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Hot Start-up: Cleanergis Biosciences

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"I came up with the idea of starting up my company catering to the industrial needs using my expertise in the industrial biotechnology. With years of expertise, I believed I can achieve something significant in this area," states Dr Sangeeta, founder & director, Cleanergis Biosciences.

She is a trained biotechnologist with a PhD from
Indian Institute of Science (IISc). Her doctoral thesis focused on viral vaccines.

Post which, she pursued her post-doctoral research at the University of France, Paris, in Oncology.

Dr Sangeeta then worked for Cadila Pharmaceuticals and Aurigene Discovery. The turning point came in when she got a break at the Danish enzyme firm - Novozymes. She managed Novozymes' R&D activities in Bangalore.

At Novozymes, her interest grew manifold in the industrial applications of enzymes.

"My interest became stronger to explore the possibilities of solving core problems faced by industries. The challenges were to develop efficient, innovative and clean methods to solve those problems," Dr Sangeeta adds.

The year was 2012. The idea of forming a company had already conceived in her mind. By February 2013, she established Cleanergis Biosciences and got it registered.

With customized solutions, flexible scale, and proprietary technologies, Cleanergis Biosciences works in partnerships to ensure efficient and high-quality protein production, process development and scale-up production of biologics for research and commercial purposes.

The company is currently focused on technologies that would help in producing food preservatives, and food grade enzymes. "For this, we have already established collaborations with Indian and foreign companies," reveals Dr Sangeeta.

No Exceptions

So far, Cleanergis has been funded by the founder, along with the good support of family and friends.

She says that availability of funds is a major challenge faced by any start-up in the country.

"Cleanergis is no exception to this," says Dr Sangeeta. "Organizing funds was a primary concern. Hence it was difficult to set-up the necessary laboratory infrastructure initially. As any other biotechnology company, we also faced challenges with availability of necessary equipments. Also, getting information in the form of patents, reports, and scientific protocols was a challenge, either due to funds or reliability. Getting the right contacts for demonstrating the technologies and establishing right partnerships were also challenges that we had to face."

"Attempts have been made to get government grants, and partial grants have been granted for one of our projects. The company now is on an aggressive look-out for additional funds through venture capital sources and business collaborators," voices Dr Sangeeta.

She also feels that working with established partners would be one of the best ways to prove a technology's worth, and build a start-up enterprise.

Dr Sangeeta points that the Biotechnology Ignition Grant (BIG) provided by the Department of Biotechnology (DBT) can also be one of the best ways to raise start-up cash, followed by angel investments.

Government & Entrepreneurship

She strongly believes in the essentiality of the Government in encouraging innovation and entrepreneurship.

"The society at large benefits from a successful enterprise, and hence it is essential for the Government to encourage more and more start-ups. The Indian Government, through various schemes such as the Biotechnology Ignition Grant for biotech start-ups, has significantly contributed to this. In addition, to encourage innovation, the Government should give grants to researches to accomplish research in a start-up environment. The role of mentoring start-ups should also be aggressively conducted by the Government to help start-up enterprises to succeed and grow," she mentions.

Technologies & IPs

So far, Cleanergis has developed three powerful technologies -- two for the food industry, and one in the area of waste-water treatment.

It has established business relationships with two food processing companies.

"Our first collaboration involves the development of technologies for better shelf-life of certain food that are exported. The second collaboration is in food processing with a Spanish company, on strain improvement of certain microbes that produce enzymes for meat processing. This collaboration would benefit Cleanergis by establishing strong IP. Apart from this, Cleanergis is also working on efforts to build a technology in bioremediation of industrial effluents, where we have partnered with companies in waste-water treatment," Dr Sangeeta highlights.

With products under development specifically for the food industry, Cleanergis is looking forward to partner with more companies in this area.

"We are also looking at offering services in the area of microbial technology to companies on a fee-for-service basis," she says.

Based in Bangalore, the company expects to have a few products in the next one year, upon which it would either consider to out-license or market them with partners.

"From the current focus of purely technology development, we plan to expand our capabilities to patent our inventions and out-license the technologies. We plan to establish teams in international business development and small scale manufacturing. As we grow, we also plan to strengthen our R&D," she explains.

In the upcoming year, the start-up plans to consolidate its IP position by filing patents for some of its innovations.

New Entrepreneurs

She advises new entrepreneurs to begin a start-up by exploring strong ideas and developing prototypes that will have a great demand in the market.

"Be frugal as much as possible in your spending, and have faith in yourself. One needs to be perfect in planning on all aspects. One should keep their start-up stress under control by keeping their fears under tight control. Also one needs to keep hopes alive and be optimistic," she opines.

