



INDIAN ACADEMY OF SCIENCES

Bengaluru

83rd ANNUAL MEETING

3–5 November 2017, NEHU, Shillong



PUBLIC LECTURES

3 NOVEMBER 2017, FRIDAY

Time: 6:00 PM – 7:00 PM



David R. Syiemlieh
Union Public Service Commission, New Delhi
Percival Spear: Historian and Indophile

Indian history has, over the years, drawn the attention of discerning readers for a variety of reasons: its span in time, its geographical coverage, its people and institutions, the polities large and small, and, in more recent times, Indian nationalism. Among the many fine historians who have contributed to the understanding of India's past, that of Percival Spear was enormous. As a teacher, he impacted many of his students and scholars. His readers have appreciated his presentation of the histories, in a style that was his own. His coverage of Indian history spanned many centuries, right up to more recent times. Spear's histories were broad, seminal, fitting into a distinctive school of historiography and were fine works in literature. In more recent times, his studies have almost been set aside for more pointed and detailed research. Percival Spear was a great admirer of India, its people and its past, and this is reflected in his histories.

Historian David R. Syiemlieh joined NEHU, Shillong, in 1979, as Professor. During his tenure, he was, at different times, the Dean of Students' Welfare, Proctor, Director of College Development Council, Head, Department of History, Controller of Examinations, Registrar, and Pro-Vice-Chancellor. He was appointed Vice-Chancellor of RGU, Itanagar, in 2011. He has received a number of prestigious academic fellowships including a Senior Fulbright Fellowship to Notre Dame University, USA; a Charles Wallace Grant for research in the UK and an Indo-France Cultural Exchange grant for research in Paris. He has authored several books including On the Edge of Empire: Four British Plans for North East India, and Layers of History: Essays on the Khasi-Jaintias. Syiemlieh was former President, North East India History Association and the Modern India Section, Indian History Congress. He was former Honorary Director, ICSSR-NEERC, Shillong, and Council Member of both ICHR and ICSSR, New Delhi. He is currently Chairman of UPSC.

4 NOVEMBER 2017, SATURDAY

Time: 6:00 PM – 7:00 PM



Sanjoy Hazarika
Commonwealth Human Rights Initiative, New Delhi
Dilli Door Ast? The Margins, Memory and Identity

The many competing groups of the region that is called the North-East maybe strangers to each other, but they are no strangers to history. History is a close and, at times, terrible and unforgiving companion. Attitudes are formed by experiences, narrated in stories; these stories become texts, embedded in books and taught to generations who pass on the word. The volume of words become a torrent of cement and brick, building high walls of division. Those inside the wall believe they are specially privileged. Those outside are the 'bahiror mahuh', the outsiders. For long, this region has been viewed as being at the margins – yet these very margins have forged a narrative over decades that have forced New Delhi and all of India to listen and take notice of their demands.

Sanjoy Hazarika is Director, Commonwealth Human Rights Initiative, and Chairperson, Society for Environmental Communications. He was the founder Director, Centre for North East Studies and Policy Research, Jamia Millia Islamia, New Delhi, and also holds the Dr Saifuddin Kitchlew Chair. He is the founder and managing trustee of North East Studies, which runs the pioneering boat clinics on the Brahmaputra in Assam providing medical access to marginalised communities. Hazarika received the Dr Jean Mayer Global Citizenship Award from Tufts University and is one of North-East India's best-known commentators. He holds a number of advisory positions both in Central and State Government committees and Universities. Mr Hazarika has authored several books on North-East India and its people, and writes for major Indian and international media.

SPECIAL LECTURES

4 NOVEMBER 2017, SATURDAY

Time: 9:00 AM – 9:40 AM



Rajendra Bhatia
Ashoka University, Haryana
Averaging of Positive Definite Matrices

Positive definite matrices arise in several areas – as covariance matrices in statistics, as density matrices in quantum information, as stiffness matrices in mechanics, as diffusion matrices in fluid flow, as kernels in machine learning. Often, it is required to have an averaging operation that respects some structure of the data set. The speaker will describe one such operation, and its connections with geometry. This geometric mean introduced about ten years ago is finding lots of applications in areas like image processing, brain-computer interface, and smoothing of radar data.

Rajendra Bhatia spent most of his professional life at Indian Statistical Institute, Delhi, and has recently joined Ashoka University. Much of his work is on analysis of matrices and operators and its connections with harmonic analysis, Riemannian geometry, approximation theory, numerical analysis, and physics. He has authored five books. He is the founder editor of the series Texts and Readings in Mathematics, which has published 75 books, and the series Culture and History of Mathematics, which has published 10 books. In 2016, he was awarded the Hans Schneider Prize in Linear Algebra.

5 NOVEMBER 2017, SUNDAY

Time: 12:00 PM – 12:40 PM



Lalit Kumar
All India Institute of Medical Sciences, New Delhi
Targeted Therapy for Cancer Treatment: Have We Found the Magic Bullet!

With the development of newer techniques and better understanding of the biology of cancer cells, in the past two decades, a number of new drugs or molecules have been developed. These are small molecules and monoclonal antibodies that are more specific, and are called targeted therapy. They block the molecular abnormality or target(s) in the cancer cells and stop its further growth. A number of monoclonal antibodies have also been developed in the past few years which can selectively kill/ block the cancer cells. More recently, research into the tumour microenvironment and T-cell-mediated downregulation of anti-tumour immunity has led to the development of antibody-based interventions by targeting immune checkpoints such as programmed cell death protein 1 (PD-1) on T lymphocytes and its principal ligand (PD-L1) on tumour cells. Contrary to traditional cytotoxic chemotherapy, these novel molecules are devoid of toxicities like alopecia, nausea, etc. However, these new molecules have unique side effects. Some patients develop resistance after an initial response. The speaker will discuss the initial experience of treating patients with advanced cancer or those who have failed chemotherapy and/or radiation with these novel molecules. His talk will also include specifics of current investigations on how to combine or sequence these novel agents (anti-angiogenic agents, immune-checkpoint inhibitors, etc.) with cytotoxic chemotherapy or radiation in the treatment scheme.

Lalit Kumar is currently Professor and Head of Medical Oncology at AIIMS, New Delhi. He has played a leadership role in the development of cost-effective stem cell transplantation programme at the AIIMS. His group has made seminal contributions to the field of gynecologic oncology and multiple myeloma. Kumar has published more than 350 research papers in national and International journals. A fellow of the Indian Academy of Sciences, Bengaluru, and National Academy of Medical Sciences, New Delhi, he is a recipient of ICMR Novartis Oration award, Dr BC Roy National Award, and Ranbaxy Science Foundation Award (2007). Kumar was conferred the Padma Shri in 2014.

