

The European network staff eXchange for integrAting precision health in the health Care sysTems (ExACT): a Marie Curie Research and Innovation Staff Exchange (RISE) project

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The “European network staff eXchange for integrAting precision health in the health Care sysTems” consortium (ExACT), funded by the Marie Curie Research and Innovation Staff Exchange (RISE) 2017 - Horizon 2020, is aimed at building a community of academic and non-academic institutions that generates high quality, multidisciplinary collaboration by exchanging knowledge in research and training activities on precision health. Biomedical and digital science and technologies have a great potential to improve healthcare and underpin more efficient and sustainable health systems. An EU roadmap has been recently designed around the topic of personalized and precision medicine [1]. We are rapidly moving, however, into a new era where the vision would be to go beyond these definitions and that will be increasingly focused on preventing disease before the onset. Precision health includes precision medicine but broadly expands its focus. Precision health aims to prevent and predict illness, maintaining health and quality of life for as long as possible, by drawing on the new technological and data science tools to translate volumes of research and clinical data into information that citizens, patients and doctors can use.

Technological advances, however, jointly with the

current demographic trends and the expectation of citizens, have the potential to broaden the gap between available resources and the healthcare requirements. For this reason, sustainable healthcare needs a shift from treatment of established disease to disease prevention and early diagnosis; this relies on the need to engage citizens to take greater responsibility for their health in order to enable a more participatory healthcare model [2]. Furthermore, to keep healthcare sustainable, four elements appear to be a consistent feature of all the reports that address these issues: placing the individual citizen at the center of health systems; increasing the emphasis on prevention; radical reorganization of services with integrated healthcare (hospital and community care work together); and systematic evaluation of the new and existing technologies using Health Technology Assessment (HTA) and Health Outcomes Research approaches to invest or procure based on real value [3].

By building up on the experience and achievements of the former Personalized Prevention of Chronic Diseases (PRECeDI) project, the ExACT consortium will provide a cohesive framework for training staff by sharing knowledge, creating synergies and expertise and encouraging an exchange of best practice among top-level institutions [4].

The ExACT consortium consists of members from 7 European countries, 1 Associated Country (Switzerland) and 2 Third Countries. The beneficiaries are 15, and 2 are the partner organisations; 10 are academic institutions and 7 non-academic, and include: the Università del Sacro Cuore, Rome, Italy; Deutsches Krebsforschungszentrum Heidelberg, Heidelberg, Germany; Erasmus Universitair Medisch Centrum, Rotterdam, The Netherlands; European Alliance for Personalised Medicine ASBL, Brussels, Belgium; Foundation for Genomics & Population Health, Cambridge, UK; Katholieke Universiteit Leuven, Leuven, Belgium; Stichting VU medisch centrum, Amsterdam, The Netherlands; Università degli Studi di Roma La Sapienza, Rome, Italy; Ethniko kai Kapodistriako Panepistimio Athinon, Athens, Greece; Ministero della Salute, Rome, Italy; European Public Health Association, Utrecht, The Netherlands; Oxford Centre for Triple Value Healthcare Ltd, Oxford, UK; Innovation Sprint Sprl, Brussels, Belgium; IBM Research GmbH, Zurich, Switzerland; and the Departamento de Salud Gobierno Vasco, Spain. The 2 partners are represented by the Stanford University, California, USA and the Council of Canadian Academies, Ottawa, Ontario, Canada.

The whole project will last 4 years (from March 2019, to February 2023) during which around 74 staff, including early-stage and experienced researchers, will be seconded. The joint research and innovation activities that the partner will address, crosses five domains of precision health: 1. Integration of Big Data and digital solutions into the health care systems; 2. Designing and promoting innovative citizen engagement models; 3. Education of healthcare professionals and leadership; 4. HTA and Health Outcomes Research in precision health; 5. Ethical-legal, social, organizational and policy issues encompassing precision health.

In each host institution, secondees will be supported by a research team expert on precision health and they will take part in their research activities. Researchers will be provided with a training course, at the beginning of the project, that consists of intensive training sessions with comprehensive and detailed overview of the research and training activities, allowing a smooth and fast induction period in the hosting organisation, and providing the staff

member a clear overview of the context of the hosting organisation. During the project workshops and seminars will be organised. The former will provide an occasion for each seconded to discuss the work carried out during secondment, new skills/competences and knowledge acquired, results achieved, its strengths and weaknesses; the latter will be open to external participants and stakeholders active in the field of precision health who might give a further boost to the project. Secondees will also share the results of their research and their experience with members of their home organisation.

At the end of such continuous knowledge transfer activity, the researchers will be fully equipped to work in precision health-related research fields, policy and practice areas, as they acquired the knowledge, skills and attitudes to interact and to cope with the genuine work environment of precision medicine in health care. Through the theoretical and empirical findings of different and joint research tasks, the project will largely impact on the staff work lives.

By sharing knowledge, building synergies and expertise and encouraging an exchange of best practice among top-level institutions, we aim to give impetus to the translational effort necessary to implement precision health into the EU health care systems.

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