Start-up Visibility

She also states that it is essential for start-ups to be noticed by investors and possible collaborators at all times.

"Though, essentially a start-up needs funding, it is more important that the technologies or services that it develops have traction with potential customers and collaborators. Companies need to be proactive and take up opportunities that lead to visibility - opportunities such as competitions, seminars, and other platforms," she remarks.

Areas of Opportunities

Apart from industrial applications in biotechnology, she claims Healthcare and Diagnostics as areas with huge potential for biotechnology start-ups.

She sees Delhi and Pune as the next emerging start-up hubs in the country.

Dr Sangeeta explains, "The conditions prevailing in these cities are far conducive to start-ups. Availability of good infrastructure and trained manpower in these cities are great assets. These cities have good incubation facilities, venture capital hubs and technology advisors."

Encouraging Innovation & Risk

As a technology-driven start-up, she observes that innovation is the backbone for any company. "We have a motto which says, 'No idea is a bad idea'. Everybody in the company is encouraged to share ideas," she comments.

Having witnessed research abroad, she points that in the developed West, all infrastructural requirements such as incubators, communication, transport, electricity, water, and consumables are easily available, and don't interfere with basic needs.

"In the West, funding scenario is healthier, as the culture thrives on innovation. Therefore, a lot of angel and venture funds encourage entrepreneurship and risk-taking. The West also adapts to good IP regulation and technology transfer initiatives, where start-ups can look forward to culminate their innovations. If India can imitate this, it'd work wonders for start-ups," Dr Sangeeta urges.

IIMs & IITs

What are the essential qualities of being a Life Sciences entrepreneur? "It is important to have patience, and also being organized, disciplined, and knowledgeable. Entrepreneurs have to be sure of where they are heading at various stages in their endeavor, hence they need to stick to their set plan," she stresses.

She also voices that it is not necessary to have advanced degrees or have education from IITs or IIMs to be an entrepreneur.

"However, these qualifications bring in an advantage of being trained and supported in planning and execution during the early stage of a start-up. With the right kind of support system, anybody can be an entrepreneur in the life science industry," Dr Sangeeta emphasizes.

She feels that India does not have educational institutes with exceptional qualities, except only for a few institutes including

the IITs or IIMs.

"Candidates from such institutes are well-trained and also do exceptionally well in creative areas such as innovation and entrepreneurship. Hence, society favors them while others who are equally good, if not better, are ignored," she notes.

Start-up Incubators

Dr Sangeeta says that it is both advantageous and disadvantageous for start-ups working in an incubator or an accelerator.

She justifies, "Most of the start-ups are cash starved and are also in a mode of planning, organizing resources and execution. Whereas, incubators are well organized and dedicated to certain activities. If the start-up projects are dedicated and time-bound, it would be immensely beneficial to work in an incubator.

"There would be several occasions where a start-up may not function in an organized way, and would have to change plans due to several constraints. In such a situation, working in an incubator may hinder such activities. According to me, it is better to start elsewhere and grow, unless the projects are dedicated and time-bound."

When does selling a Life Sciences start-up make sense? "It would definitely be sensible to sell it when one sees value in the company, either through projects, collaborations or revenues. When there are products or technologies under development that would impact, it would be sensible to go ahead and convey this to a larger audience of venture funds and collaborators," she clearly says.

Biotech Start-up Boom

To kick-start biotech start-up boom in India, she adds that there must be more rewards offered for budding entrepreneurs.

"The rewards can be in the form of cash rewards, seed funds, and associations with other business partners. Also more news about the progress of the start-ups need to be shared in the media. Conferences should dedicate space for start-ups," she suggests.

Well, what would it take for a Life Sciences start-up to become India's next billion-dollar enterprise?

She adds, "Firstly the start-up needs to cater to an industry that can generate such revenues. The two focused areas are agriculture and health. The health sector is an ever challenging sector, and disease management would always be a priority area. Any exciting thoughts and technologies catering to this field may eventually turn out to be the next billion-dollar enterprise."

As a final thought Dr Sangeeta shares, "As a life sciences entrepreneur, it is exciting to venture out with offerings that can really impact the business scenario. It is challenging at every stage to make best of the opportunity, but certainly there are several hurdles one needs to overcome."

Common Entrepreneurial Mistakes To Avoid:

ï‚§ Lack of knowledge of market needs
ï‚§ Not having a goal
ï‚§ Lack of advisors or mentors
ï‚§ Not understanding Life Sciences business
ï‚§ Unmindful of investments consumption
ï‚§ Improper planning
ï‚§ Untimely execution of projects