

Prof Gagandeep Kang at discussion on R&D ecosystem for new S&T policy



The poster for the event "STIP 2020: ACROSS THE TABLE" is set against a blue and green background with a grid pattern. At the top left is the logo of the Department of Science & Technology, India. The title "STIP 2020: ACROSS THE TABLE" is in large white letters. To the right is the "SCIENCE POLICY FORUM" logo. Below the title, it says "Thematic panel discussion on Research and Development Ecosystem" and "Date: 25 June 2020 | 6:00 PM to 8:00 PM". A central text block states: "STIP2020 Secretariat and the Science Policy Forum announce a panel discussion on **Research and Development Ecosystem** as part of the extended public and expert consultations for the formulation of India's new Science, Technology and Innovation Policy (STIP)." Below this is an orange button that says "Join us for an interaction with". Five circular portraits of the panelists are shown, each with their name and affiliation: Prof. Gagandeep Kang (Director, Translational Health Science and Technology Institute), Prof. Sher Ali (Director, Center for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia), Prof. Vivek Kumar Singh (Professor, Banaras Hindu University), Prof. T. A. Abinandanan (Professor, IISc Bangalore, Coordinator -DST-Centre for Policy Research), and Dr. Bhaktee Dongaonkar (Postdoctoral Researcher, NCBS). At the bottom, it says "Watch the live stream on YouTube" and "Use #AskSTIP2020R&D to have your say on Twitter, LinkedIn and Facebook and ask your questions to the panellists." There is a QR code and a link "https://bit.ly/3ep29QL" for more details and registration. The hashtag #STIP2020 is on the left, and the Gubbi Labs logo is on the right with the text "In partnership with: gubbiLABS".

New Delhi, July 10: The STIP2020 Secretariat & Science Policy Forum organized a panel discussion on the research and development ecosystem in India. The event was part of the extended consultations with the public and experts for the formulation of India's new Science, Technology and Innovation Policy (STIP). The panel comprised of Prof. Gagandeep Kang, Director of the Department of Biotechnology's Translational Health Science and Technology Institute (DBT-THSTI); Prof. T.A. Abinandanan, Professor & Chairman, Materials Engineering, Coordinator -DST-Centre for Policy Research, IISc Bangalore; Prof. Sher Ali, Director, Center for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia; Prof. Vivek Kumar Singh, Professor, Department of Computer Science, Banaras Hindu University; and Dr. Bhaktee Dongaonkar, Postdoctoral Researcher, National Centre for Biological Sciences. The discussion was moderated by Dr. Smita Jain from India Bioscience and Spoorthy Raman of Gubbi Labs. The deliberations were around the importance of the ease of doing science, a healthy atmosphere for research and productivity with a focus on quality over quantity, and trans-disciplinary and interdisciplinary research.

Here are a few excerpts from what Prof. Kang spoke.

Competing with the big names in scientific research - UK, US and China by improving research output and researchers?

Responsibility of leadership is to get out of the way of younger people. That can be difficult when you know your years of experience says you know better. But you need people to grow in their ways. Let them make a mistake and recover. Let them go when they are flying. This will help build number of researchers and create enthusiasm in them for research. A top down structure doesn't necessarily nurture ambition to do bigger and better things. Collaborations should get young people together. International collaborations too should be undertaken and they should be a benchmark. Not competing with a few institutes within the country.

On increasing the numbers of researchers

The bulk of the responsibility of researchers in universities is teaching not research – this should be taken into account while evaluating research output. A lot of good research is also being done outside government organizations and this should be counted too. We have parked better research in a selected few institutes and bulk of resources are diverted to a few institutes. A counter that has been done is to have a central university in every Indian state. Also, industry should interact with universities too through university accelerators. We are not the richest country, but a country of bright minds. Focus and we will be able to do more. How we are different is that there is no aversion to science while bringing up children in our society as opposed to many parts in the rest of the world. We need to recognize and capitalize on it.

On Nepotism during recruitment

There is an “All boys network” and there is no denying that. It is not typical to India. But in India, we tend to pay lip service to the issue of ‘conflict of interest’. We need to handle the subject better. We need to act according to global norms when it comes to recognizing and then handling conflict of interest.

Key performance indicators in the country how to build a quantifying framework

Designing the right metrics is challenging. The number of PhDs, projects, papers, impact factors do not really measure impact. Idea of measuring the trajectories towards lowered dependence on imported equipment, reagents etc. is a metric of technology innovation. That tells how self-sufficient you are. There should, however, be an element of quality. A second metric can be if you attract foreign students and post-doctoral researchers. Students would come if they see you as a world leader for a field of research. This is an appropriate metric.

These and more measurements should show us that we are on the right track. Not achievable overnight, but something that we can start doing.

For women researchers

Only because we have hard times, isn't why we should put others through hard times too. I suggest impact assessment of programs that brought in more women back into academia. This is a metric that should be tracked for improvement. Level of flexibility for women can be improved. Leaders who understand family commitments needed to have more women researchers. Else science will face a huge loss as less flexibility at the workplace for women is the primary reason for attrition. The onus is on leadership to make sure there is a supportive environment.

Advice to early career researchers

Learning from those successful within the ecosystem. Get them to mentor you. DBT/WT India Alliance is doing something to get formal mentors to help the career growth of younger people. In the absence of a formal mentoring program it is advisable to find out who made it big? How did they get there? Start networking as early as possible. You will need young people around you to support you personally and professionally. You need to build a support system.

There is no end to challenges. Don't focus on complaining. Look for opportunities, support and not necessarily in your department. Working together is a strength. We lose nothing and gain a lot by working with others.

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