

FOM-SCU-Plan of Scientific Research

Introduction:

It is well known that the health care system relies on health research to develop, expand and improve. Research provides the evidence base to improve prevention, treatment and the effectiveness of health care. It leads to innovations that improve diagnosis and treatment, and generates the growth of new industries.

Health and medical research delivers new insights into the human condition and the processes that lead to ill health. Universities research institutions should strongly contribute to this international effort, and this would reflect on both individual and community health.

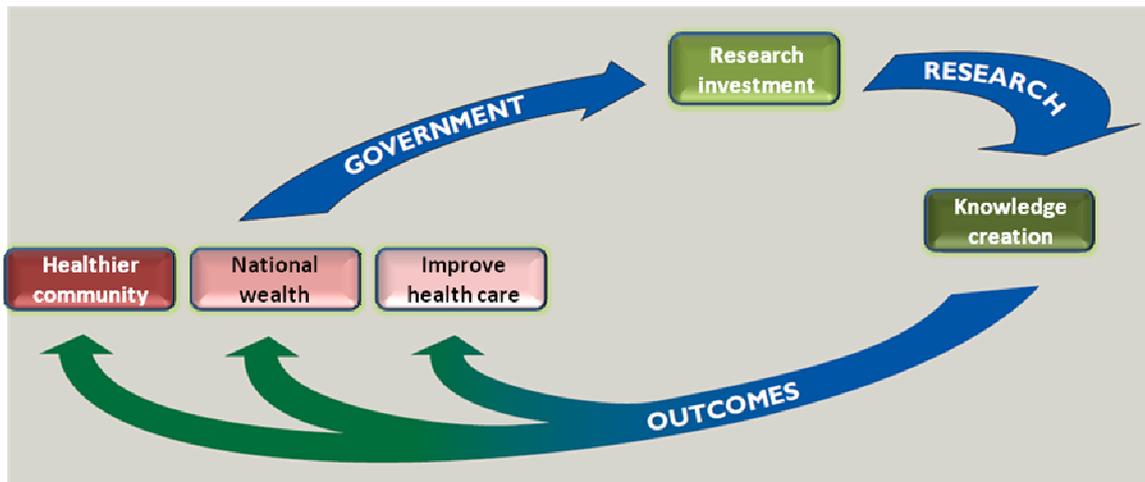
Universities research institutions are the leading health research agencies that face the health challenges in any country. They must fund the best and most relevant research to improve health of all people and adopt the outcomes of health research conducted elsewhere to improve the actions of health professionals and the health care system. Furthermore, Universities research institutions should provide leadership in the ethical framework in which health service is delivered and researches are conducted; and work to ensure that the discoveries of medical research contribute to growth of industry sector.

One of the main characters of Faculty of Medicine at Suez Canal University (FOM-SCU), its curriculum is community oriented and community based curriculum. So, it is very important for FOM-SCU plan to be directed towards the community of Suez Canal region and help in solving its health problems. FOM-SCU-Plan of Scientific Research is charged for protection of health ethics and this plan presents a stronger commitment to action in promoting and ensuring a better ethical behavior in health and medical research. FOM-SCU-Plan of Scientific Research will serve our community through the support of excellence in all aspects of research. We aim to improve the health and wellbeing of our people, now and into the future.

The ultimate goal of our plan is to emphasize the translation of research into policy and practice, by supporting research ideas that solve priority health problems which

will reflect on public health, clinical applications, and national wealth, via the virtuous cycle.

THE VIRTUOUS CYCLE



VISION: The best possible scientific research for prevention and treatment of health problems with high priority in our region

MISSION: To ensure excellence in research, research and health ethics, and health services for all

VALUES

FOM-SCU-Plan of Scientific Research adheres to and promotes the following values:

Excellence: Ensuring research excellence through peer review and expert advice, performance monitoring and reporting.

Engagement: Encouraging local, national and international participation, partnerships, consultation, collaboration, and communication.

