

BioServices attracts best practices

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Increasing pressures on R&D cost containment across the global pharmaceutical industry, has led to a paradigm shift in the approach of major pharmaceutical companies. Outsourcing has become the mantra of the industry and contract research has evolved into a huge market.

Employer Expectations

Qualifications Required

At present, the CRO segment in India mainly consists of contract research, contract manufacturing and clinical trials. The Indian market has companies doing clinical research and trials for the molecules developed in-house (captive CRO) like Eli Lilly. And there are organizations doing contract research and trials for other companies (independent CRO) like Quintiles Spectra, Siro Clinpharm, Syngene, etc. Aurigene, Shantha Biotechnics and Chembiotech are some of the other important companies. Syngene International, a Biocon group company, set in 1994 was India's first integrated CRO in the area of drug discovery. Midsize, presently serving over a dozen pharmaceutical R&D units in Europe and the US. Eli Lilly, Bharat Biotech and Shreya Biotechnics are some of the important contract manufacturing companies.

- Pathology
- Biochemistry or a related life science branch.

"Contract research is very innovative, capital intensive and involves lots of R&D. Further the field is not process but product driven and cannot be operated on a large scale," said a senior official at Aurigene Discovery Technologies Ltd, a Boston based contract research organization, with research facilities in Bangalore.

Besides contract research and manufacturing, India is also emerging as a global hub for clinical trials. "India is being projected to grow in this field on account of adequate patient population having a wide spectrum of diseases, qualified medical professionals, good communication network and IT capabilities," said VV Raghavan, managing director, Lotus labs, an independent Bangalore based contract research organization. "Clinical trial is a very data and quality intensive work and may involve high percentage of travel. The scope of any error is very limited and involves high degree of ethics both personal and professional, commercial, pharmaceutical, analysis

Selection Edge: Freshers

Contract Research Organization (CRO) market has great potential and offers tremendous career opportunities. "The Indian CRO market is currently growing at 20 percent per annum and has excellent growth opportunities," said VV Raghavan of Lotus Labs. Prior training on GCP, GMP, etc. Experience is a must

- Good subject knowledge
- Aware of the recent trends

The CRO industry is a major employer of medical and scientific staff and hence the demand for qualified personnel is on the increase. The potential is huge and the opportunities exist at every level, observed Nirupa Bareja of Biocon. "The potential is for real, the opportunity could be as big as 150 crore in year 2007-8," said Rajiv Gulati of Eli Lilly. "As on date, clinical research is still a sunrise industry in India and contributes just 0.7 percent to the global clinical research industry but this scenario is soon expected to change. India is tipped to be one of the major hot spots for clinical research in the coming decade. Analysts estimate that by the year 2010 India would contribute 20 percent to the global clinical research industry revenues," commented Shamiq Hussain, general manager, Clintec (India) International, a Europe based CRO. This optimism is bound to translate into a huge job market for the students.

In most of the companies, the standard procedure followed is inviting resumes through advertisements, screening and short-listing of the candidates, and then interviews. Nirupa Bareja of Biocon says, "from a qualifications perspective we look for post doctorates, doctorates, medical doctors, post graduates in the fields of organic chemistry, molecular biology, microbiology, biotechnology, pathology, biochemistry, pharmacology, etc depending on the job profile. At Biocon India in addition to the technical competency

trend

we look for a scientific analytical temperament (as a mandatory quality) in an individual. They must also be result oriented, team players with good interpersonal skills, innovative, performance driven, leaders oriented, creative services in 2002 was estimated to be \$1.2 billion and may grow to \$3 billion in 2008. "The global market for such services in 2002 was estimated to be \$1.2 billion and may grow to \$3 billion in 2008." said Dr Swaminathan of Aurigene. "We look for aspiring candidates who have a desire to learn and grow in this field" commented VV Raghavan of Lotus labs. "In the contract industry the people should be highly skilled and versatile to take up different projects and execute them at low cost in order to be competitive and effective," was the opinion of Raman Akella, head administration, Shantha Biotechnics, Hyderabad.

For recruitment many companies go to premier institutes like NCL, IITs, IISc, etc., in addition to recruitment through referrals, headhunters, advertisements, CVs received electronically and by mail etc. At the entry level prior experience is not always sought, though is sometimes preferred.

The manpower requirements for each project could vary and range from two people to a hundred people per project. The manpower need is typically dependent on the extent and the nature of outsourcing which is done to the CRO and is also dependent on the phase of the clinical trial work undertaken," observed Rajiv Gulati of Eli Lilly.

In any CRO the job categories depend on the nature of the contract service undertaken. Scientists in the field of synthetic organic chemistry, molecular biology and bioinformatics are required at Biocon. Aurigene looks for screening pharmacologists, chemical researchers and experts in the field of genomics, computational biology and bioinformatics when the project is in the initial stages of drug discovery. A few job categories at Shantha Biotechnics are fermentation, purification/process analysts (technical), quality assurance, registration/documentation personnel (regulatory), plant and process, quality assurance, operations personnel (management) and medical advisors. In a company conducting clinical trials the job categories could be multifaceted like coordinator, monitor, clinical investigator, research associate, clinical research physician, analytical chemists, trial materials manager, project manager, medical writers, data managers, documentation personnel, lab technicians, statisticians, etc.

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