Health	October, 2007	University of Minnesota, School of Public Health, USA
General President (Elect)	2004-2005	Indian Science Congress Association
President	March 25, 2000 to March 24, 2002	National Academy of Medical Sciences (India), New Delhi
Honorary Professor	July, 2005	Special Centre for Molecular Medicine (SCMM), JawaharlalNehruUniversity, New Delhi
Visiting Professor	September, 1998	Dr.B.R.Ambedkar Centre for Biomedical Research, Delhi
Honorary Professor	January, 2000 to November, 2004	Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore
Honorary Consultant/ Adviser	October 14, 2004	Armed Forces Medical Services Raksha Mantralaya
Honoray Advisory	February 2008	Center for Stem Cells Sciences, Hyderabad
Eminent External Expert	March 2008	Assessment Committee for the Area of Biosciences and Biotechnology, Recruitment & Assessment Board, CSIR, New Delhi.
Distinguished Member	February 2008	Indraprastha Cancer Society & Research Centre, Rajiv Gandhi Cancer Institute and Research Centre, New Delhi
Honoray Professor	June 2008	Clinical Research, Institute of Liver & Billiary Sciences, New Delhi
Distinguished Biotechnology Research Fellow	4.12.2007-23.07.2009	Department of Biotechnology Govt. of India

ADMINISTRATIVE EXPERIENCE

Director General,

Indian Council of Medical Research, Ansari Nagar, New Delhi;

Director-in-Charge,

National Institute of Biologicals, Noida;

Acting Director,

Post Graduate Institute of Medical Education and Research, Chandigarh;

President,

National Academy of Medical Sciences, New Delhi;

Head,

Multidisciplinary Department of Experimental Medicine, PGIMER, 11 Years;

Head,

Deptt. of Experimental Medicine & Biotechnology, PGIMER, Chandigarh (staretd at that time);

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Prof N K Ganguly receiving Biospectrum Lifetime achievement award from Biocon MD Kiran Mazumdar Shaw.

Biotech Express Magazine Editorial would like to thank Prof N K Ganguly for sharing wonderful experiences for the readers of Biosciences field. On this Independence day we feel very grateful to publish Interview of India's most prestigious Bioscience Personality who not only gained lot of attention in India but leave his prints on International Scientific community also.

Prof N K Ganguly may be called as Vaccine man of India as he helped to eradicate many infectious disease by his several research outputs and policies toward better treatment.

You may find about him on worldwideweb or somewhere else but the talk we are giving here is nowhere, we became very specific while designed questions for readers of Biotech Express Magazine.

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Sir, It is confusing to see your name with several designations; however, for the young researchers' clarity, may I please ask you about your current position?

Yes, you may be correct and to highlight a few, I am Visiting Professor of Eminence & Co-Ordinator, Policy Centre For Biomedical Research, in Translational Health Science & Technology Institute, Department Of Biotechnology, India & Honorary Senior Research Professor (Clinical Research) in Institute of Liver & Biliary Sciences, New Delhi, India & Professor, The Ganga Ram Institute of Postgraduate Medical Education and Research, Sir Ganga Ram Hospital, New Delhi. Also, I am the chairman of Immunology Foundation and President of Yakult Probiotic Science foundation. Among the societies, I am currently the president of Translation and Health Science. In past, I have been the president of many societies.

Immunology Foundation is a registered non-profit Trust created from the savings of the Congress. Its charter is to promote the development of Immunology and Allied Sciences by initiatives and inputs in activities currently limited by ready availability of resources. The Foundation would provide support for short term training of investigators and for inter-laboratory exchange programmes. It would sponsor workshops and seminars on advancing frontiers of knowledge. It would promote Academia-Industry linkage for materialization of Products from research leads. The Foundation would give Awards to recognize outstanding contributions by Indian scientists in Immunology and related sciences. It would seek to create an information network and encourage co-operation between better endowed laboratories having methodologies, reagents and cell lines for sharing with others in Universities and peripheral research centers which are in need of such aids. The Foundation will also provide subsidies to enable Indian scientists to present their work and participate in important National and International meetings.

Yakult India Microbiota and Probiotic Science Foundation was registered as a society on 9th November 2011 by a group of scientists under the Societies Registration Act XX1 of 1860. The objective of the Foundation is to provide a thrust to the science of Gut Microbiota and Probiotics in the country, channelize International knowledge and expertise in the field and promote collaborative research in the development of probiotics as well as foster and maintain research links with scientists of similar interest.

To meet its objective the Foundation:

Organize an Annual International Symposium for providing a common scientific platform for basic scientists and clinicians to share and exchange knowledge and views and delve into newer areas of research.

Webcast the symposium for wider viewership.

Publish the proceedings of the symposium as a book for distribution to Libraries and healthcare professionals across the country.

Publish an annual Newsletter that will capture the latest scientific developments in the area.

Promote research in the area and felicitate young talent by through the Young Investigator Award.

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PUBLICATIONS

1. Work cited in books	7
2. Paper	
International	452
National	313
Total	765
3. MD/PhD Thesis Supervised/Co-supervised	130

SUBJECT OF SPECIALISATION

Infectious Disease

Immunology

Biotechnology

RESEARCH/TEACHING EXPERIENCE

40 years (including 13 years as Assistant Professor/Associate Professor, 12 years as Professor & Head).

