

AP's Centers of Excellence

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Andhra Pradesh has a large pool of scientific and technical manpower. It is home to a host of knowledge-driven research institutions. Over 1,100 students pass out every year from 9 universities offering courses in biotechnology. The centers of excellence (CoEs) in the state include well established national research institutions like Indian Institute of Chemical Technology (IICT), Centre for Cellular & Molecular Biology (CCMB), Centre for DNA Fingerprinting & Diagnostics (CDFD), the National Institute of Nutrition (NIN), the International Crops Research Institute for Semi-Arid Tropics (ICRISAT), Directorate of Oilseed Research, Directorate of Rice Research, LV Prasad Eye Institute, University of Hyderabad, Acharya NG Ranga Agricultural University, Andhra University, Waltair and many more like the National Academy of Agricultural Research Management (NAARM), Dr Reddy's Research Foundation (DRF), Aurobindo Research Centre, Central Tobacco Research Institute, Nizams Institute of Medical Sciences, Centre for Studies in Bioterrorism and Public Health Policy, Centre for Liver Research & Diagnostics (Deccan College of Medical Sciences), School of Life Sciences, Nagarjuna Agricultural Research & Development Institute, Central Research Institute for Dryland Agriculture (ICAR) and Centre for Plant Molecular Biology (CPMB).

Indian Institute of Chemical Technology (IICT)

Indian Institute of Chemical Technology has world class expertise in frontier areas of organic synthesis, catalysis, chemical process design, modeling and simulation. It offers globally competitive, environmentally friendly technologies for drugs, agrochemicals, organic and inorganic chemicals etc. Equipped with state-of-art analytical instrumentation, multipurpose pilot

plants and IT systems for process analysis, simulation and optimization, IICT has 300 highly qualified scientists and technologists supported by 250 technical officers and 300 research scholars. The institute offers quick, cost-effective, high-end knowledge based services to clients in the form of contract research, consultancy and technical services. Its client base extends to several leading multinationals like DuPont and Merck and international institutions like WHO and NIH.

Centre for Cellular & Molecular Biology (CCMB)

Declared a Center of Excellence by UNESCO's Global Network of Molecular & Cell Biology, the Centre for Cellular & Molecular Biology provides state-of-art facilities like confocal scanning, DNA sequencing, micro array/DNA chips and proteomics. Responsible for 1200 research papers and 14 patents in India and abroad, it played a key role in development of India's first recombinant DNA-based vaccine. CCMB conducts research in new areas such as gene therapy, drug delivery systems and the human genome using advanced DNA technologies and has collaborations with international agencies such as Imperial Cancer Research Fund (UK), Volkswagen Foundation (Germany) and the National Institute of Health (USA).

Centre for DNA Fingerprinting & Diagnostics (CDFD)

The Centre for DNA Fingerprinting & Diagnostics is equipped with world class state-of-the-art instrumentation and computing infrastructure to facilitate working in frontier areas of life sciences research. Its Bioinformatics facility, with more than 25 data banks, is the Indian node of the European Molecular Biology Network (EMBNET). CDFD's major service components involve DNA fingerprinting, diagnostics, genome analysis and cytogenetic, bio-chemical and molecular diagnosis. It conducts human resource training and development through bioinformatics internship program for graduates and 'DNA play centers' for children.

National Institute of Nutrition (NIN)

The National Institute of Nutrition is a flagship institution of the Indian Council of Medical Research (ICMR). Involved in international studies and R&D programs, the institute has the best animal house in India for in-house and collaborative drug trials. It offers doctoral programs recognised by leading universities in India. It has excellent facilities for undertaking laboratory investigations covering a range of specialities like biochemistry, pathology, immunology, microbiology, toxicology. The institute is an internationally recognized center for advanced training courses in nutrition and laboratory animal sciences.

International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)

The International Crops Research Institute for the Semi-Arid Tropics holds in trust 113,500 accessions, humanity's largest collection of different varieties of food crops at its gene bank at Patancheru, near Hyderabad. Supported by over 50 Governments, foundations and development banks, ICRISAT has an annual budget of about \$24 million. With a strength of approximately 1200 staff members, the institute excels in strategic research-for-development on global issues and on international exchange of knowledge, technologies and skills. It houses a Future Harvest Centre of the Consultative Group for International Agricultural Research (CGIAR). Its national research programs are strengthened through training, apprenticeships, establishment of research networks and information exchange.

