Living a dream

At Advinus Therapeutics, the art of scientific research for the benefit of humankind is being honed to perfection

It is 2.30pm. In most other offices it's past the lunch hour, but here at the sprawling canteen of Advinus Therapeutics in Pune, the air is abuzz with activity and the aroma of good food. It seems to me that lunch extends way beyond the normal acceptable hours at Advinus. But I am wrong. Lunch, like everything else at Advinus, plays second fiddle to the scientists' quest for knowledge; today, people have been trooping in late because they were attending a talk on pharmacokinetics. The company, recognising the need for a flexible policy, allows for lunch anytime between 12:30 and 3:00pm. And as today, the atmosphere is always a heady brew of animated conversation and intense concentration on discovering new molecules.

It is this — the promise of unfettered and relevant scientific research — that has drawn people like 41-year old Sreekanth Rouduri back to India. After having studied and worked in the US for 12 years, Mr Rouduri joined Advinus Therapeutics in 2008 as head of the molecular and cellular biology group. He has been working at the company's state-of-the-art drug discovery centre in Pune ever since. He is not alone; more than two dozen scientists like him have returned to India, finding in Advinus a place to satisfy their scientific aspirations.

In fact the founders of the company, CEO and MD Rashmi Barbhaiya and chief scientific officer and executive vice president Kasim Mookhtiar, along with several other senior executives, have all spent several years studying and working in the US. Today, they live, breathe and dream Advinus.

Marking milestones

"People are our most precious asset and it is our commitment to develop them on a regular basis"
Rashmi Barbhaiya

Ask Mr Barbhaiya and Mr Mookhtiar about their work and they wax eloquent about their deep passion for discovering new drugs that will impact the lives of millions around the world. Mr Barbhaiya explains, "We returned to India to make a difference. We saw an opportunity here and felt we could contribute to global pharmaceutical research and development."

Mr Barbhaiya feels proud and privileged to be associated with the Tatas: "We have received help from varied quarters of the Tata group. In particular, I would like to acknowledge the support and guidance we have received from Mr Homi Khusrokhan [formerly managing director Tata Chemicals, now director, Advinus] and Mr R Gopalakrishnan [executive director, Tata Sons]."

In less than five years, Advinus has established a drug development centre of global repute in Bangalore with the capabilities and bandwidth to support investigational new drug (IND) filings and a safety assessment centre that is considered to be one of the best in Asia. No other organisation in India provides such comprehensive services under one roof.

Advinus has also built a world-class drug discovery facility in Pune that has attracted alliances with global pharma giants such as Merck, Novartis and Johnson & Johnson. Advinus is the first partner for these companies in India for drug discovery. One of these collaborative research programmes has already identified a drug candidate for development. It has received multiple success-based milestone payments from these partners. But most important of all, it has filed an IND application in June 2009 to start human clinical trial for a diabetes drug. "We are very proud of this achievement which came about in such a short time. From the time we started our pursuit for identifying a new molecule for treating diabetes to seeking government approval to the start of clinical trials, it took us about 30 months," says Mr Mookhtiar.

Though it will be years before this molecule can be sold as medicine, this is no mean feat. It is also a major milestone for Tata, adding one more dimension to the several ways in which the group is making a difference to the lives of people. In a few years from now, if and when this molecule goes commercial, it will bring in millions

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in the form of revenues; more importantly, it will help millions affected by diabetes around the world.

At Advinus Therapeutics, this is the mission. And the focus is on discovery and development of medicines for metabolic diseases such as diabetes and obesity, and inflammatory diseases such as asthma, chronic obstructive pulmonary disease (commonly known as COPD) and inflammatory bowel disease. The company is committed to discovering medicines for neglected tropical diseases, such as leishmaniasis, malaria and tuberculosis, which are generally ignored by drug companies in the developed countries.

Being a Tata company, Advinus also commands the trust of stakeholders, a crucial requirement in this field. "We deal with human lives, and people feel very comfortable working with a Tata enterprise as they are recognised for ethics and integrity," says Mr Barbhaiya.

Nurturing and retaining talent

Finding the right people though has been a tough task for two reasons: one, the field is new in India and two, there is a limited pool from where the company can source their team of multi-disciplinary experts.

"We are taking a lot of actions," says Mr Mookhtiar. "We have been able to attract over 25 overseas-trained professionals; we have internal programmes to streamline the raw talent towards what we are." As Mr Barbhaiya, Mr Mookhtiar and others in the top management are scientists themselves, the company recognises that the ambitions of their people are very different from those in general management and has therefore devised a training and nurturing programme to suit their temperament. "Our scientists are at the cutting edge of knowledge. The drugs that they discover today will be medicines 10 years later. To keep them abreast with the latest developments and techniques we do several things," adds Mr Mookhtiar.