POST DOCTORAL FELLOWSHIPS

1. Colombo Plan Fellowship in Immunology to Japan 1972.
2. Commonwealth Fellowship in Immunology, UK 1976.

Sir, what is your academic/Professional background ?

I started my career at PGI, Chandigarh where I joined as a research student and became the director later on, spending a major portion of my career over there. Then, I was director of NII, followed by Director of National Institute of Biologicals (NIB, Noida). NIB was established when I was the DG (Director General), ICMR. Later I was the president of JIPMER and was Honorary and adjunct professor at many places in India and abroad.

Sir, why you chose research as a career? what motivated you to go in academic Research ?

I started my research career because I like to do research, I was not influenced by anyone but particularly wanted to do research. Recalling that I published my first research paper in 1969 and then I might have published more than 750 research papers so far.

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AWARDS/HONOURS

INTERNATIONAL

INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES - Norman Alpert Award, 2004; **INTERNATIONAL SPIRIT OF LIFE FOUNDATION, USA** - Annual Award, 2004; **SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF MINNESOTA, MINNEAPOLIS, USA** - Gaylord Anderson Memorial Lecture, 2006; **INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES** - Medal of Merit, 2007; **DEPARTMENT OF BIOTECHNOLOGY AND US DEPARTMENT OF HEALTH & HUMAN SERVICES** - Rama-Robbins Lecture 2008; **HELMHOLTZ CENTER FOR INFECTION RESEARCH, GERMANY**- Helmholtz International Fellow Award 2015 - Distinguished Scientific Award by Yakult Japan (Year 2016); etc.

NATIONAL

RANBAXY RESEARCH AWARDS- Ranbaxy Research Awards in the field of Medical Sciences Applied Research, 1996; **INDIAN COUNCIL OF MEDICAL RESEARCH AWARDS** - Shakuntala Amir Chand Award; Narayana Rao Award in Microbiology; M O T Iyengar Award in Malaria; B K Aikat Oration Award in Tropical Medicine; Basanti Devi Amir Chand Prize for 1996; **NATIONAL ACADEMY OF MEDICAL SCIENCES** - R.M.Kasliwal Award in Amoebiasis; S.S.Misra Merit Award in Giardiasis; Sir Shri Ram Memorial Oration - 1996-97; Academy Oration, 2002; **FEDERATION OF INDIAN CHAMBERS OF COMMERCE AND INDUSTRY**- FICCI Awards 1998-99 : Life Sciences including Agriculture; **UNIVERSITY GRANTS COMMISSION**- National Lecturership 1985-86; **INDIAN SCIENCE CONGRESS ASSOCIATION** - Platinum Jubilee Oration, Jaipur - 1994; 2. B.C.Guha Memorial Lecture, 1999-2000; Excellence in Science and Technology, 2006; **INDIAN SOCIETY OF IMMUNOLOGY**- NII Gold Medal Senior Oration Award - 1993; **INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE** - Prof M N Saha Memorial Lecture for 1996; **THE ASIATIC SOCIETY** - Barclay Memorial Medal, 1999; **INDIAN PHARMACOLOGICAL SOCIETY** - Prof.Naranjan S.Dhalla Award for Lifetime Achievement in Cardiovascular Pharmacology; **BOSE INSTITUTE, CALCUTTA** - J.C. Bose Oration, 1998; **JAWAHARLAL NEHRU CENTRE FOR ADVANCED SCIENTIFIC RESEARCH, BANGALORE** - Prof.V.Ramalingaswami Memorial Lecture, 2006; **INDIAN INSTITUTE OF CHEMICAL BIOLOGY, CALCUTTA**- 12th J.C. Ray Oration, 1999; **INSTITUTE OF NUCLEAR MEDICINE & ALLIED SCIENCES, NEW DELHI** - Brig. S.K.Mazumdar Memorial Trust; **NATIONAL INSTITUTE OF IMMUNOLOGY, NEW DELHI** - Prof.V.Ramalingaswami Memorial Lecture, 2005; **BIO-SPECTRUM**- BioSpectrum Life Time Achievement Award in Biotechnology, 2005; **NATIONAL INSTITUTE FOR PLANT GENOME RESEARCH** - Prof.B.K.Bachhawat Memorial Lecture, 2006; **AWARD BY PRESIDENT OF INDIA**- Padma Bhushan Award, 2007 (Medicine); **INDIAN ASSOCIATION OF MEDICAL MICROBIOLOGISTS** - Dr. U.C. Chaturvedi IAMM Life Time Achievement Award 2007; **EMINENT SCIENTIST AWARD** - Eminent Scientist Award by Forum for Popularization of Science and Culture, Chandigarh (Punjab) (2008); **COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH (CSIR)**- Distinguished Champion - CSIR@70 Award, 2012; **NATIONAL DIARY RESEARCH INSTITUTE, KARNAL** Dr. D Sundaresan Memorial Lecture Award on 11th February 2015 at NDRI, Karnal: Topic of Lecture: Probiotics and Vaccine; etc.



Sir, what are the research areas you have covered in your long work and why you chose only these?

I chose my research area very carefully and chose to work on diarrhoeal and enteric diseases. Diarrhoea is large disease and affect millions of people worldwide, so I thought to focus on solving big problems with direct applications. Similarly, second major area was cardiovascular diseases mainly Rheumatoid Arthritis and then I spent some time in research in Epidemiology, Pathogenesis, pathophysiology of some other diseases like tropical diseases and many more things came out.