Directorate of Oilseed Research

The Directorate of Oilseed research is engaged in basic and strategic research in three oilseed crops viz. castor, sunflower and safflower. It is associated to the Indian Council of Agricultural Research (ICAR).

Directorate of Rice Research

Directorate of Rice Research (DRR), formerly All India coordinated Rice Improvement Project (AICRIP), was established by the Indian Council of Agricultural Research (ICAR) in 1965 with its national headquarters at Hyderabad to organize and coordinate multi-location testing of genetic lines and technologies for crop production and protection generated across the country. The project was elevated to Directorate of Rice Research in 1975 with an added mandate of research in the thrust areas of irrigated rice. The Directorate continues its multi-location All India Coordinated Rice Improvement Programme (AICRIP) with active partnership of 44 funded cooperating centres affiliated to State Agricultural Universities (SAUs), State Department of Agriculture and other Research Institutes of ICAR. Besides, over 50 voluntary centres participate in this multi-location testing program.

LV Prasad Eye Institute

LV Prasad Eye Institute (LVPEI) is a comprehensive eye health facility located in Hyderabad, India. Founded in October 1986 by eminent ophthalmologist Dr Gullapalli N Rao, the Institute has evolved into a world class organization, with six main areas

of focus: comprehensive patient care, clinical research, sight enhancement and rehabilitation, community eye health, education, and product development.

From the beginning the focus has been on extending equitable and efficient eye care to the underprivileged. The institute's charter aims at providing 50 percent of its surgical services free of cost to the economically disadvantaged. In collaboration with the World Health Organization (WHO) and the International Agency for the Prevention of Blindness (IAPB), we have designed and implemented many innovative community eye health programs. Each day, 200 people who cannot afford eye care, receive care from some of the best eye health professionals, while hundreds more benefit from LVPEI's rural affiliates and satellite clinics in urban slums.

The cornerstone of progress in medical science is research and LVPEI collaborates with premier institutions globally in this area. The research program puts cutting edge technology like stem cell transplantation, to clinical application. We have also developed innovative applications of lasers to treat corneal and retinal diseases, while evolving unconventional approaches to glaucoma treatment and conducting frontline research into the molecular genetic basis of eye diseases.

University of Hyderabad

University of Hyderabad is a premier institute of post-graduate teaching and research, established by an Act of the Parliament of India in 1974 as a Central University. Over the years, University of Hyderabad has emerged as a top ranking institute of higher education and research in India.

The "objects of the University" as envisaged in the Act are: "to disseminate and advance knowledge by providing instructional and research facilities in such branches of learning as it may deem fit and by the example of its corporate life, and in particular to make special provisions for integrated courses in humanities and science in the educational programmes of the University and to take appropriate measures for promoting inter-disciplinary studies and research in the University."

With the view to increase opportunities for higher education to a wider section of our people, the University has introduced five specialized post-graduate programs under Distance

Education . These courses are in the areas of Computer Science, Project Planning & Management, Environment Studies, Translation Studies and Human Rights. The admission announcement for these courses is normally released in leading dailies in October every year.

Acharya NG Ranga Agricultural University

The Andhra Pradesh Agricultural University (APAU) was established on June 12, 1964 at Hyderabad. O Pulla Reddy, ICS (retired) was the first Vice-Chancellor of the University. The University was formally inaugurated on March 20, 1965 by late Lal Bahadur Shastri, the then Prime Minister of India. Another significant milestone was the inauguration of the building program of the University by late Indira Gandhi, the then Prime Minister on June 23, 1966.

The University was renamed as Acharya NG Ranga Agricultural University on November 7, 1996 in honor and memory of an outstanding Parliamentarian Acharya NG Ranga, who rendered remarkable selfless service for the cause of the farmers and is regarded as an outstanding educationist, ryot leader and freedom fighter.

Andhra University, Waltair

Andhra University is a premier university in the state of Andhra Pradesh. Its mission is to achieve excellence in teaching and research, to preserve and generate knowledge, to cultivate resolute moral values, to develop and enhance human resources, to improve the quality of life and contribute to sustainable development of the region and the nation in harmony with our culture, heritage and environment.

Andhra University was established by the Andhra University Act of 1925 passed by Madras State Assembly during the British Raj. It was first established as a residential University with 20 researchers and 6 professors in Vijayawada and later moved to Waltair. It temporarily moved to Guntur during World War II. It has 5 post graduate centers and 146 affiliated colleges. Its jurisdiction is limited to the districts of Srikakulam, Vijayanagaram, Visakhapatnam, Toorpu Godavari, and Paschima Godavari.