



**Governing Council
Sixtieth Session**

**GC/60/20
08/03/2018**

*Lyon, 16–18 May 2018
Auditorium*

ADMISSION OF A NEW PARTICIPATING STATE

The Islamic Republic of Iran

1. The Director has the honour to inform the Governing Council that the Government of the Islamic Republic of Iran has applied to be admitted as a Participating State in the International Agency for Research on Cancer. This application was communicated in a letter to the Director-General of the World Health Organization dated 4 May 2017 and received together with its annex on 13 September 2017 (Appendix 1). The Director-General transmitted this application to all Participating States by letter dated 27 September 2017 and informed them that it would be considered by the Governing Council in accordance with Rule 50 of the Rules of Procedure of the Governing Council.
2. The documents in relation to the application of the Government of the Islamic Republic of Iran were sent for review to the members of the Governing Council Subcommittee on the Admission of New Participating States, who will meet by teleconference on 12 April 2018, and report to the Sixtieth Session of the Governing Council.
3. A report of the Government of the Islamic Republic of Iran on cancer research in the Islamic Republic of Iran is also appended (Appendix 2).

Appendix 1

IN THE NAME OF GOD



ISLAMIC REPUBLIC OF IRAN
MINISTRY OF HEALTH AND MEDICAL EDUCATION
OFFICE OF THE MINISTER

Dr Margaret Chan
Director General
World Health Organization
Avenue Appia 20, CH-1211 Geneva 27

Re: The Islamic Republic of Iran's Application for Admission as a Participating State
in the International Agency for Research on Cancer of the World Health Organization

Date: 2017-May-04

Ref:

Dear Dr Chan,

The Ministry of Health & Medical Education of the Islamic republic of Iran proposes its formal request for admission as a Participating State in the International Agency for Research on Cancer (IARC), with immediate effect.

As per Articles III and XII of the Statute of IARC, we are sending you our application for admission to the Agency, including a brief description of the cancer research and control activities in the framework of our National Plan on Control and Prevention of NCDs, and we would be grateful if these documents could be forwarded to the IARC Governing Council before its next session, to be held in Lyon on 18 and 19 May 2017.

The Ministry of Health and Medical Education of the Islamic Republic of Iran, hereby undertakes to observe and apply the provisions established in the IARC Statute, Rules and Regulations, including assuming the financial commitment associated with being a Participating State of the Agency, as assessed by its Governing Council. Upon Iran's admission as a Participating State in the IARC, we look forward to contributing effectively to the scientific and technical work of the Agency based on our understanding that Iran would have full voting rights as from the first year of its participation.

I would like to reemphasize that Iran is making this application to collaborate with the IARC through this membership mainly to address the national public health problems

and improve the health of Iranian people, in addition to participation in the IARC's global agenda on cancer research epidemiology, causes of cancer and prevention to fight against cancer. We are also seeking IARC's specific collaboration on below areas as a matter of priority:

- 1- To improve cancer registry in Iran and provide specific technical and scientific support to evaluate Iran's cancer registry program based on best available global evidence;
- 2- To provide specific advice regarding the etiology and risks of cancer, i.e. dietary factors, increasing use of fertilizers and pesticides as well as carcinogenicity of satellite jamming which is used against satellite waves;
- 3- To provide evidence-based advice and evaluate the current early detection programs for colorectal, cervix and breast cancers in Iran's public health system and ensure that the program works appropriately.

Any further clarifications on this matter should be addressed to the International Affairs Department at the Ministry of Health & Medical Education (12th Floor, Building C, Ivanak Street, Shahrak Ghods, Tehran, I.R. Iran). I would like to advise you that a copy of this letter has been also sent to Dr Christopher P. Wild, esteemed Director of the IARC.

Please, Madam, accept the assurance of my highest consideration.