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FELLOWSHIPS

INTERNATIONAL

Royal College of Pathologists, London.
 Royal School of Tropical Medicine, London.
 International Academy of Cardiovascular Sciences,
 Canada
 Third World Academy of Sciences, Italy
 International Medical Sciences Academy,
 New Delhi
 Imperial College Faculty of Medicine, London

NATIONAL

Indian National Science Academy, New Delhi.
 Indian Academy of Sciences, Bangalore.
 National Academy of Medical Sciences, New Delhi.
 National Academy of Science, Allahabad.
 Indian School of Applied Immunology & Allergy.
 Indian Society for Parasitology.
 Punjab Science Academy, Patiala.
 Distinguished Fellow, Institute of Hospital
 Engineering,
 Chandigarh.

MEMBERSHIPS

INTERNATIONAL

Member of British Association of Study of Liver, The New York Academy of Sciences, USA; International Association of Adaptive Medicine, Canada; American Society of Microbiology; Executive Committee of International Society for Heart Research; Management Board, International Medical Sciences Academy, New Delhi etc.

NATIONAL

Member of Guha Research Committee; Life Member, Indian Association of Immunologists; Life and Founder Member, Indian Society of Digestive Diseases; Life and Founder Member, Indian Society of Vaccinology & Immunobiology; Life Member, Indian Association of Parasitologists; Life

Sir, how the transition from MBBS TO RESEARCH took place?

As I said, right from the beginning, I wanted to do research. That was one of the things which became my passion. On professional front, I did a transit across many research areas. I started as a microbiology researcher and then got into immunological research. And as you said, these Transitions did add new dimensions to the Indian research scenario.

I set up the Biotechnology Department at PGI Chandigarh. At that time, it was only one of the two biotech Departments in India, the other set up by Prof Indira Nath. It was almost the same time when DBT (Department of Biotechnology, Govt. of India) was established in our country.

Also among many of the new things introduced by me were Flow Cytometry and free radical biological research in India.

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Sir, what were your experiences and achievements as DG, ICMR?

Among the policies which I helped frame, the first one was to improve the infrastructure around the ICMR, i.e. to strengthen the ICMR network. On my joining, the budget of ICMR was approximately 29 crore rupees but when I left, it was almost 1000 crore per year. The money was spent wisely, to improve infrastructure at ICMR institutes. Every ICMR institute got a new building, modernization of lab infrastructure was done.

Several new buildings came up during my tenure as DG ICMR which included National Malaria Research Centre, Institute of Cytopathology and Centre for Molecular medicine to name a few. National Institute of Epidemiology at Chennai, National Aids Research Institute (NARI) at Pune and Microbiology containment facility BSL III and BSL IV labs came up.

Also, MSc courses were introduced at ICMR institutes.

We became a major funding agency for research in India, especially for research in Tuberculosis, Leprosy, Vector Biology, Epidemiology and others

member of the Association for the Promotion of DNA fingerprinting and other DNA Technologies; Member, Prof R C Mehrotra Foundation, Delhi; Council Member, National Academy of Science, Bangalore; Council Member, National Academy of Science, Allahabad; President (Biological Section), National Academy of Science, Allahabad; Founder Member, Indian National Academy of Stress Sciences, New Delhi; Member, Life Sciences Research Board, DRDO, New Delhi; Council Member, Indian National Science Academy, New Delhi; Member, Advisory Board, Genome Foundation, Hyderabad; Member of Sub group of Chief Minister's Advisory Council, Rajasthan etc.

OFFICE BEARER

PRESIDENT IN INTERNATIONAL ORGANISATIONS

President, International Lancefield Society for Streptococcal Diseases; President, International Heart Research Society (Indian Chapter); President, Academy of Cardiovascular Sciences (Indian Chapter); President Asian Society of Diarrhoeal Disease and Nutrition; Vice President, International Society of Adaptive Medicine; Council Member, Federation of Immunological Societies of Asia-Oceania (FIMSA) for 2000-2003; President, Asian Institute of Public Health, Bhubaneswar, Orissa etc.

PRESIDENT IN NATIONAL ORGANIZATIONS

General President, Indian Science Congress Association, 2004-05; President, National Academy of Medical Sciences, New Delhi,

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2000; President Indian Immunology Society, 1996-97; President, Indian Society of Parasitology, 1997; President, The Indian College of Allergy and Applied Immunology, Delhi; President, Immunology Foundation; President, Indian Society of Medical Microbiology; Vice President, Indian Society of Parasitology; Vice President, Free Radical Society of India, Bose Institute, Calcutta; Ex-Council Member of Indian Association of Medical Microbiologists; Council Member, Research Forum for Digestive System, Indian Association of Gastroenterology Digestive Disease Foundation; President, Jawaharlal Institute of Post Graduate Medical Education and Research, Puducherry; Vice-President, Governing Body of Central Council for Research in Ayurveda & Siddha, Department of AYUSH, Ministry of Health & Family Welfare etc.

