'Biotech has a unique advantage of contributing immensely to all sectors'

Dr Renu Swarup
Senior Adviser to the Department of Biotechnology and Managing Director of BioTechnology Industry Research Assistance Council (BIRAC)

Dr Renu Swarup is presently Senior Adviser to the Department of Biotechnology (DBT). At DBT, she heads the National Bioresource Development Board and is involved in developing, funding and monitoring programmes in the area of Energy Biosciences, Bioresource Development and Utilization and Plant Biotechnology - Bio prospecting, Tissue Culture and other Biomass associated programmes. Issues related to policy planning and implementation are also a part of her assignment. She was actively engaged in formulation of the Biotechnology Vision in 2001 and National Biotechnology Development Strategy in 2007 as the Member Secretary of the Expert Committee. She was also a member of the Task Force on Women in Science constituted by the Scientific Advisory Committee to the Prime Minister. She was awarded the 'BioSpectrum Person of the Year Award' in 2012. Recently BioSpectrum team met her in her office to discuss various funding aspects of BIRAC and Startup trends in India: Excerpts:

Q ***What are the startup trends in the recent times?***

A Startup ecosystem is growing and DBT and BIRAC is nurturing it from past four years. Now with the Prime Minister announcing 'Startup India and Stand Up India' program, we are giving it more importance. Today over 500-600 startups are supported through BIRAC and the trend is increasing. Sector wise, I would say focus is more on healthcare - within healthcare more on medical devices and diagnostics. The reason for that is obviously less complex regulation and huge market place. Also infrastructure and Capex requirement to set up initially is

not complex. But having said that more and more people are moving towards discovery research startups. Agriculture and industrial process is also slowly picking up.

Q ***How is BIRAC positioning itself so as to contribute to DBT's Mission $100 billion by 2025?***

A BIRAC is DBT's arm for fulfilling all public-private partnerships, government's 'Startup India -Standup India' mandate and connecting industry and academia. All this translates into BIRAC's mandate. BIRAC's vision and strategy is aligned towards this.

Q ***BIRAC's grants are popular among startups. Considering the high turnout of applications for these grants, only few get selected. Are there any plans to launch new schemes?***

A We do not consider different schemes for different groups. Our schemes look at product development cycle as a whole. We take it from idea to product development. That's how all our schemes work. For example 'Ignition Grant' goes to individual or a startup idea, through proof of concept (POC) we do late stage validation, social relevance program through our 'Sparsh' scheme. We have looked at all components. We also look at current incubation schemes. Here we are doing university incubation.

We are working with National Innovation Foundation (Srishti) for school and college students to give them innovation grants. Right now our schemes get to meet the needs of entrepreneurs. Currently new scheme of modality is not on the anvil.

How do we look at funding in terms of Angel funding, seed funding. In our action plan we have announced Bio-Tech equity fund. That's the next step. We are waiting for internal approval and systems in place to get the money. Very shortly we will have Biotech equity fund where BIRAC will be co-investing. The BIRAC equity seed fund, which we will run through our incubation centre, will be able to invest in companies and will have equity stake and BIRAC will also hold nominal equity stake. When entire equity fund comes this would be 'funds of funds'.

Q ***Many startups we have spoken to claim that funding is available but the amount of time it takes to get it is a long and painful process. How are you going to address this?***

A Let me make it clear that the current mechanism is for about 4-5 months, maximum 6 months. If we compare with international standards it is on par or better. Having said that entrepreneurs are in a rush. We are studying the internal processes to see how we can better this. Some of the larger projects need stringent due diligence and also we go by the tiered mechanism. If we get 200 applications we can fund only 10 percent. We can't pick those 10 randomly. All of them are good. We need to make sure that we are funding the best. There are two reasons for restricting funding to small numbers:

1. Our own kitty is not too large for funding.

2. We want to fund only meritorious startups.

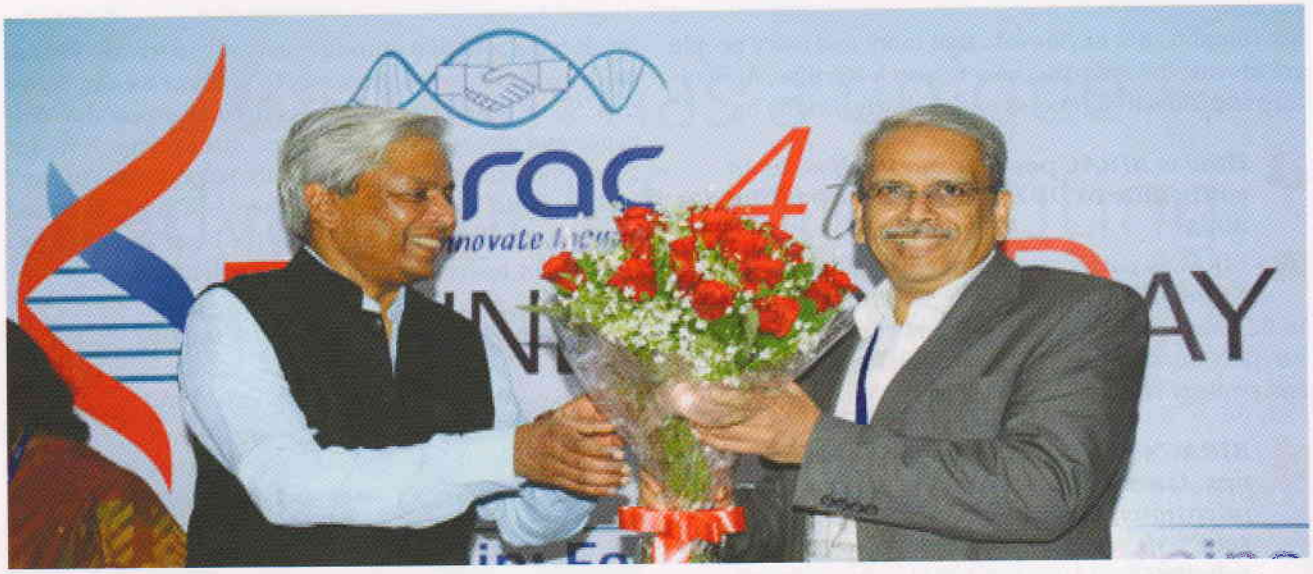
More than anything else, we are not providing research grant for academic purpose, which will help us bring publications and patents, which is important. Already DBT is funding a lot of them. This is where an entrepreneur or startup company bases their entrepreneur venture on us. If we don't correct them if their idea or business plan is wrong at this point of time then it is not correct on our part.

There is no point in leading them on a wrong path. The effort we make requires some amount of time. We are taking minimum time for due diligence. We started with 7-8 months. We brought it down to 5-6 months. We are open to it. This is a dynamic process. We keep looking at it and ponder on how to improve our process. Being cent percent online improves transparency in the system and improves speed also. We can work towards making it better. It is fairly good right now.

Q ***As you said if 200 people apply 10% is what you could support. But there could be 40 such actually deserving support. For the rest do you give certification that the proposal is validated by BIRAC and is deserving?***

A As of now we haven't rejected a project because it did not fall in the funding aspect. In some of the Ignition fund, we have given guidance on how they can become better. It is ranking amongst them. There is no certification but we do provide guidance on how they can improve and come back for funding.

We are now trying to work out how our funding works as a catalyst and rope in more fund givers into the kitty and make it larger. We are already working on that. We are hoping to start an innovation market place where innovators, who have completed a POC and are ready to showcase, meet investors whom we hope to bring forward.



Kris Gopalakrishnan at BIRAC's 4th Foundation Day with K VijayRaghavan

It is some sort of certification where we state that these are innovators whose technical due diligence has been done and feel they have a wonderful business plan. Good investors can approach them and invest. We will fund certain percentage while the rest is taken care of by the parties concerned. All BIRAC supported innovation will be filtered and pooled and taken to this innovation market place. We are working on it and hope to place it in public domain. We should be doing it in a couple of months. By next month we should have the guidelines in place.

