DNA MUMBAI CIVIC

City doc, Pune lab eye implant market

Rahul Chandawarkar

Vinay Agrawal, a Mumbai-based eye surgeon and entrepreneur, has broken new ground by using the polymer science technology from the Pune-based National Chemical Laboratory (NCL), a laboratory under the Council for Scientific and Industrial Research (CSIR), to manufacture ocular and maxillofacial implants.

The implants manufactured by Dr Agrawal's Biopore Surgicals — priced at a third of the cost of similar international products — are proving a boon for patients.

"I first came across ocular and facial implants while training abroad," Agrawal said. "But these were prohibitively expensive. This is when the idea of manufacturing them myself struck me."

Agrawal's search for the right technology ended in 2003 when he met scientists from the NCL's polymer sciences department. "We were fortunate to find an enthusiastic team of scientists at NCL comprising V Premnath, Ashish Lele, and Harsha Kapse," he said. "Premnath has the ability to understand an entrepreneur's mind. This proved to be a boon. The NCL team custom-built the products for us.

"The first product to get off the ground was the porous polyethylene ocular implant (artificial eyeball)," said Premnath. "We spent almost six months in the laboratory to get the twin features of porosity and strength right. The porosity helps the implant to integrate easily with the rest of the body. It also allows the surgeon to stitch a muscle on it comfortably. The next 18 months were spent developing the manufacturing process. An additional year was spent on trials by Biopore."

The second phase saw the development of several maxillofacial implants for the chin, forehead, jaw, cheeks and nose.

"We have an ISO certification for our manufacturing processes and are meeting international standards," Agrawal said. "The fact that we are offering our products at a third of the cost of competing international brands gives me great satisfaction. India always had the engineering talent. Now we have started the manufacturing process as well."

A NEW VENTURE TO ENABLE ENTREPRENEURS

Set up by the Council for Scientific and Industrial Research (CSIR) and supported by the department of science and technology of the government of India, the Venture Centre's basic objective is to enable entrepreneurs to make use of science and technological processes in the manufacture of innovative products.

The Venture Centre is holding its first ever 'NCL Technology Showcase', a day's seminar on polymer sciences covering the areas of super-absorbing polymers, silicones, membranes, and microspheres on Friday. Visit www.venturecenter.co.in for details.

Experts mull over foundation to get corporate funding