AS CHAIRPERSON

WHO Scientific Working Group on Criteria for Setting Health Research Priorities, WHO SEARO, New Delhi; Twenty-fifth session of the WHO South-East Asia Advisory Committee on Health Research; Twenty-seventh session of the WHO South-East Asia Advisory Committee on Health Research (WHO/SEA/ACHR); Co-Chairman, Global Alliance for Vaccines and Immunization (GAVI); Vice-Chairperson, Joint Coordinating Board, WHO, Geneva, Switzerland; Co-Chairman, Programme Board, Bill & Melinda Gates Foundation's India AIDS Initiative.

AS COUNCIL/BOARD MEMBER

Member, Joint Coordinating Board (JCB) for Special Programme for Research and Training in Tropical Diseases (TDR), WHO, Geneva; Co-opted Member of the Scientific and Technical Advisory Committee (STAC) of WHO, Geneva; Member, Foundation Council, Global Forum for Health Research, Geneva; Member, WHO South-East Asia Advisory Committee on Health Research (SEA/ACHR); Member, Selection Council, International Health Research Awards for Developing Countries, WHO, Geneva; Member, UNAIDS Vaccine Advisory Committee;

Sir, how India got benefit on International platform in your leadership?

Internationally, we made major collaborations at various places. We improved our review system (rating) with NIH, RO1 grant which were very few at that time were upgraded to more than 180-190. We made a strong network to help India control HIV and a large centre of excellence in TB research was set up with NIH. Major Surveillance networks came up because of our agreements. These agreements were then extended to Environmental research on indoor pollution and other environmental hazards such as industrial pollution.

We made also several policies on Childlabour, policies on Mobile towers, guidelines on IVF(Surrogacy) were prepared which were not there at that time.

Some of the Boards I chaired brought up huge fundings through Indo German collaboration. I was in the Grand India Challenge (40 million dollars) and was on Board of Canadian Grant committee which gave me significant experiences for betterment of Indian research.

BT people



Sir, How the research you performed could be beneficial for common man? What are the outputs of your diversified research?

For Diarrhoea apart from ORS major central intervention came from my work like regulating Ca_{2+} , preventing diarrhoea by regulating inflammation to minimize malabsorption, so from my research major intervention could be designed for Diarrhoea.

The second thing was Common mechanism for vaccine design in Diarrhoea.

In Rheumatoid Arthritis before my work, it was occurring several time a year in Children so the only thing is that you have to give Penicillin shot to control but you cannot give the antibiotic to 25% of population of India, so my work led to identify that 0.3% of population who gets infection because they are more likely to have Rheumatoid Arthritis using genetic markers.

Also, I describes a model system of Rheumatoid Arthritis in Rhesus monkey. It enabled people to work on model system to find underlying mechanism of the pathogenesis of this disease.

Member, Proto-board and Working Group of World Bank; Member, Board of Trustees, International Centre for Diarrhoeal Diseases Research, Bangladesh (ICDDR, B); Member, International Advisory Committee, Vaccine Research Centre, National Institutes of Health, Maryland, USA; National Advisory Council, International Centre for Research on Women (ICRW), Delhi; Drugs for Neglected Diseases (DNDi) Core Group; UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR) Scientific and Technical Advisory Committee (STAC) Member, International Advisory Board, International Clinical Trials Register Platform (ICTRP); Member, FP6 – HIV/AIDS, European Commission, Belgium; Member, Product Development Committee, Cholera Vaccine Initiative – CHOI, The International Vaccine Institute, Seoul, Korea; Member, Special Emphasis Panels to review Clinical Trial Unit applications, Units for HIV/AIDS Clinical Trial Networks, National Institute of Allergy and Infectious Diseases (NIAID), Bethesda, USA; Member, Fogarty Training Advisory Committee, Brown-Tufts Fogarty AIDS International Research and Training Program, USA; Member, Scientific Board, University of Toronto Joint Centre for Bioethics, Canada; Executive Member, ISAM, Moscow; Member, External International Advisory Committee, UCLA's Global Health Training Program, Los Angeles; Member, Committee on Achieving Sustainable Global Capacity for Surveillance and Response to Emerging Diseases of Zoonotic Origin, Institute of Medicine of the National Academies, Washington; Member, Advisory Board of EATRIS and provide advice regarding the design of

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the EATRIS Infrastructure, Germany; Member, Expert Working Group on R&D Financing, WHO (November, 2008); Member, Global Antibiotic Resistance Partnership (GARP) International Advisory Group, Resources for the Future, Washington; Member, Global Advisory Committee on Health Research, WHO; Member, Project Advisory Group on Childhood Disease Management and Prevention, Global Health Strategies and the Johns Hopkins School of Public Health; Member, Advisory Board, USA-India Chamber of Commerce (USAIC), MA USA; Member of the Board of Trustees, The INCLIN Trust International; Member Advisory Committee to the Director's Global Work Group at CDC, Atlanta, USA, 2015; Member, Scientific Advisory Board of LEISHVAC2020.

MEMBER, GOVERNING BODIES

1. Post Graduate Institute of Medical Education & Research, Chandigarh.
2. Centre for DNA Fingerprinting and Diagnostics, Hyderabad.
3. National Institute of Immunology, New Delhi.
4. Dr.B.R.Ambedkar Centre for Biomedical Research, New Delhi (for 3 years).
5. National Institute of Health and Family Welfare, New Delhi.
6. National Brain Research Centre, New Delhi.
7. Governing Council, International Institute for Population Sciences, Mumbai.
8. Indian Institute of Diabetes, Thiruvananthapuram.
9. Member, National Dope Testing Laboratory, Ministry of Youth Affairs and Sports, Department of Sports (10th September, 2008 for two years)
10. Member, Governing Body for the International Cancer Genome Project, Department of Biotechnology (10th October, 2008 for a period of two years)

Sir, what are the milestones of your research? What discoveries you have made so far in the field of Biotechnology?