Relevance and responsiveness: Ensuring that the organization is prepared and able to respond appropriately to both immediate and longer term challenges and issues in scientific research.

Balance: Supporting all forms of research related to FOM-SCU-Plan of Scientific Research including molecular, cellular, and clinical research targeted at individual and community health.

Impact: Promoting policy, practice, commercial impacts and ultimately patient health.

Leadership: Promoting the benefits of medical research, the use of evidence in advice and the highest possible ethical standards.

Accountability: Operating at the highest professional and transparent standards in accordance with relevant legislation and guidelines.

OBJECTIVES

FOM-SCU-Plan of Scientific Research will be applied for a period of three years (2014-2017).

The objectives have been established to meet the challenges of the current and future needs whilst maintaining the stated vision and values of the faculty. Achievement of these objectives is the combined responsibility of the faculty leadership and the related principal committees.

Strategic Objectives:

1. To raise the standard of individual and institution capabilities of performing research.
2. To foster development of consistent research standards between our and international level
3. To foster medical research and training and public health research and training among the faculty members
4. To foster consideration of ethical issues relating to medical research

References of the research plan:

The following was taken into consideration, while preparing the FOM-SCU research plan:

- The National Strategic plan of scientific research
- Suez Canal University Strategic plan of scientific research
- The most common diseases in Suez Canal Region

The Research and Health Priorities

The major platform of the FOM-SCU-Plan of Scientific Research priorities is promoting and maintaining good health. The plan is well positioned to take a lead agency role in the “Health” priority. It is also able to make significant contributions to other priority areas and has developed an arrangement for the implementation of other local research priorities that is incorporated into this institution plan.

Research priorities have been identified by government, local research results and major stakeholders. Based on the data available from the international reports and reviews of WHO, international scientific federations and societies, national reports of

Egyptian MOH and research institutions, and newly reformed data-base of FOM-SCU, the plan committee has identified a range of health issues that are important in the timeframe of this plan.

The three suggested topics for research are:

1. Diabetes Mellitus
2. Hepatitis C infection
3. Oncology

Rationalization of those health priorities:

Although Egypt was reported to have the largest epidemic of hepatitis C virus in the world and included in the world top 10 countries in prevalence of diabetes in addition to the high prevalence of different types of malignancies, nevertheless; the recently reformed data base of FOM-SCU demonstrated that less than 20% of the international publications of our institution were designed to investigate these top priority health problems. This inconsistency between ongoing researches and health needs prompted us to focus on those three categories of health challenges in this contemplated FOM-SCU-Research Plan.

Diabetes:

According WHO and international federation of diabetes, Egypt is included in the world top 10 countries in prevalence of diabetes. In 2008, the prevalence was estimated to be 4.07% of the general Egyptian population. The prevalence increases with age, to reach 19.8% among population aged 50-59. About half of all diabetes related mortality in this region occurs in people under the age of 60 years. In 2010, the prevalence decreased slightly to be 3.15% according to the WHO statistics, with total number of deaths of 11,432. In spite the total prevalence has decreased, but the rapidly increasing & ageing population in Egypt will have the largest number of people with diabetes in the region by 2030 estimated by 6,726,000 with approximately 4 million patients increase than the year 2000. Such dramatic increases will have significant health and cost implications on the country.

Hepatitis C infection

Egypt has the largest epidemic of hepatitis C virus (HCV) in the world. The released Egyptian Demographic Health Survey tested a representative sample of the entire country for HCV antibody. The sample included both urban and rural populations and included all the governorates of Egypt. Over 11,000 individuals were tested. The overall prevalence of positive people for antibody to HCV was 14.7%. Egypt has a very high prevalence of HCV and a high morbidity and mortality from chronic liver disease, cirrhosis, and hepatocellular carcinoma. Approximately 20% of Egyptian blood donors are anti-HCV positive. Egypt has higher rates of HCV than neighboring countries as well as other countries in the world with comparable socioeconomic conditions and hygienic standards.

