

Clinical Research Education in India

By Habib Ibrahim and Narmadha Sambasivam

The growth of clinical research in India requires educating numerous investigators, study coordinators, site monitors, project managers, and other personnel in good clinical practice (GCP) and other aspects of managing, supervising and conducting clinical trials. As a result, over 25 Indian educational organizations now offer courses on clinical research. For better or worse, there is much more entrepreneurship than standardization in the educational programs or certification of the graduates.

Wide Variety

A wide variety of different organizations offer clinical research education. Some are new, while others are well-established. Some are small, while others are large. Some are accredited, but most are not. Some specialize in clinical research, while others offer numerous programs. Some are non-profits, while others are for-profit. Some employ full-time instructors from academia, while others utilize part-time instructors from industry. Many are in centers of clinical research such as Mumbai and Bangalore, but others are elsewhere. A few are affiliated with organizations in the U.S. or Europe, but most are not.

The educational programs also take many forms. Some employ traditional classroom instruction, while others use distance learning technology. Some emphasize lectures, while others emphasize hands-on experience. Some are full-time and others are part-time. Some take weeks, while others take years. Some offer certificates, others offer diplomas (3 to 12-month programs), and yet others offer degrees (1 to 3-year post-graduate programs). The cost of (even similar) programs varies wildly, from 3,000 INR to 450,000 INR (approximately US\$75 to US\$12,500). Nevertheless, all of the programs have a practical orientation. Interestingly, none offer a specialized program on bioethics.

Table 1 describes the major clinical research education programs in India.

Questions to Ask

Before entering a clinical research program, potential students should ask at least the following questions:

- What is the educational process?
- What instructional materials (e.g., books) are employed?
- What time (number of hours and calendar) is required?
- What courses are offered and what material is covered in them?
- What are the qualifications and experience of the faculty and management?
- How many students are there in the classes?
- How are students evaluated?
- How many students have entered and graduated from the program, over how many years?
- What is the employment success of the graduates?
- What are the costs, including books and materials?
- Do graduates receive a certificate, diploma or degree?

- Is the educational program or organization affiliated with, or accredited by, a university or other recognized educational organization?
- What are the names and contact information of some current students, graduates and their employers?

These questions are relevant for students in any country. Employers will also find them useful. A directory of international training and education programs is at <http://www.firstclinical.com/directories/training.html>.

Table 1. Clinical Research Education Programs in India*

<p>Academy for Applied Research & Training in Healthcare in India, Kolkata http://www.aarthindia.org/ Cert, 50 hours full-time classroom, 5,000 INR Dip, 1,500 hours classroom + on-line learning + dissertation work + 2 months internship, 120,000 INR First institute in the eastern region.</p>
<p>Academy for Clinical Excellence (ACE), Mumbai http://www.aceindia.org/ Cert, short-term classroom, n.a. Dip, 28 days part-time classroom or CD-ROM, n.a. Affiliation with the major pharma players.</p>
<p>Bilcare Research Academy, Pune http://www.bilcareacademy.com/ PG Dip, 12 months full-time classroom, n.a. Opened in 2007. Affiliation with ACRP.</p>
<p>Bioinformatics Centre, University of Pune, Pune, Gurgaon, New Delhi, Chennai, Bangalore, Hyderabad and Bhubaneswar http://clinicpune.org/ PG Cert, 6 months part-time classroom, 60,000-70,000 INR First university course in India for clinical research.</p>
<p>Bioinformatics Institute of India (BII), Noida http://www.bioinformaticscentre.org/ Cert, 3 months on-line, 5,000 INR Cert, 12 months distance, 10,000 INR Cert in bio-informatics 6 months classroom, 30,000 INR Wide variety of courses from clinical research to bioinformatics.</p>
<p>Catalyst Clinical Services Pvt. Ltd., Delhi and Pune http://www.catalystclinicalservices.com/ Cert, 6 months part-time classroom, 50,000 INR Cert, 6 months, distance, 7,500-9,600 INR Dip, 6 months distance, 6,200 INR Cert, short-term, workshop based, 5,000-10,000 INR Publishes "Clinical Quest," India's first monthly publication for clinical research professionals. Over 2,300 graduates.</p>
<p>Center for Advancement in Health Sciences (CAMS), Mumbai http://www.pexa.org/ PG Dip, 6 months full-time or part-time classroom or distance learning, 45,000 INR MBA Clinical Research, 2 years full-time or part-time classroom, 260,000 INR</p>