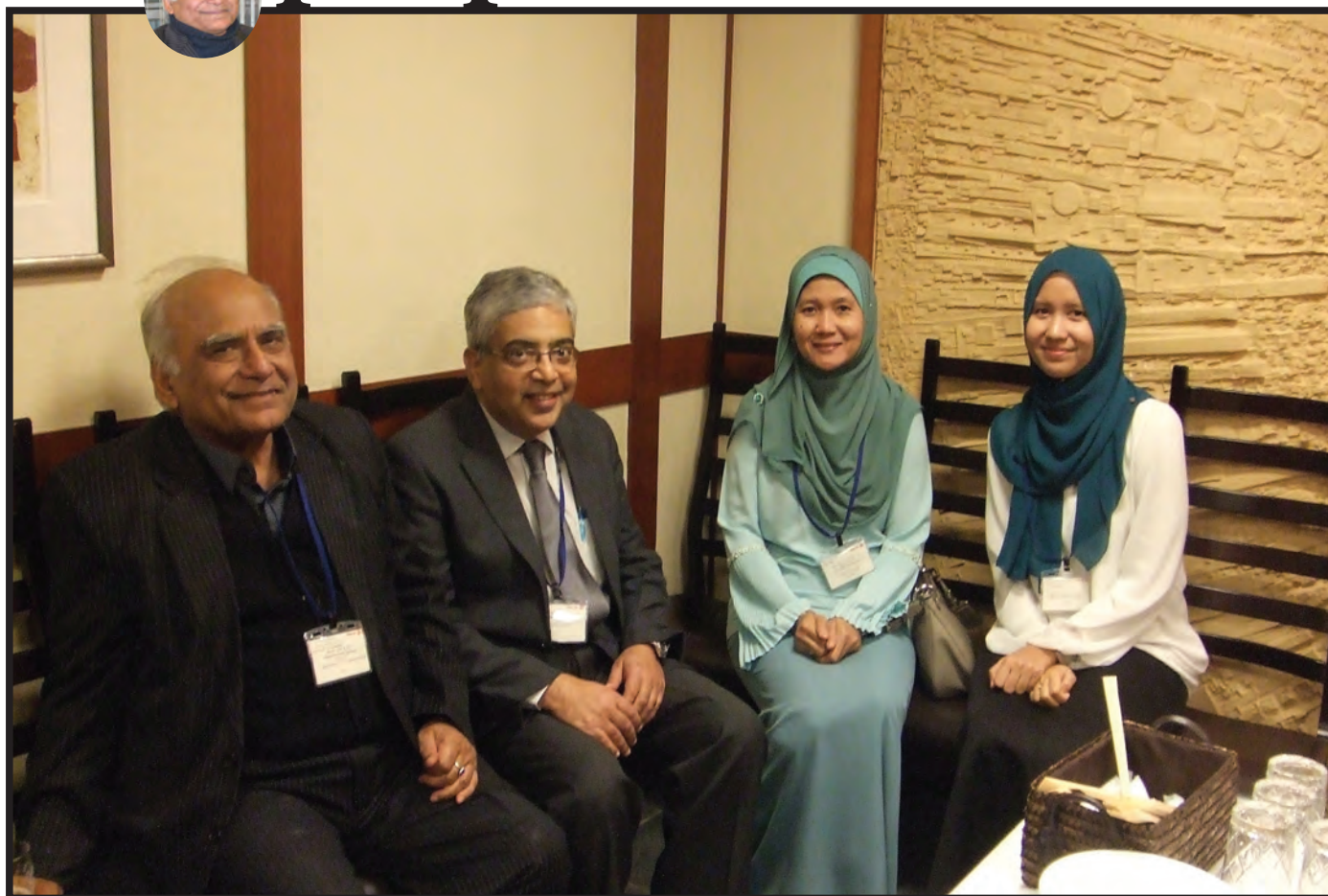
I didn't discovered but what I profound or what new things came out from my research was that I described Common mechanism toward pathogenesis that helped in designing intervention to prevent Diarrhoea.

I described Genetics susceptibility factors for Rheumatoid Arthritis which were not known before.

Sir, how you managed to get funds for your research?

As you go in Science there is always a shortage of funds but I never felt the scarcity. I did what I wanted to do and became successful everytime, I think. The point is when you are good in work you get grants whatever required.

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EDITORIAL BOARD

SCIENTIFIC EXPERT FOR JOURNALS

International Journal of Diarrhoeal Diseases & Research; Molecular and Cellular Biochemistry; The Journal of Immunology; Current Science; Indian Journal of Medical Research; Indian Journal of Pathology Microbiology; Indian Journal of Malariology; Biosciences; Indian Journal of Experimental Biology; National Medical Journal of India; Indian Journal of Biochemistry and Bio-

physics

Chairman, Editorial Board,

Indian Journal of Medical Research (ICMR), and ICMR Bulletin.