Oncology:

The most frequent cancers in Egypt are bladder cancer in male and breast cancer in female. There is a male predominance in cancer incidence with a ratio of 1.4:1. Although males constitute 51.1% of the Egyptian population, yet they contribute to 58.3% of the cancer population. This denotes that males in general are at a higher risk than females to develop cancer. Conversely, in developed countries, this male predominance is less striking, with a ratio of only 1.1:1 in USA. The leading cancers in Egyptian patients are the urinary bladder (32.67%), gastrointestinal tract (22.24%) breast (13.15%) and lymphoma (9.8%). The profile of cancer in Egyptian patients has some features in common with that in developed countries, other features similar to developing countries in addition to some specific features of its own. Thus similarity to the developed countries includes the high incidence of breast cancer and gastrointestinal cancer, and the infrequency of cervical cancer. Whereas, similarity to the pattern in developing countries includes the infrequency of colorectal, lung and prostatic cancers which are related to diet, heavy smoking and aging of population respectively. The three cancer patterns which are peculiar to Egyptian patients are, the high frequency of bladder cancer related to Schistosomiasis and the high frequency of malignant lymphoma and cancer of pharynx possibly related to viral infection and malnutrition

FOM-SCU-Action Plan of Scientific Research

Topic	Objectives	Activity	Period	Responsibility
Hepatitis C	Early detection Prevalence Risk Factors Methods of Management	-Determination of Hepatitis prevalence in the region -Different types of the disease -Research to develop new methods for early detection and management of hepatitis C -Study the causes, and methods of diagnosis of hepatitis C -Prevention and management of Hepatitis C	2014-201 ^Y	Medicine, Tropical medicine, Microbiology, Public health, Pharmacology departments
Diabetes mellitus	Prevalence, causes, methods of diagnosis, prevention and management of DM	-Determination of DM prevalence in the region -Different types of the disease -Causes of the diseases -Methods of diagnosis -Prevention & Management	2014-201 ^Y	Medicine Public health Family medicine Pharmacology Departments
Oncology	Prevalence Early Detection Diagnosis Management	-Study the prevalence and causes of different malignancies in the region -New research to early detection and new methods for diagnosis -Study the use of natural compounds for prevention & treatment New methods for treatment	2014-201 ^Y	Oncology dept Surgery Family Medicine Public health

Mechanisms to assess the annual performance

The following measures will be used for assessing the performance:

- Research projects funded by national and international agents
- Number and quality of published papers
- National and international awards given
- Number of master and Ph.D. registered in the field

Impact measurement:

- Diseases Data base availability
- Availability of new methods of diagnosis and treatment
- Cure rate should increase at least by 5% annually
- Publications in international journals should increase by at least 10%

Research infrastructure

The FOM-SCU-Plan of Scientific Research committee will play a role in facilitating access for the faculty researchers to state-of-the-art facilities and equipments and providing incentives for cooperative development of research infrastructure particularly for the researches belong to the topics of FOM-SCU-Plan of Scientific Research.

Conclusion:

The true challenge in any medical research plan is to ensure that new knowledge is captured for the benefit of health, through new diagnostics, new products, new therapies, evidence informed policy development, and evidence based best practice in care delivery. The selected areas of research which represent the major proportion of the burden of diseases in our community will be the subjects of focus for the FOM-SCU-Plan of Scientific Research.

Owing to the unique vision and mission, FOM-SCU-Plan of Scientific Research will help patients meet these opportunities. We need to make sure that identification and supporting of the best researches and researchers are feasible. These actions will result in building excellence in research approaches, developing more robust means of supporting priorities, and ensuring that the gaps between knowledge generation and better health and national wealth are bridged more efficiently and effectively.

We have an ambition to be the national and probably international benchmark for supporting research, providing evidence based advice to the individual patient as well as the community under the umbrella of ethical standards.