

## The beacon of innovation

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Person of the year award

Dr Renu Swarup and Birac addition

### **Dr Renu Swarup**

adviser, Department of Biotechnology and managing director, Biotechnology Industry Research Assistance Council (BIRAC)

Coming from the defence lineage, this disciplined and strong willed lady, who holds an overseas postdoctoral degree, is driving innovations in the biotech industry through the funding schemes thereby providing support for this niche and upcoming sector

A passion for taking up challenging assignments in new fields motivated Dr Renu Swarup, a young lady with doctorate degree in genetics and plant breeding and post-doctoral research at The John Innes Centre, Norwich UK, to join a small team of over 20 people at the Department of Biotechnology (DBT), which was a spinoff from Department of Science and Technology and was just three years old then in 1989. From then on, there is no looking back for the lady who has spearheaded many initiatives, projects and programs on different topics at the DBT.

During her career span of 23 years she has initiated many "firsts" at the department such as - the first centre for plant biotechnology at National Chemical Laboratory (NCL) at Pune. She was the part of the team that brought out 60 forestry regulation protocols for 10 million plants. Her role in the establishment of Lucknow Biotech Park, also has been exemplary, for which the then Prime Minister, Mr Atal Bihari Vajpayee, who incidentally represents Lucknow constituency in Parliament laid the foundation in 2003.

Besides being a senior advisor to DBT, currently Dr Renu Swarup has been heading a new initiative of the

department - Biotechnology Industry Research Assistance Council (BIRAC), a not-for-profit section 25 company of Government of India, set up with the idea to serve as a single window for emerging biotech industry as its first managing director.

Dr Swarup played a key role in getting the new organization created and making it operational. The company successfully runs a large number of funding schemes for industry innovation, ranging from the ignition grant to proof of concept funding, validation and product development. The main focus of the organization is on enabling and supporting the biotech innovation ecosystem. The company is mandated to take discovery forward and encourage the product development by indigenous biotechnological companies.

Dr Swarup considers herself fortunate enough to have worked on the programs such as Small Business Innovation Research Initiative (SBIRI) and Biotechnology Industry Partnership Program (BIPP). These programs were established to support innovation at the level of discovery upto the clinical stage. "When we started these programs long back, our vision was to have a futuristic programs for creating better options to meet the societal needs in the long run. I am proud to say that out of hundreds of projects supported by us so far, about 10 to 11 innovations have qualified for further development."

With promoting new ideas high on her agenda, Dr Renu Swarup has played a key role in new initiatives such as Biotechnology Industry Research Assistant Program (BIRAP) and Biotechnology Industry Partnership Program (BIPP), Energy Bioscience, Bioresource and Bioprospecting, Biotech Park Lucknow, and Epromis Application at DBT. She has also been closely involved in programs and activities related to women and science. She was responsible for implementation of DBT Scheme on Biotechnology Career Advancement for Women Scientists - BioCARE. She also promoted National Certification System for Tissue Culture Raised Plants (NCS-TCP) under Indo-Australia Biotechnology Program. DBT-TWAS Biotechnology Fellowship Scheme, BIOCARE Research Competitive Grant Fellowship and Career Research fellowship

### **Donning the director's hat**

Recalling the initial discussions on creation of a program aimed at fostering innovation in the country in 2005, Dr Swarup, who was a part of the discussions held between the various stakeholders including industry experts, financial, legal and venture specialists, said, "We came up with an announcement of strategy consultation amidst many ministries involved in the exercise. It was really a challenge for us to create a unique philosophy for a new organization and also ensure that it is not a copy of DBT and just complements the work of the former. That's when we authorized the Indian Institute of Management, Ahmedabad to prepare a report to find out what would be best for an organization that nurtures innovation. That resulted in the creation of Biotechnology Industry Research Assistance Program (BIRAP), a program to nurture innovation. Finally, in April 2012, it was incorporated as a section 25 public sector company known as BIRAC by the government of India to nurture and promote innovation research in the biotech enterprise with special focus on start-ups and SMEs."

### **'We are here to instill confidence in entrepreneurs'**

**Dr Renu Swarup, BIRAC: How are you wrapping BIRAC?**

"We definitely need to instill confidence in the new comers in the industry. We need to find out the reason why more scientists are not willing to turn into entrepreneurs and what is the actual barrier stopping them. We know that something is restricting them and the financial conditions might be one of the reasons along with the level of education and awareness. The lack of enough mentors and role models for the biotech community in the country is also a hindrance.