Member Editorial Board

Indian Journal of Experimental Biology (1st January 1995 - 1st January 1998); Editorial Board, Indian Heart Journal; Editorial Board, National Academy of Sciences, News Letters, Allahabad; Member, Editorial Board, Molecular and Cellular Biochemistry; Member, International Advisory Board of Journal of Parasitic Diseases;

Member, Advisory Board to the Editor of the Indian Journal of Medical Microbiology; Member, Editorial Board, Quarterly Journal, Proceedings of the National Academy of Sciences, India, (Section B - Biological Sciences) for the years 1999 and 2000; Member, Editorial Board, Journal of Medicinal and Aromatic Plant Sciences (JMAPS); Member, Editorial Advisory Board, Quarterly Journal entitled "Health and Population-Perspectives and Issues", National Institute of Health & Family Welfare, New Delhi; Member, Health Editorial Board, The FACTS (Field Action Science) Initiative, France; Advisory Board Member, "Life Science India", Confederation of Indian Industry (CII), New Delhi

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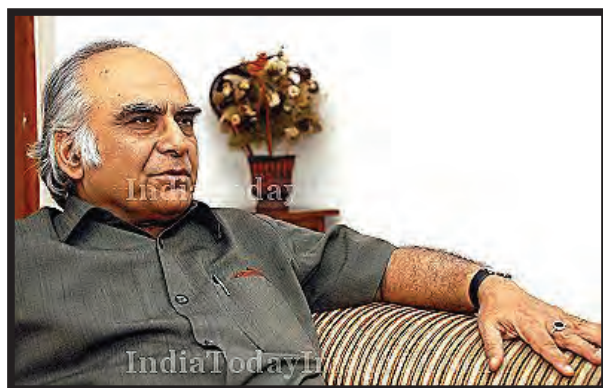
REVIEWER - Premium Reviewer, Dragon MedPub Inc., Montreal, Canada; Journal of Antimicrobial Chemotherapy, Oxford, UK; American Journal of Tropical Medicine & Hygiene, USA; Nature Reviews Cardiology, UK; Critical Reviews in Microbiology, London, UK; PLOS ONE; Microbial Pathogenesis - Journal - Elsevier; Reviewer Omics Publishing Group.

EDITORSHIP Infectious Disease Section, Pediatric Research (Nature Group), USA; Senior Editor, Studies on Respiratory Disorders (Springer Science and Business Media Plus), Germany



CHAIRMANSHIP/ ASSESSMENT OF DIFFERENT COMMITTEES

Shanti Swarup Bhatnagar Prize Advisory Committee (2000) in Medical Sciences, CSIR, New Delhi; Indian National Committee for International Council of Scientific Unions Microbiology (ICSU) 1994-97 (INSA); Research Council, Central Drug Research Institute, Lucknow; Committee on Customs/Central Excise duty exemption to medical research institutions; Scientific Advisory Committee, Tata Memorial Centre, Mumbai; Sub-Committee on Research and Technology, Confederation of Indian Industry, New Delhi; Chairman, Assessment Committee to consider the case promotion from Scientist F to Scientist G, National Centre for Cell Science, Pune (July, 2008); Chairman, Sectional Committee, Medical Biotechnology and Medical Nanotechnology MHD 20, Bureau of Indian Standards; MGM Institute of Health Sciences (Deemed University); Vallabhbhai Patel Chest Institute -Stem Cell Committee; Indraprastha Apollo Hospital Ethics Committee; Core Group of Experts for strengthening/upgradation of Central Research Institute, Kasauli including Central Drugs Laboratory; Standing Committee of experts for investigation of new drugs, Ministry of Health & Family



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Welfare, Nirman Bhavan, New Delhi; Expert Group to guide the work of the Pesticide Residue Sub Committee of CCFS, Ministry of Health & Family Welfare, Nirman Bhavan, New Delhi; Committee on health hazards due to mobile towers and other issues, Directorate General of Health Services, Nirman Bhavan, New Delhi; Chairman, Follow-up Committee to prepare a Finance Model to locate knowledge partner to develop PPP model, Directorate General of Health Services, New Delhi; Domain Expert Group, New Millennium Indian Technology Leadership Initiative (NMITLI), Council of Scientific & Industrial Research, New Delhi; Task Force "Evaluation of Probiotics in Food", ICMR; Chairman, Medical Biotechnology and Medical Nanotechnology Sectional Committee MHD 20, Bureau of Indian Standards; Technical Committee, Medical Equipment and Hospital Planning Department, Bureau Indian Standards; Preparation of Ethical Guidelines for Medical Education & Clinical Practice, Medical Council of India (MCI), New Delhi; Search-cum-Selection Committee for the post of Director, Indian Institute of Science Education and Research (IISER), Mohali etc.

Member

Technical Advisory Committee on Plague, Nirman Bhawan, Government of India, New Delhi; National Apical Advisory Committee (NAAC) for National Diseases Surveillance and Response System, Govt. of India, Ministry of Health and Family Welfare, Deptt. of Health, New Delhi; Committee for Typhoid Vaccine DGHS, New Delhi; Sub-committee on Immunodiagnostic kits of Drugs Controller of India; Sub-committee Department of Oceanography; Subgroup on Medical Biotechnology, Vaccines and Diagnostics, Government of India, Department of Biotechnology, New Delhi; Taskforce on Medical Biotechnology, Immunodiagnosics, Vaccines and Neuro-Sciences, Govt. of India, Ministry of Science and Technology, DBT, New Delhi; Expert Group Committee for Formulations of Guidelines Generating Pre-clinical and Clinical data for r-DNA based Vaccines, Diagnostics and other Biologicals, Department of Biotechnology, Ministry of Science & Technology (Govt. of India), Delhi ; Technology Information Forecasting

Sir, any Views on Science communication with special reference to India?

