

DR. B. SAHU, CEO & PRESIDENT, INNOVASSYNTH TECHNOLOGIES (I) LTD.

## 'In nucleosides, we are perhaps one of the best in the world'

To get an insight into the working of this emerging star of the R&D business, *Chemical Weekly* caught up with **Dr. B. Sahu**, CEO and President. Dr. Sahu, a doctorate in management from Indian Institute of Science, Bangalore and fellow in management from Wharton Business School, spoke at length about the current activities and future plans of his company. Excerpts from the interview:



### Tell us about the origins of Innovassynth Technologies (I) Ltd.

The parent company, Indian Organic Chemicals Ltd. (now Futura Polyesters Ltd.), was founded in 1962 by Mr. B.M. Ghia. An alcohol-based chemical manufacturing plant was set up at Khopoli (near Mumbai) in 1963. We diversified into polyesters in early 1970s. In the mid-1980s, when the software industry was beginning to show a lot of promise, we were among the first few companies to look at new concepts in the computer business. We diversified into software in 1986, with a company called Sonata Software Ltd., which was hived off as a separate entity in 1994. This venture gave us a new perspective to get into the service industry. In the mid-1990s, we realised that alcohol-based chemicals could not compete with chemicals made from petroleum feedstock. So we decided to close down the commodity chemicals operations. Based on our experience, we felt that the R&D business was the best business to venture into. We started expanding our laboratories and from 2002 we are full-fledged into this activity. That is how Innovassynth was born.

### What are the focus areas of Innovassynth and its main strengths?

Innovassynth offers the following four services: custom synthesis, contract R&D, contract manufacturing and toll manufacturing. We are very strong technically and our communication systems are very open. Our relationship with our customers is very good and we function as their extended business house. We are time-bound and quality conscious. At present, we are work-

ing in five areas, viz nucleosides, flavour & fragrance chemicals, pharma intermediates, fine & speciality chemicals and nutraceuticals. In nucleosides, we are perhaps one of the best in the world...

### What are these nucleosides?

Nucleosides are used for making amidites, which, in turn, are used for synthesising oligo-nucleotides, which have potential to

become the final medicines. Nucleosides are a totally new area and highly technology driven. It has the potential to become a very lucrative segment. With the advances in genetics, it would be possible to predict at what age one would get a disease. The new generation of medicines would be able to block the appropriate part of the DNA or RNA and completely cure these diseases. Till now, no medicines based on this therapy have come to the market, but there are about 16 products in the phase II and III clinical trials. A lot of research, worth-bns of dollars, is happening in this field.

The two leading research organisations in this area are US-based Isis Pharmaceuticals & Geron Corporation and both have been working with us for the last three years. We work as if we are their extended research arm, for developing raw materials for the final product. We are the only company in India manufacturing a wide range of protected nucleosides/amidites — both general purpose and specialised — at plant level in kilo-scale for Geron and others. We will be exclusively working on developing amidites for Isis and Geron for all their future compounds.

### Are you also involved in manufacturing oligonucleotides?

We do not want to get into manufacturing of oligonucleotides. The manufacturing process is highly mechanical, with less human skills involved. We have realised that for capital-intensive and machine-intensive projects, India is not the ideal place, as capital costs are very high here. We cannot compete with multinational companies, which have huge capacities. However, the big multinationals cannot manufacture labour-intensive products like protected nucleosides and amidites at the costs that we are able

to manufacture. Therefore, they have to rely on us for those products. One of the chemicals required to manufacture of oligonucleotides are called succinates. These are supported on a polymer base and sold to oligo manufacturers by Amersham (recently taken over by GE) among others. They are our regular customers.

### Please describe the other areas that you are currently working on?

The other areas include fragrance and perfumery chemicals, in which we basically undertake synthetic chemistry work for companies in the US and Europe. In pharma intermediates, we have a joint venture 'limited liabilities company' with Austin Chemical Company, US. Under this venture, we are involved in supplying raw materials for Phase 1, Phase 2 and Phase 3 trials and also for replacing present commercial suppliers of raw materials.

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In specialty chemicals, we work with many leading companies like Sigma Aldrich, Honeywell, Mitsubishi, etc for chemicals used in a wide range of applications, ranging from digital photography to various biomedical applications. Apart from these areas, we are also into nutraceuticals — an area in which very few chemical and pharmaceutical companies have ventured into. We have already developed 2-3 products, which are being marketed in US. One is synthetic guggulesterone (having cholesterol reducing property), which we manufacture at 98.6% purity level and at 100-kg scale. Another product developed by us in this area is hydroxyisoleucine (it increases insulin level). We are the only company manufacturing this product at 75% purity. We have a tie-up with a US company, which does exclusive marketing for these products in the US.

**So you do not market nutraceuticals in India?**

Nutraceuticals are very costly products. I don't think the majority of Indians would be able to afford it. The main markets for nutraceuticals are the US and Japan; even Europe is not a major consumer. In the US, it is a multi-trillion-dollar industry. So for Innovassynth, nutraceuticals is an 100% export-oriented business, which is in line with our strategy of focusing on low-volume, high-value exports.

***"We are in the right place with the right technology"***

**Tell us about your production and research facilities?**

We have five manufacturing facilities, apart from a plant manufacturing coloured chemicals. We also have a large contract manufacturing facility for Ciba Specialty Chemicals (Switzerland), in which we manufacture a specialty chemical exclusively for them since the last four years. We have five laboratories at Khopoli — one is for nucleosides, one for nutraceuticals and the rest are for pharma and other chemicals.

We also have two 'kilo-labs' — one for nucleosides and the other for non-nucleosides.

**What is Innovassynth's current turnover? Are there any plans to spin it off as a separate corporate entity?**

Last year, Innovassynth's turnover was around Rs. 18-19-crore. But this year, we are expecting it to be around Rs. 55-60-crore. This jump in turnover can be attributed to the fact that at anytime we are working on 30-40 chemistry projects and many projects have matured and gone into production in this period. Innovassynth is already a separate subsidiary. Within another 6-8 months, it will be separate company altogether.

**Tell us about the novel 'Life Science Alliance', which you have formed with Austin Chemical Company?**

Innovassynth, along with Shasun Chemicals and Drugs Ltd. and Suven Pharmaceuticals Ltd., have joined with Austin Chemical Company to form the 'Life Sciences Alliance'. The alliance helps us to jointly offer our services whenever a global pharmaceutical company scouts around to outsource some of its activities. The basic reason for this alliance is to

present a complete package of capabilities and facilities to a foreign customer. For example, while Innovassynth provides its R&D based non-GMP capabilities, Shasun provides its GMP infrastructure and expertise and Suven its clinical facilities. Similarly, the exclusive capabilities at each are shared for a common goal.

**Your comments on the Chinese chemical industry?**

We source many of our raw materials from China and therefore have to develop a good relationship with them. So we try to get into a win-win situation with these companies. We let them concentrate on their strengths and we concentrate on ours and together we try to win the US or European markets.

**Of the five areas you are currently working on, which would be your future growth drivers?**

According to me, nucleoside is a greenfield area — if it clicks, the sky would be the limit for us. We are in the right place with the right technology. In nutraceuticals also, the growth potential of some of the products we are currently working on, is quite enormous.