Yours sincerely ,



Dr. S. Hassan Hashemi, MD
Minister

Enclosure: Summary of cancer research and control activities in the Islamic Republic of Iran

cc: Dr C.P. Wild, Director, IARC

Appendix 2

Application of I.R Iran to be admitted as a Participating State of the IARC

National Cancer Control Program

Cancer is the second leading cause of mortality in Iran. According to Globocan 2012, approximately 85,000 new cases and 53,000 deaths due to cancers occur annually in Iran [1]. The age-standardized incidence rate (ASR) of different types of cancer (excluding non-melanoma skin cancer) was 134.7/100,000 in males and 120.1/100,000 in females (Table 1). The National Cancer Control Program (NCCP) aims to decrease the number of cancer deaths by planning effective preventive interventions, early detection, effective treatments, and palliative care programs. The Cancer office in the Ministry of Health and Medical Education (MOHME) developed the first draft of the NCCP in 2007. However, the program did not incorporate a detailed action plan. In 2010, international delegates from WHO (including IARC) and the International Atomic Energy Agency paid a visit to Iran based on PACT¹ program and evaluated the cancer control situation in Iran. The mission led to clear recommendations for improvement of different aspects of the NCCP in 2012 [2]. Eventually, the MOHME came to endorse the recommendations and established the national cancer control committee to promote cancer control activities in Iran in 2014. Six working groups were established and worked under the governance of the national cancer control committee.

The NCCP outlined specific measures to be implemented in 5 years in the five priority areas including Prevention, Early detection, Treatment, Palliative care, Cancer Registry, and Research. In each area we defined strategic issues and the strategies, activities, and monitoring indicators were defined to respond these strategic issues.

The NCC collaboration with the national committee for noncommunicable diseases (NCD). In fact, the NCCP served as one of the subcommittees of

¹The Program of Action for Cancer Therapy

the NCD committee. In most areas, in particular the primary prevention, the strategies and action plan were in line with the national NCD program. However, some specific issues were added to the NCCP including surveillance of HPV infection, and occupational exposures. The NCCP is still a draft and the discussions in the committee are ongoing. We hope that the NCCP will be finalized and approved in 2017.

Summary of the NCCP strategies include:

Primary Prevention

- Enhance tobacco control measures and reduce prevalence of tobacco use including cigarettes and water pipe.
- Increase physical activity and decrease prevalence of obesity
- Increase awareness of general population about cancer risk factors and symptoms
- Implement surveillance of occupational exposure to work place carcinogens

Early Detection

- Perform demonstration projects and evaluate feasibility and cost-effectiveness of screening for three cancers including cervical cancer (HPV testing), colorectal cancer (FIT test), and breast cancer (physical exam and mammography). (Note: recently MOHME launched some projects to evaluate feasibility, effectiveness, and cost-effectiveness of screening programs for colorectal, breast, and cervical cancers in Iran. These projects were part of a NCD program called IRAPEN. Results from these projects will provide evidence for the extension of screening program in other regions).
- Enhance early diagnosis through awareness and public education and improving the infrastructure in the health care facilities and enhance capacities of the health professional to evaluate high risk individuals.

Diagnostic and Treatment

- Increase access to radiotherapy services throughout the country
- Increase access to chemotherapy drugs

- Increase the number of clinics and hospitals with the capacity to provide basic level of cancer care, particularly in the remote areas
- Establish electronic medical records and hospital based registries to monitor the quality of care
- Train a sufficient number of cancer specialists including onco-surgeons, medical oncologists, and radiotherapy oncologist to provide high standard care in all provinces

Palliative Care

- To establish palliative care departments in the major cancer hospitals and create a national palliative care network
- To Increase access of patients to the opioid drugs
- Implement home care service to deliver palliative care to the cancer patients
- Increase the number of palliative care specialists

Cancer Registration

- To improve IT infrastructure in the pathology departments to standardize the pathology reports
- Establish regional cancer registries in the provinces
- Provide technical and managerial training to cancer registry staff at different levels
- Increase national and international collaboration for cancer registration

Research

- Verify national priorities for cancer research
- Improve infrastructure and resources for cancer research
- Improve human resource capacity for cancer research
- Enhance national and international collaboration

Cancer Research Community

Faculty members and students of more than 50 medical universities conduct research in different biomedical fields including cancer. Academic research covers different areas including public health, basic and clinical research. In addition, several research centers have been established in the medical universities and hospitals to perform cancer research in collaboration with the medical universities and hospitals. In addition the research centers that are dedicated to cancer, several research centers are partially involved in the cancer research center.

