



Opportunities for Iranian Medical Institutions to benefit from Horizon 2020

Mohsen Asadi-Lari, Acting Minister for
International Affairs

Professor of Epidemiology

Ministry of Health and Medical
Education

Horizon 2020

- Horizon 2020 is the financial instrument implementing the [Innovation Union](#), a [Europe 2020](#) flagship initiative aimed at securing Europe's global competitiveness.
- Political support by Europe's leaders and the Members of the European Parliament to drive economic growth and create jobs; for smart, sustainable and inclusive growth and jobs.
- Coupling “research” and “innovation”, to achieve world-class science
- Horizon 2020 is open to everyone,
- Simple structure that reduces red tape and time. This approach ensures new projects get off the ground quickly for faster results.
- To develop the [European Research Area](#).

Structure

- The Horizon 2020 programme consists of three core themes or 'pillars':
 - Excellent science
 - Industrial leadership
 - Societal challenges

Societal Challenges

- Health, demographic change and wellbeing;
- Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the Bioeconomy;
- Secure, clean and efficient energy;
- Smart, green and integrated transport;
- Climate action, environment, resource efficiency and raw materials;
- Europe in a changing world - inclusive, innovative and reflective societies;
- Secure societies - protecting freedom and security of Europe and its citizens

Strategic Priorities in Tackling Societal Challenges (Health)

Six strategic priorities to respond societal challenges over the course of Horizon 2020:

1. Understanding health, Wellbeing and Disease
2. Preventing Disease
3. Treating and Managing Disease
4. Active ageing and self-management of health
5. Methods and Data
6. Health Care Provision and Integrated Care

R&I: sustainability of healthcare systems

I. Personalising Health and Care

- Research & Innovation supported by this call aims to:
 - **improve** our understanding of the causes and mechanisms underlying health, healthy ageing and disease;
 - **improve** our ability to monitor health and to prevent, detect, treat and manage disease;
 - **support** older persons to remain active and healthy;
 - **test** and demonstrate new models and tools for health and care delivery.

R&I: cont'd

II. Coordination activities

- R&I in areas including neuroscience, cancer, systems medicine.
- Contributes to European and international initiatives such as the:
 - [European Innovation Partnership on Active and Healthy Ageing](#),
 - [Global Alliance for Chronic Diseases](#),
 - [JPI More Years, Better Lives: \(http://www.jp-demographic.eu\)](http://www.jp-demographic.eu)
 - [JPI on Neurodegenerative Diseases Research](#) (JPND: the largest global research initiative to tackle neurodegenerative diseases)
 - JPI AMR: shared vision on Antimicrobial Resistance translated into new prevention and intervention strategies that improve public health (<https://www.jpiamr.eu>)
 - JPI on Healthy Diet for a Healthy Life: impact of diet and lifestyles on health

NCP Health

- National Contact Points (NCPs) for the Health, Demographic Change and Wellbeing Societal Challenge (SC1)

Health NCP Net 2.0 (HNN 2.0)

- Health NCP Net 2.0 (HNN 2.0) aims at aligning and enhancing the services that NCPs provide to applicants of European funding for Health research across Europe and worldwide.
- HNN 2.0 will run for four years (Dec. 2014 – Nov. 2018). The consortium is built of 13 NCP institutions that are beneficiaries to the European Commission, under the coordination of Instituto de Salud Carlos III (ISCIII, Spain).

Project Partners (consortium)

- Instituto de Salud Carlos III (ISCIII)
- Oesterreichische Forschungsförderungsgesellschaft mbH (FFG): The **Austrian Research Promotion Agency (FFG)** is the national funding agency for industrial research and development in Austria.
- Brussels Enterprise Agency (BEA)
- Agency for Mobility and EU Programmes (AMEUP)
- Institut National de la Santé et de la Recherche Médicale (INSERM)
- Deutsches Zentrum für Luft- und Raumfahrt (DLR) National Documentation Centre EKT/NHRF (EKT/NHRF)
- Agenzia per la Promozione della Ricerca Europea (APRE)
- Instytut Podstawowych Problemów Techniki Polskiej Akademii Nauk (IPPT PAN)
- Fundação para a Ciência e Tecnologia (FCT)
- Euresearch
- Innovate UK

Roles of NCPs

Health NCPs nominated by their governments with the mandate to:

- Spread awareness,
- Provide specialist advice and on-the ground guidance on Health research funding opportunities within Horizon 2020,
- Ensuring that the programme is readily accessible to all potential applicants,
- Encourage anyone interested in applying for European funding in health research to identify the right call, guide and support through the different stages of an application.

