

Research

1. Purpose

The purpose of the research plan is to guide scientific research in the Faculty of Medicine at Badr University so that it:

- Serves **community health needs** and helps solve medical problems.
 - Aligns with **Egypt's Sustainable Development Strategy 2030**.
 - Enhances the **quality and competitiveness of research** at the national and international levels.
 - Supports **evidence-based healthcare improvements** in university hospitals.
 - Strengthens collaboration between **academic departments, research institutions, and international partners**.
 - Improves the **academic ranking of the faculty and the university**.
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2. Vision

To achieve excellence and become one of the strongest research institutions in Egypt and the Middle East, elevating scientific research to become a global center of expertise in medical research that attracts researchers worldwide and contributes to improving the academic ranking of the faculty and the university.

3. Mission

Producing distinguished scientific research aimed at improving the health of citizens.

4. Domains of Interest (Research Domains)

Main research areas identified in the plan include:

1. Infectious Diseases Research

- COVID-19 and respiratory viruses

- Viral hepatitis (HBV, HCV)
- HIV
- Antibiotic resistance
- H-pylori resistance
- MRSA, VRE, and CBRE colonization

2. Diagnostics and Biomarkers

- Novel biomarkers for chronic hepatitis B
- HCC biomarkers
- Diagnostic biomarkers for colorectal cancer

3. Cancer Research

- Oncogene mutations in pancreatic mucinous neoplasm
- Immunohistochemistry in cancer diagnosis and prognosis

4. Stem Cell Research

- Stem cells and liver fibrosis
- Stem cells in Parkinsonism and osteoarthritis
- Stem-cell derived exosomes

5. Precision Medicine

- Precision medicine in inflammatory bowel disease (IBD)

6. Microbiology, Parasitology & Molecular Medicine

- HCV with immune disorders
- miRNA in diabetic nephropathy
- Microbiota role in human diseases

7. Pharmaceutical and Nanotechnology Research

- Histopathologic features related to drug experimental studies
- Nanotechnology in pharmaceutical research

8. Community and Public Health Research

- Obesity control initiatives
 - Life sciences and global health
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5. Goals

The strategic goals of the research plan include:

1. **Increase research activity** to reach a higher level than the global average in relevant research areas.
2. **Increase research funding and income** through national and international funding sources.
3. Establish **industrial partnerships** for funding, technology transfer, and commercialization.
4. Improve the **success rate of publications and research funding proposals**.
5. Expand **postgraduate programs (MSc and PhD)** and increase the number of graduates.
6. Align research activities with **Egypt Vision 2030**.
7. Improve **faculty and research staff competencies** through training in research, writing, and publishing.
8. Increase **participation in international conferences and scientific events**.
9. Ensure commitment to **research ethics and principles**.
10. Provide **incentives and logistical support** for researchers.