The National Cancer Research Network of I.R. Iran (CRNIR) consists of more than 40 Iranian cancers research centers, research groups in the medical universities, and scientific associations. CRNIR has been established in 2003 by the Ministry of Health and Medical Education to promote cancer research through collaborative projects and networking and to apply scientific evidence to strengthen the national cancer control program in Iran. Secretariat of the CRNIR has been located in the cancer institute of Iran. CRNIR research focuses on the characteristics of patients, clinicians, communities, and health systems that lead to the best possible outcomes in cancer prevention and care. The funding source of CRNIR is the deputy of research of the Ministry of Health and Medical Education. However, CRNIR can raise research funding from other resources, including nongovernmental organizations and private sectors. Specifically the mission of the CRNIR includes:

- To provide scientific evidence for planning and monitoring of the national cancer control program, including studies of prevention, early detection, treatment, survivorship, surveillance, and end-of-life care.
- To determine and disseminate national cancer research priorities
- To promote cancer registration and make good use of standardized approaches for data collection, data management and analysis across health systems.
- To enhance national and international research collaboration and conduct large, multi-center, multidisciplinary research.

- To mobilize resources and raise funding for cancer research
- To enhance research skills through national and international scientific events including workshops, seminars, congress, etc.

Description of the funding of cancer research projects

- 1- Medical Universities
 - 50 Medical Universities and their schools support cancer research center through thesis and small academic projects
- 2- Research Centers (3,000,000 USD annually). Most research centers are supported by the medical universities. A few centers receive direct support from the government including
 - Digestive Disease Research Institute
 - Hematology Oncology Research Institute
 - Cancer Research Center, Cancer Institute of Iran
 - Cancer Research Center, ShahidBeheshti University of Medical Sciences
- 3- National Institute of Medical Research Development (NIMAD)
 - Cancer Research Council and NCD research council deal with cancer research projects
 - Annually allocate about 1,000,000 USD per year for cancer research
- 4- Deputy of Research Ministry of Health and Medical Education
 - The deputy of research supports priority areas for cancer research projects including
 - Cancer Registration: 200,000 USD/year
 - Up to 1,000,000 USD to support cancer research infrastructure and projects

Evidence of current scientific and technical collaboration with IARC

Background

Collaborations between Iranian and IARC scientists date back to 1968 with the establishment of the 'Caspian Cancer Registry', a population-based cancer registry covering the Caspian Sea littoral area, coordinated by Tehran University. Among other findings, this initiative confirmed the exceptionally high incidence rates of oesophageal squamous cell carcinoma in north-eastern Iran, which led to the conduct in the 1970s of several joint epidemiologic studies on risk factors of oesophageal cancer in the region.

In 2002 a new large-scale prospective cohort study was initiated in north-eastern Iran to investigate the causes of oesophageal cancer in the region, in collaboration between scientists at Tehran University of Medical Sciences (TUMS) and the Environmental Epidemiology Group at IARC. The Golestan Cohort Study was launched in January 2004 after completion of a pilot study in 2003. During a four-year period, the study successfully recruited 50,045 individuals, collecting data on nutritional and lifestyle factors together with biological samples stored at IARC and TUMS. Follow-up is based on active annual telephone surveys and a local population-based cancer registry, and so far only 1% of the participants have been lost to follow-up.

The Golestan Cohort Study has been extraordinarily successful, becoming an important resource for investigating the causes of a range of chronic diseases beyond the original objective of investigating the causes of oesophageal cancer, producing numerous publications in international scientific journals and helping to develop a new generation of Iranian epidemiologists. The cohort is one of the few available of this scale which is not located in a high income country.