MBA program is recognized by UGC and is a collaboration with Tilak Maharashtra University.
<p>Cliniminds, New Delhi http://www.cliniminds.com/ PG Dip, 6 months classroom fulltime, 125,000 INR PGP, 3 months distance, 15,000 INR PGP, 6 months classroom, weekend 85,000 INR Adv. PG, 12 months distance, 28,000 INR PGP, Pharmacovigilance, distance, 15,000 INR PGP, Quality Assurance, distance, 15,000 INR Cert, BA/BE, distance, 15,000 INR Established in 2004. Accredited by Pharmaceutical Society of India.</p>
<p>CRO Careers, Bangalore http://www.crocareers.in/ Cert, 12 weeks distance, 9,500 INR Cert, 12 weeks part-time classroom, 28,500 INR Established in 2007. Offers free introductory training by email.</p>
<p>Golden Gates Professional Educational Institute, Bangalore http://www.goldengatesedu.com/ Dip, 12 months part-time classroom, 50,000 INR MSc, 24 months part time classroom, 120,000 INR Affiliation with Vinayaka Mission University.</p>
<p>IGNOU – ICMR, Delhi http://www.ignou.ac.in/ http://icmr.nic.in/ Cert, 6 months, n.a. (announced) Partnership between Indian Council for Medical Research and Indira Gandhi National Open University. Latter is India's largest university for open and distance education.</p>
<p>Institute of Clinical Research India (ICRI), New Delhi, Bangalore and Ahmedabad http://www.icriindia.com/education.htm PG Dip, 12 months full-time or part-time classroom, n.a. MSc, 24 months full-time classroom, n.a Affiliations with Cranfield University, UK, The Institute of Clinical Research, DIA and CenterWatch. Most clinical research students and graduates in India.</p>
<p>Inter-Ed Faculty for Clinical Research - India (IFCR - India), Kochi, Mumbai and Pune http://www.ifcr.in PG Dip, 12 months full-time (6 months classroom & 6 months clinical internship), 415,000 INR Established in 2005. Recognized by Prince Edward College, Canada.</p>
<p>Lotus Academy, Bangalore http://www.lotusacademy.co.in/ Cert, 6 months full-time classroom, 125,000 INR Cert, 3 months full-time classroom, 75,000 INR Cert, 3 months part-time classroom, 40,000 INR PG Dip, 12 months full-time classroom, 100,000 INR PG Dip, 12 months part-time classroom, 75,000 INR Joint venture between Lotus Labs Pvt Ltd, a leading CRO, and Lab India Instruments. Offers hands-on training with bioanalytical equipment.</p>
<p>Nizam's Institute of Medical Sciences (NIMS), Hyderabad http://nims.ap.nic.in/</p>

Msc, n.a.

Recent collaboration with William Harvey Research Institute, London.

Sikkim Manipal University, Manipal

<http://www.dde.smuhmts.edu>

MSc, 24 months distance, 80,000 INR

DEC-approved. Research project, internship and SAS training available

* Cert – Certificate; Dip – Diploma; MSc – Master of Science; PG – Post Graduate; PGP – PG Program; Adv. PG – Advanced PG Program; AICTE – All India Council for Technical Education; UGC – University Grants Commission; DEC – Distance Education Council; ACRP – Association of Clinical Research Professionals; DIA – Drug Information Association; n.a. – Not Available. Fees are approximate.

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