There is a lack of science communication in India and correctly communicating science is also very important.

Like, if you ask me about my 750 papers, I could really find two which were absolutely about new things and different from other 748. In India, what really happens is that the claims are not very calibrated. Some claims, that I have discovered this, I have discovered that, but really they should verify those claims and then only publish or make any announcements.

There are many times, things comes up in newspaper, sometimes many of them could not be substantiated, the situation which can be misleading.

And second the science communication should be understood by common man and they should know the benefit also.

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Prof Ganguly laying the foundation stone of the NCD auditorium complex

and Assessment Council (DST); Advisory Committee, Pitambar Pant National Environment Fellowship; Working Group of Experts to assist in formulating a paper on all matters relating to issues addressed under the WTO protocols for Trade in Services, Ministry of Health & Family Welfare, Deptt. of Health, New Delhi; National Bioethics Committee, Deptt. of Biotechnology, New Delhi; Indian Delegation to the International Conference on Tobacco & Law, New Delhi, 7-9 January, 2000; Consultative Group of Govt. Departments/Agencies on Science and Technology, Cabinet Secretariat, New Delhi; Member, Biotechnology Research and Promotion Committee (BRPC), Ministry of Science & Technology, Deptt. of Biotechnology, New Del-

hi (for 3 years w.e.f. 31.5.2000); National Bioethics Committee, Ministry of Science & Technology, Deptt. Of Biotechnology, New Delhi (November 16, 1999 – November 15, 2002); Committee for nominations for Padma Awards in the field of community service, Ministry of Health & Family Welfare (Deptt. of Family Welfare), New Delhi; Member, Committee on Life Sciences to award Swarnajayanti Fellowship, Ministry of Science & Technology, Deptt. of Science & Technology, New Delhi; Expert, TIME (Technology Innovation Management Entrepreneur Information Service), Department of Science & Technology and FICCI, New Delhi; Steering Committee on Science and Technology for the Formulation of the Eleventh Five Year Plan

(2007-2012), Planning Commission, Yojana Bhawan, New Delhi; Member, Advisory Committee, National Biotechnology Regulatory Authority (NBRA), Ministry of Science & Technology, Department of Biotechnology, New Delhi; Member, Apex Committee of Small Business Innovation Research Initiative (SBIRI) for implementation of the Scheme, Department of Biotechnology (August, 2008); Apex Committee, Biotechnology Industrial Partnership Programme, Department of Biotechnology (February, 2009); Member, Expert Committee to review the proposal towards establishing Indo-US Joint Centre on "Nano-Biotechnology" of Indo-US S&T (IUSSTF); Member, National Managing Body of the Indian Red Cross Society;

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Search-cum-Selection Committee for Appointment of Director, National Institute of Pharmaceutical Education and Research (NIPER), SAS Nagar (Mohali), Punjab; Member, Committee for Examining Matters Related to Operation of the New Delhi Component of the ICGEB, New Delhi; Member, Hari Om Ashram Awards for the years 1997 and 1998 (J.C.Bose Award in Life Sciences), University Grants Commission, New Delhi etc.

MEMBER OF SCIENTIFIC ADVISORY COMMITTEES OF NATIONAL BODIES

Scientific Advisory Committee, Department of Biotechnology, International Collaborative Project, New Delhi; Advisory Committee of Council's Malaria Research Centre, Delhi for IVDC; Member, Biological Stains - Immunodiagnostic & Chemical Diagnostic Kits Sectional Committee, MHD 16, New Delhi; Member, Task Force on Medical Biotechnology, DBT, New Delhi; Member, Sub-committee of Biotechnology in Health, Haryana Board of Science & Technology, Chandigarh; Member, Department of Biotechnology, New Delhi for establishment of liver cell bank as a National Facility; Member, Sub group on Medical Biotechnology, Vaccines and Diagnostics for formulation of Ninth Five Year Plan; Member, Advisory Board of Biomedicine, Indian Association of Biomedical Scientists; Nominated to ILTP Project Advisory Committee(PAC) in the area of Biology by DST, New Delhi; Member, Research Advisory Committee, Talwar Research Foundation; Member, Awards Committee,