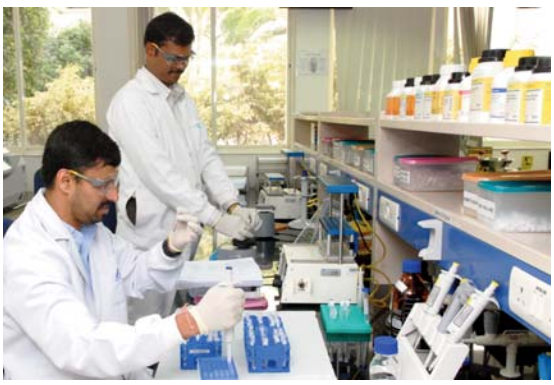
The Pune centre has a drug discovery school where each new entrant spends three to four months. The Bangalore centre has a finishing school. From time to time, at both the centres, distinguished professors engage employees on the latest research being done in distant parts of the world. Scientists and researchers are also encouraged to participate in and attend technical conferences around the world. "They go there with the express idea of getting new ideas, exchanging views and learning new ways of doing things," informs Mr Mookhtiar.

Both at the Bangalore and Pune facilities, postgraduate Advinians can pursue PhDs under the guidance of seniors, and earn their degrees from Andhra University and Manipal University. But as all research carried on at Advinus is confidential, they are assigned projects on the side that will allow them to publish their work. "We feel our bright people really deserve the opportunity to contribute at a higher level. This is one way to do that," says Mr Mookhtiar. "People are our most precious asset and it is our commitment to develop them on a regular basis," adds Mr Barbhaiya.

This philosophy extends to day-to-day work with flexible working hours and office transport available beyond office hours. The company understands research cannot follow timetables, and that new ideas need to be nurtured and incubated for them to develop into life-changing medical interventions.

Thus all project ideas for new research come from the scientists themselves. The winning proposal undergoes external validation before work begins on it. "For the scientists, this is a very big buy-in, and they go all out to make sure it happens as they are the champions of the idea," says Mr Mookhtiar. This helps

At the drug discovery centre in Pune the focus is on finding new therapies for metabolic, inflammatory and neglected diseases



The drug development centre in Bangalore provides services to pharmaceutical, biotech and agro companies

Fact file

Advinus Therapeutics was set up in August 2005 to discover and develop new therapies to serve unmet clinical needs. Its business operations are organised into drug discovery, drug development and agro development services.

Drug discovery centre, Pune: The 120,000sq ft drug discovery centre in Pune is dedicated to discovering drugs in three categories: metabolic diseases, inflammatory diseases and neglected tropical diseases.

Drug development centre, Bangalore: Located on an 8-acre campus with a 220,000sq ft state-of-the-art laboratory, the centre focuses on providing preclinical and early clinical development support to global pharma and agro companies.

Agro development services, Bangalore: About 3km away from the development centre, this offers services to agrochemical organisations in chemistry, physical-chemical analysis and safety assessment.

Total number of scientists: 345 (including chemists, molecular biologists, cell biologists, biochemists, toxicologists, computer scientists and in-vivo pharmacologists).

Number of patents filed: 10 (20 more in the pipeline).

Alliances:

- *For discovery:* Merck, Johnson & Johnson, Novartis, Genzyme and Drugs for Neglected Diseases Initiatives (DNDi), a non-profit drug research and development organisation founded by Doctors Without Borders.
- *For development:* About 70 per cent of all global pharma companies.

keep them motivated, and in the kind of research that Advinus does, that is very important because the rate of failure is very high. The company is very clear that failure is a part of the workplace ethic at Advinus and that it will never be held against the scientists.

What the company is very strict about is the need to maintain confidentiality. Mr Barbhaiya explains: "We never ask employees about their previous assignment. During the interview if someone begins to talk about what she / he is doing in the current job, we don't even recruit that person. As far as this subject goes, we have zero tolerance," says Mr Barbhaiya.

This no tolerance policy is critical because it directly impinges on the trust pharma companies have placed in Advinus. At the drug development centre in Bangalore, Advinus provides support to the drug development efforts of 70 per cent of the top global pharma companies. At the drug discovery centre in Pune, partners have brought their intellectual property into the collaboration. Mr Mookhtiar elaborates, "Our partners have chosen us for an alliance in India and entrusted us with their most precious commodity, their intellectual property. It is recognition of our quality of work, innovation and integrity. We are proud of that."

Advinus is looking beyond the conventional for cost and time benefits within the Tata group. One such step was to marry the nanotechnology expertise of Tata Chemicals Innovation Centre with the in-house drug discovery expertise to improve oral absorption of drugs. Similarly, it is also using supercomputer Eka, owned by Computational Research Laboratories of Tata Sons, in computer-aided drug design. Eka allows very fine modelling, and thus improves accuracy and increases the chances of success.

In a field where failure is a given, these measures are helping bring down the escalating cost of research and development. India's young, eager and hungry-for-success talent also plays a distinct advantage. Mr Barbhaiya elaborates: "As India does not have any past history of drug discovery, there is no past baggage or legacy that prevents young talent from pursuing new ways of doing things — something critical for innovation, which requires risk-taking."

So, what does one expect from Advinus in the future? It is a risky business but both Mr Barbhaiya and Mr Mookhtiar are convinced that the company is on track for a great future. "Don't be surprised if Advinus becomes another Tata Consultancy Services one day," says Mr Barbhaiya. "Right now, all we can say is *inshallah* (God willing); some day, someone will say *mashaallah*! (What a great achievement!) ●

Shubha Madhukar