Current collaborations

Cancer registration

Establishment of Population Based Cancer Registry is important basis for the improvement of cancer research in Iran. In 1994, Iranian parliament enacted a law about cancer registry program, by which cancer incidences is mandatory to be reported for all clinical facilities throughout the country. In 1996, the Ministry of health and medical education launched a program to start pathology based cancer registry in Iran. Since then several attempts were made to optimize this pathology based cancer registry and to provide accurate estimate about cancer incidence in the country. Golestan province which is located in the northeastern of Iran started a PBCR since 2007. Golestan PBCR successfully managed to conduct a high-quality program and met the quality indicators proposed by the International Agency of Research on Cancer (IARC). The reports from Golestan PBCR has been accepted for publication in volumes X, and XII of Cancer in Five Continents (CI5, 2013, 2017)

The Cancer Research Center, Cancer Institute of Iran (CRC) and the IARC Cancer Surveillance Section have an established collaboration on improving the quality and coverage of cancer registration and developing joint research projects on descriptive epidemiology of cancer to support the development and implementation of cancer control activities. The two organizations signed a Memorandum of Agreement in July 2015 in order to support and expand these joint activities in Iran and in neighboring countries, in the context of the IARC-coordinated Global Initiative for Cancer Registry Development (GICR). This collaboration has led to establishment of several PBCR in different regions of Iran. The progress of this new initiative is promising and will lead to several standard reports on cancer incidence and mortality rates from different regions of Iran.

The Golestan Cohort Study

The Digestive Disease Research Institute (DDRI) and the IARC Genetic Epidemiology Group initiated this year the study of risk factors of oesophageal cancers in the Golestan Cohort: about 300 squamous cell oesophageal cancer cases have been identified to date (220 of these with a confirmed diagnosis) out of the total 50,000 individuals. This study, funded by a research grant awarded by the World Cancer Research Fund, aims to investigate the independent and combined roles of the main suspected risk factors for oesophageal cancer in north-eastern Iran, specifically unhealthy diet, opium use and drinking very hot tea. A fellow from DDRI will come to IARC in June to undertake this analysis.

Other related projects are nested within this long-standing collaboration between these two groups, including:

The Mutograph project is new a large international collaboration funded by Cancer Research UK involving over 20 centres from 5 continents. The aim is to sequence the genomes of 5,000 pancreatic, kidney, oesophageal and bowel cancer patients and compare the mutational signatures present in cancer and normal cells to identify unknown cancer-causing factors and reveal how they lead to cancer. The planned contribution of Iran to the Mutograph project is substantial (at least 10% of the expected 5000 cases) including about 300 oesophageal squamous cell carcinoma cases from high, medium and low risk regions, as well as 200 oesophageal adenocarcinoma cases and 100 colorectal and 100 pancreas cancer cases. It is likely that a postdoctoral fellow from Iran will come to IARC to work on this project.

An analysis is planned of circulating tumour DNA (ctDNA) in oesophageal squamous cell carcinoma cases in the Golestan Cohort. The study will characterize the somatic genotypes of oesophageal tumours by whole exome sequencing of tumour biopsies, and determine by targeted sequencing of plasma DNA if these somatic mutations are also detectable in plasma, with the aim of identifying potential biomarkers for early detection, to improve treatment and increase survival rates of this highly lethal cancer.

ENIGMA Iran

The DDRI and the IARC Prevention and Implementation Group are jointly conducting the Iran component of the Epidemiological iNvestigation of Gastric MAalignancy study (ENIGMA). The ENIGMA study consists of a series of international prevalence surveys of *Helicobacter pylori* infection (ENIGMA I) and of gastric histological changes (ENIGMA II) in high and low gastric cancer risk areas, with the aim of investigating the worldwide epidemiology of *H. pylori* infection and its relation to gastric cancer. In Iran the study will be conducted in Shiraz and in Ardabil (regions with low and high gastric cancer rates, respectively) and Collaborative Research Agreements have been signed with local Universities and with the DDRI.

Colorectal cancer screening study

The DDRI conducted a pilot study on the feasibility of using a facial immunochemical test (FIT) for colorectal cancer screening in Iran (1044 individuals aged 45-75). The IARC Screening Group participated in the analysis and interpretation of the results of the study, and on the role of 'health navigators' to increase screening participation and awareness on colorectal cancer among the population in rural and urban areas. The resulting paper is submitted for publication. A further analysis is planned on the validation of the FIT test.