

INTRODUCTION TO CENTRAL RESEARCH LABORATORY



MSA UNIVERSITY CENTRAL LABORATORY FOR RESEARCH



Central Research Laboratories in October University for Modern Science and Arts:

Proud of the leading role of October University for Modern Sciences and Arts in the preparation of distinguished research cadres out of its belief in the importance of scientific research as a locomotive for environmental and community development · Prof. Dr. Nawal El-Degwy, Chairman of the Board of Trustees established research laboratories at the highest level of specialization and modern technology, which includes research laboratories (biotechnology and molecular biology - bioinformatics services - chemistry - dentistry) to encourage researchers in various faculties of the university to take advantage of the possibilities available in research laboratories as well as to provide research and scientific services to researchers from outside the university in addition to the sector Industry and Agriculture.

Research Services Provided by Research Laboratories at the University:

- **Biotechnology and Molecular Biology Laboratory:** The Molecular Biology Laboratory contains the latest PCR devices required for qualitative and quantitative evaluation of genes using fluorescent dyes and methods of extracting protein from different tissues, whether animal, plant or bacterial, as well as electrophoresis devices for nucleic acids or proteins extracted and image analysis devices. DNA or protein separated and isolated, as well as the latest incubation devices for microbiological environments or plant tissue culture, in addition to modern laboratory methods to isolate and characterize genes.
- **Bioinformatics Services:** The field of bioinformatics is the second arm of the field of biology in general. Changes in genetic sequences by bioinformatics and their association with genebanks and different search methods in databases, whether genebanks or biobanks.
- **Dental Research Laboratory:** The dental research laboratory contains the latest devices that serve and support dental research, where there are devices to pass samples and casting station and the work of wax blocks and dyeing devices for modern samples and there are the latest devices microtom for bone samples and also includes a microscopic image analysis device in addition to this To the latest hardness, tension and shear strength measuring devices for different composition materials, including materials that are included in the composition of biological materials (Biomaterial) or that enter into industries in general, whether plastic, glass, paper, rubber, foam .
- **Chemistry Research Laboratory:** The Chemistry Laboratory provides various chemical analysis services that serve all fields (science, pharmacy, agriculture). It contains the most accurate devices (Anderson Cascade Impactor, HPLC, UPLC / MS-MS and Ultrasonicator) in addition to the availability of modern devices such as fluorometers, infrared and other basic research devices needed by researchers.