Q ***The fund granting committee mainly consists of academicians and researchers who do not have prior enterprise background. Many start-ups want to see inclusion of experienced entrepreneurs and industry veterans as part of the funds committee. What do you have to say about this? Will this suggestion be considered?***

A First of all let me tell you that as a government organization to come forward to run a major industry funding program is a big thing. There are serious issues of conflict of interest like data protection, IP protection etc. We bring in experts who are not only academic experts but experts and mentors who have industry experience and are with various organizations like accelerators, incubators and startups. People who come onto the selection committee have to be beyond academician or innovator. They bring in large holistic experience as many of them are sitting on boards, companies, startups. If you say today you have active startup who is working I have to bring somebody from that area with that domain knowledge or product. How can I bring it for evolution. That's a peer-to-peer valuation. It is not done any way. So we have panels with well chosen experts with lot of national and global recognition. They have experience in how startups work, entrepreneurs work, business plans are monitored. Many of them we source from accelerators, incubators who run them. They are the ones who sit on investment bodies. We bring in investors on our panel. We can do that much.

Q ***Does the growth of biotech industry in recent years match your forecast?***

A We would like to see it growing at a faster pace. We had originally, in our strategy meet, put certain figures. We are very confident it has picked up and moving in the right direction. We should be able to achieve the set timelines. There was flat pace couple of years back. From past 2 years it is moving on the correct path.

Q ***Is BIRAC working with Asian countries?***

A We have international collaborations but nothing specific to APAC. Mostly with European region. There is no specific reason why we have not gone to Asian countries. We would be happy to work with Japan, Korea and Singapore to name a few. We would like to see how things works. People from these regions come for discussions, some incubators, investors show interest but no formal collaborations take place.

Q ***What is the significance of global and Indian partnerships for you?***

A Huge significance. One of BIRAC's key strategy is to work on partnerships which we have mentioned in our vision and mission statements on the website. We look at it from two angels. 1. The strength that exists in various bodies which are well suited to take forward. We

BIRAC last year signed an MoU with UK Trade & Investment, India for boosting innovation capabilities of Indian and British biotech/life science industry

can work with them and leverage that strength. BIRAC is a nimble organization hence where strength exists we look to partner.

2. BIRAC is a catalyst. Being a catalyst one has to put in the right combination. That's what we intend to do. Not only in investments and funding but many of our partnerships are developed for creating network platforms, creating opportunities for startups and mentorships. Any activity that BIRAC does is in partnership except those which are specific funding schemes.

Q ***How do you think biotechnology can help in the overall development of science projects?***

A Our biotech strategy clearly outlines the scope. Biotech has a unique advantage of contributing immensely to all sectors. Be it agriculture, healthcare, pharma, industry - any sector you think of biotech contributes greatly. Look at healthcare - vaccines, enzymes, biosimilars. I don't need to specify anything on vaccine. You know that better. India is a leading vaccine developer. In agri products - so many agri companies use biotechnology. You can find them in bio fertilizers, bio pesticides.

Q ***Industry feels the CRO policy regime is not very encouraging and supportive.***

A I think ministry of health is already looking into it. Things are looking better. Strengthening the DGCI system, technical upgradation etc. So on the whole things are moving in the right direction. I am sure things will improve.

Q ***What is your dream for BIRAC?***

A BIRAC should be able to address the country's needs in achieving much more than targeted. 2,000 is the number we projected. That's only for the next 5 years. But we are growing much beyond that because the potential is huge. BIRAC can be in the driver's seat to ensure India becomes the leading biotech startup eco system. One hears about IT sector being third in the IT startup ecosystem. We should be able to do this for the biotech sector too. We should definitely be in the first four or five. BIRAC is just not a funder, we are doing much beyond that.

Not only as an ecosystem accelerator but also as one interested to see how we could get this to go beyond one's expectations as there is potential. We are only thinking that far, but now we can think beyond that because the potential is huge.

There is untapped potential. We are now looking at setting up regional entrepreneurship center. We already have regional innovation center at IKP where we send many of our startups. We also send startups to Cambridge University for training. We are now tying up with techies and innovators in the field. We are doing this to help them understand. We are trying to bring faculties to India to train. BS

SRINIVAS R