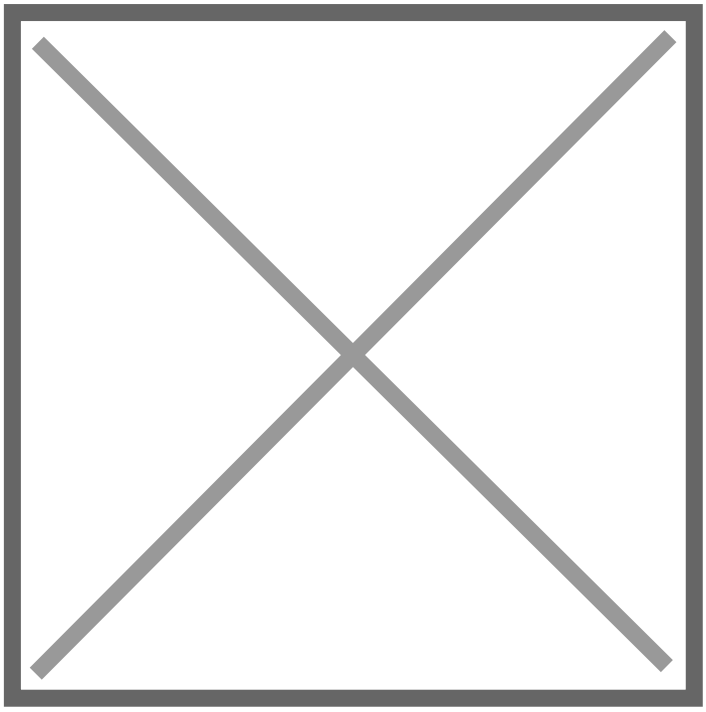
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12 May 2004 | News



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

Contract research and manufacturing Entry Level:

- MSc in organic chemistry
- Molecular biology
- Microbiology
- Biotechnology
- Pathology
- Biochemistry or a related life science branch.

Senior leading position:

Doctorate or post doctorate with experience in drug discovery and related fields

- Clinical trials
- Postgraduates in medicine
- pharmacology and pharmaceutical analysis

Selection Edge: Freshers

- Good subject knowledge
- Aware of the recent trends
- Willing to learn about other fields besides their core area
- Prior training on GCP, GMP, etc
- Experience not a must

Campus Recruitment: From premier institutes like NCL, IISc, IITs, etc

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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 Spectral, 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. It is presently serving over a dozen pharmaceutical R&D units in Europe and the US. Eli Lilly, Bharat Biotech and Shreya Biotech are some of the important contract manufacturing companies.

"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 drug discovery 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," commented Rajiv Gulati, managing director and chairman, Eli Lilly and Company (India) Pvt Ltd.

Quintiles, Specialty Ranbaxy, Siro Clinpharm, Eli Lilly, Clingene International (a subsidiary of the Biocon India group), Lotus labs, Clintec International, Pfizer, Novo Nordisk, Lambda Therapeutic Labs, Novartis, etc., are some of the companies conducting clinical trials in India.

The 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. "Market trends indicate that the CRO market is going to experience rapid growth in the coming years and will

become an indispensable part of the drug development process. 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

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- The global market for such services in 2002 was estimated to be $1.2 billion and may grow to $3 billion in 2008.
- India is being considered as a destination for contract research and manufacturing and other services that are needed for the growth of the biopharma segment.
- The contract research and clinical business in India during 2002-03 was Rs 135 crore. Quintiles Spectral, SiroClinpharm, and Syngene are the three key independent CRO players here. These three account for 71 percent of the market.
- Top 10 pharma companies may increase their primary screening of compounds from $10-15 million now to $200 million per year in another two years.

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, leadership oriented, creative out of the box thinkers and passionate about the job". This sentiment is echoed by most of the company heads. "We look for candidates having flexible thinking, a confident attitude and an aptitude for learning about other fields besides their core area," 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.

Rolly Dureha

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