Population Foundation of India, New Delhi; Member, Board of Industry Institute Interaction, All India Council for Technical Education, New Delhi; Member, Expert Panel, Gandhi Memorial Leprosy Foundation, Wardha; Member, Scientific Advisory Committee, National Institute of Ayurveda, Jaipur (Ministry of Health & Family Welfare, New Delhi); Member, Interdepartmental Committee on IPR, Ministry of Science & Technology, DST, New Delhi; Assessor, FICCI Award in the field of "Family Welfare" for 2003-04, Federation of Indian Chambers of Commerce and Industry, New Delhi; Member, Advisory Committee, Lakshmipat Singhanian - IIM, Lucknow National Leadership Awards, Indian Institute of Management, Lucknow; Member, CSIR-Advanced Institute of Science Training (CSIR-AIST), New Delhi; Member, Technical Advisory Group, Food Insecurity Atlas of Rural India, M.S.Swaminathan Research Foundation, Chennai; Member, Advisory Committee, Selection of the Awardee for the year 2006 for Prof.G.N.Ramachandran gold medal, CSIR, New Delhi; Member, Indo-US Science and Technology Forum for Award Committee, Delhi (February, 2008); Member, Search-cum-selection Committee to the post of Chairman (part-time) of Bharat Immunologicals and Biologicals Corporation Limited (BIBCOL); Member, International Conference on Ethics, Culture and Population Genomics, Anthropological Survey of India, Ministry of Culture; Member, Indo US Research Fellowship Award Committee; Member, Governing Body, National Agri-Food Biotechnology Institute, Mohali; Scientific Advisory Board, Institute of Bioinformatics, Bangalore, Karnataka etc.

MEMBERS OF THE DIFFERENT BODIES OF UNIVERSITIES

Panjab University, Chandigarh, (1-2-1995 to 31-1-1997); Board of Studies of Microbiology, Himachal University, Shimla; Board of Postgraduate Studies in Medical Education and Research, Punjab University, Chandigarh, 1-4-93 to 31-3-1995; Research Guide of Fellows of Jawahar Lal Nehru Centre for Advanced Scientific Research, Bangalore; Planning Board, Maharashtra University of Health Sciences, Nashik; Nominee of the President of India in his capacity as the Visitor of Delhi University in Selection Committee meetings for the teaching posts; National Institute of Mental Health & Neuro Sciences Society, Bangalore; Visiting Faculty, College of Agribusiness Management, G.B.Pant University of Agriculture & Technology, Pantnagar (U.P.); Member, Planning Board, Guru Gobind Singh Indraprastha University, Delhi; Expert, Board of Faculty of Medicine, HNB Garhwal University, Srinagar, Garhwal; Member, High Powered Committee to establish a medical college at Army Hospital (R&R) Complex, University of Delhi, Delhi; Organising Committee for Goyal Prize for the year 2003 in the field of Applied Sciences, Kurukshetra University; Advisory Committee, Bundelkhand University, Jhansi; Assessment Committee to evaluate the infrastructure, academic and other related facilities available in Vardhman Mahavir Medical College and Safdarjung Hospital, Guru Gobind Singh Indraprastha University, Delhi; Member, Executive Council, Maharashtra Animal & Fishery Sciences University, Nagpur; Eminent External Expert in Assessment Committee for the area of Biosciences and Biotechnology,

BT people



Recruitment and Assessment Board, CSIR (March 2008); Advisory Board, StanfordIndiaBiodesignCenter, AIIMS; Zenotech Laboratories Limited, Hyderabad; Committee for RUHS Post Doctoral College of Medical Sciences, Rajasthan University

MEMBER OF INDIAN TEAM IN INTERNATIONAL DELEGATIONS

Chairperson, Indo-US Vaccine Action Programme-Representative to Washington, DBT, New Delhi; Headed a team of Indian Scientists to an International Workshop on Streptococci/ Streptococcal Diseases held at Braunschweig, Germany, between 1st to 4th Sept 97; Representative as a Council Member at the Fifth World Congress of International Society of Adaptive Medicine held at Farmingham, Massachusetts, USA from September (7-10, 1997); 8th Meeting of the Integrated Long Term Programme (ILTP) of Cooperation in S&T between India and Russia Joint Council, Moscow, Russia, May 14-15, 1998.

DBT Representative on the IBSC constituted at National Institute of Pharmaceutical Education and Research, SAS Nagar (Mohali).

CONSULTANCY

Shanta Biotech Pvt Ltd. Member, Experts Committee - Technology Development Board, DST, New Delhi. A Cuban Recombinant Vaccine against Hepatitis B virus; **M/s Bharat Biotech**, Hyderabad, Environment approval of manufacturing Recombinant Hepatitis B surface protein; Commercialisation of Cefixime (4th Generation Cephalosporin); **M/s J K Pharmaceuticals**, Faridabad - Import of Hepatitis B Vaccine (r-DNA type by Prasad D); **Apsangikar, M/s Alkem Laboratories Ltd.**, Mumbai etc.

Kamal Pratap Singh
Managing Editor, Biotech Express

EXPERT FOR SCIENTIFIC PROJECTS

NATIONAL

Indian Council of Medical Research, New Delhi; Council of Scientific Industrial Research, New Delhi; Department of Biotechnology, New Delhi; Department of Science & Technology, New Delhi; Bhabha Atomic Research Centre, Bombay; Department of Science and Technology, UT, Chandigarh.

INTERNATIONAL

1. Expert Reviewer in International Science Foundation, Washington; Mauritius University, Mauritius; Expert evaluation of John Hopkins, Baltimore, USA; CRC Programme Assessor, Australia.

Sir, any message for life science community in particular to researchers ?

At grassroot level teachers selection should be done carefully. Also teachers should encourage students to choose science as a passion not greed.

When I passed my MBBS, my salary was 90 Rs. then 150 as PhD, 375 as Demonstrator, 640 as Lecturer and 1000 Rs when became Assistant professor. Though, the salary was less compared to other fields but rewards are high in Science/research, with perseverance you may accomplish anything.