**What will be your priority for reaching out to them?**

"It is necessary to see how the entrepreneurs have moved in this area. Reaching out to the industry has never been an issue. There are lot many people who speak for BIRAC at different platforms. We tried to reach out to them through various means including print media, websites and put forth the best information as much as we can. The events such as grant aiding workshops, road shows, seminars and training sessions were helpful. Infact there is a large population and we need to reach out to more people. We are networking with the industry at a greater scale and the launch of BIG scheme is yet another great step in this direction. Until now there was no such investment scheme for the companies at lower level. We are trying to bring in mentorship but obviously it will take a while to get there. We are hopeful that in the years to come we would be able to achieve that.

## What is your message to the entrepreneurs?

The entrepreneurs must have a clear and an open mind about the idea that they will be working on. They should also think about the idea if it is achievable or not. The idea must be sustainable and they must be ready to invest time and energy to deliver.

Dr Swarup credits Dr MK Bhan, secretary of DBT, for having envisaged the goals that are unique to the core. She proudly points to that fact there is no model like BIRAC anywhere in the world.

Dr Renu Swarup has been instrumental in providing support to many innovative projects and all credits to her for generating lot of activism calculated risk. The Biotech Consortium India Ltd (BCIL) was a great partner and the way they handled the logistics and administration was awesome, because of which we got ample time for the technical nitty gritty for the new organization. It never happens anywhere that a managing director and CEO of a Biotech programme like BIRAC, that was a unique pilot project gets converted into a full fledged president. Association of Biotechnology High Level Enterprises it gave me immense happiness that something like this has been finally achieved. We will ensure that BIRAC operates as an organization which will act as a connector and catalyzer," says the enthused Dr Swarup with a visible bright smile.

Having received close to ₹70 crore operational budget initially, BIRAC under the leadership of Dr Swarup has been allocated a budget of ₹150 crore this financial year. Having supported seven projects, the response has been good so far. Now the wait is on. "Among other verticals, we are also interested in taking up the green technology projects and international technological collaborations. We look ahead to create a biotech innovation enterprise which is at par with the global best," she adds with confidence in her voice.

## Nurturing the seeds of innovation

Dr Swarup was also instrumental in supporting the creation of new incubators that received overwhelming support from the universities and colleges. However, Dr Swarup admits being cautious in choosing the proposals as the aim was not to set up incubation units just for the sake of it. "We had through our website stated clearly that the potential beneficiary must be having the existing incubator and should be involved in the business for a while. We are trying to provide the mentorship in intellectual property, tech transfer, connectivity, and awareness sessions. The idea is to make them functional and not just creating another lab space," says Dr Swarup.

Talking further about the relevance of public private partnerships and the role played by DBT, Dr Swarup says, "Academia feels confident when they come to industry through DBT. They know that we are behind them to take care of their interests including the intellectual property issues. Her convincing skills are exemplary." The second reason is that they might not be well conversant with the technical knowledge. They don't have that background."

**Dr Chetan Chitnis** She was also a member of the task force on women in science constituted by the scientific principal investigator, Malaria Group, advisory committee to the prime minister. On being asked about encouraging more women International Centre for Genetic Engineering and Biotechnology that women must be encouraged to take up research. However, she is of the opinion that it is the quality and outcome of research that is very important and it must not be compromised at any cost. "They should perform well and shine. I worked in a team and as a woman it is always relaxing to see more and more of them coming into this field. But they have to work shoulder to shoulder with men and be equally talented to deliver."

Currently Dr Swarup is busy with the Social Innovation Scheme for affordable healthcare which is to be launched by April, 2013. Dr Swarup finds it difficult to pin point a particular project as her SDP Swadeshp has been doing quite a good job at achievement. "I have an advantage as my portfolio is diverse right from the tissue culture, DBT. Her role in initiating various new projects industry partnerships, microbial research, public private partnership, and energy which was and their execution has been simply great my idea. I enjoyed working on creating a roadmap for three bioenergy centres. The launch of ignition grant was very satisfying, yet it is difficult to choose one and say this was the best."

**Sureet Deshpande**  
CEO, V Life Sciences

Born in Ahmedabad (Gujarat), Dr Renu Swarup belongs to a family of defense people. She got to travel across India as her father was serving in the army. Owing to her busy schedule,

she seldom gets time to enjoy her dearest hobby of reading books.

**Rahul Koul**