<http://www.healthncp.net>

Upcoming Events in July, 2018

- 02 July, 2018: [European Union Falls Festival 2018 \(Manchester, UK\)](#)
- 06 July, 2018: [Meet & Exchange workshop on Pre-Commercial Procurement \(PCP\) and Public Procurement of Innovative solutions \(PPI\) \(Brussels, BE\)](#)
- 09 July, 2018: [Euroscience Open Forum 2018 \(Toulouse, FR\)](#)
- 16 July, 2018: [Preventive Medicine & Public Health Conference \(London, UK\)](#)
- 22 July, 2018: [12th Stop Cervical, Breast & Prostate Cancers in Africa Conference \(Maseru, LS\)](#)

Open Calls

- Innovative Medicines Initiatives: IMI2
(14/6/2018)
- Collaborative health innovation solutions generated by Aerospace and Energy SMEs together with Health-related SMEs: (16/5/2018)
- Digital transformation in Health and Care: (24/4/2018)
- Trusted digital solutions and Cybersecurity in Health and Care: (24/4/2018)

Horizon 2020 Work Programme 2018-2020

8. Health, demographic change and wellbeing

Call - Better Health and care, economic growth and sustainable health systems

H2020-SC1-BHC-2018-2020

1. Personalised medicine
2. Innovative health and care industry
3. Infectious diseases and improving global health
4. Innovative health and care systems -
Integration of care
5. Decoding the role of the environment, including climate change, for health and wellbeing

Joint EU-Iran Workshop: July 2017



- A two-day workshop: 21 reps from EU Countries and 11 officials from EU
- To present the European Union's (EU) grants such as Erasmus+ and Horizon 2020
- Specific session for MOHME
- Several reps from Medical Universities
- Overview, proposal writing, potential areas for joint research

Second EU-Iran Meeting: Nov 2017



- The Seminar allowed the participants to find their research partners from the EU
 - How to participate in the Horizon 2020 program
 - Funding opportunities for researchers from Iran
 - New Horizon 2020 Work Program 2018-20 focusing on Iran
 - Proposal preparation and submission
 - Budgeting and contract preparation
- Necessary coordination was made by IRD and NIMAD to make Interested researchers and directors of Medical Universities to participate

The projects of Iranian Institutions with European Union

**Endocrinology and
Metabolism Research
Institute, Tehran University
of Medical Sciences**



Point of Care in-office device for identifying individuals at high risk of Osteoporosis and osteoporotic fracture



NMBP: Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing

Project Idea

- Osteoporosis: a consequence of the ageing of the society as a “silent killer” disease
- Usually osteoporosis manifests through fracture of the osteoporotic bone in the affected individual.
- Until now little or no measures for prevention or early detection of this disease are taken, because no simple, yet sufficiently precise or sensitive tools for early detection are available.
- The overall objective of the currently proposed PoCOsteo project therefore is the development, clinical validation and preparation for commercialisation of a **Point-of-Care tool for osteoporosis** prevention, detection and treatment.

What is PoCOsteo?

- PoCOsteo is a brand new, **high precision device** for identifying individuals at risk of Osteoporosis;
- The device will employ the very latest technologies and techniques in **genomics and microfluidics** to provide a simple to operate point-of-care tool;
- The device can be used **anywhere**;
- PoCOsteo will drastically **reduce the cost of testing**, as well as the pain and discomfort currently suffered by patients;

PoCOsteo Partners

- University of Ghent (Belgium)
- University Rovira I Virgili (Spain)
- Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.(Germany)
- MicroLIQUID (Spain)
- Labman Automation Ltd (UK)
- Medical University of Graz (Austria)
- **Endocrinology and Metabolism Research Institute (Iran)**
- Fundico bvba (Belgium)

Work Packages and Deliverables

- Work Package 1: Requirements and specifications
- Work Package 2: Proteomic compartment development
- Work Package 3: Genomic compartment development
- Work Package 4: Microfluidic manifold development
- Work Package 5: Integration
- **Work Package 6: Clinical Validation (to be delivered by EMRI)**
- Work Package 7: Industrialization
- Work Package 8: Dissemination and Exploitation
- Work Package 9: Management and coordination

Each of these 9 Work Packages is further subdivided in a number of task.

Work Package 6: Clinical Validation

Task 1. Develop a mathematical model based on existing cohort data (EMRI with inputs of MU Graz)

Task 2. Perform a clinical trial to validate the final PoC device (Bushehr Elderly Health Cohort)



Coordinator of PoCOsteo Project
visits EMRI Bio-bank Facilities



PoCOsteo investigator wins TUMS Avicenna Research
Festival Award

Expectations/ The Way Forward

- Find your **allies** in the national R&I eco-system (Rectors Conference, regional associations etc.)
- Team-up with national **multipliers** to promote Support to Widening Participation measures (SEWP): **joint events** and campaigns
- Address multipliers to **raise awareness** of the alien programme part
- Get involved in the **policy debate** in your instituteto know *what's going on (national positions, programmes, trends...)*
- In your **organisation**, link-up functions for policy counselling on synergies (if existing)

COMMUNICATE! LISTEN! SHARE!

Expectations/ The Way Forward

- Networking:
 - 700 research centres (Med related),
 - 19K Faculties
 - 66 Medical Universities
 - 250K students
 - 96% of total medicines produced locally, 107 pharma co
- Potential areas of research, talented researchers
- Vast opportunities re bilateral ties: EU Commissions (Health, Agriculture, Innovation), Belgium (Flanders), Austria, France, Italy, Germany, Hungary, etc
- Recognising potential EU partners
- Correct applications
- Keep Going!

