As the number of genetic tests grows every year, health care systems worldwide face a twofold challenge: (a) to develop an evidence-based evaluation process for genetic tests or other applications of genomic knowledge in transition from research into practice; and (b) to develop capacity building that enables health care systems to make effective use of genetic/genomic applications with proven clinical utility. CAPABILITY is a project developed by the European Network of Excellence: Genetic Testing in Europe - Network in order to test development, harmonization, validation and standardization of genetic services. CAPABILITY partners include leading experts from emerging economies: Argentina, Egypt and South Africa. CAPABILITY’s overall objectives are to contribute to the efforts to establish and sustain a worldwide harmonisation process for quality standards for the integration of genetic test/genomic knowledge applications into practice and prevention. The Egyptian participant has authored a paper entitled “Genetic Services in Egypt - Current Situation and Needs Assessment,” available electronically on the project’s website.

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www.capabilitynet.eu
Cystic echinococcosis (CE) is a chronic zoonotic disease that results from human infection with the larval stage of the dog tapeworm, Echinococcus granulosus. The disease is highly endemic in most of the countries of the Mediterranean basin, including EU countries, North Africa and the Middle East. The Egyptian partner was the leader of the work package on the standardization of diagnostic techniques of CE. Standardization is necessary in order to improve performance within individual clinical settings and comparability between centres on a regional level. Participating researchers used serology and ultrasound to diagnose CE and followed patients with CE after treatment. The data collected from medical institutions was assessed with respect to comparability and performance. In order to exchange knowledge between project members on clinical and veterinary experiences, several meetings and workshops were successfully held in Rabat, Morocco (July 2004), Irbid, Jordan (March 2005), Cairo, Egypt (March 2006) and Lisboa, Portugal (July 2007).
The objective of this project is to reinforce the network of National Contact Points (NCPs) for the health related research areas and the Health theme under FP7 by promoting trans-national cooperation and identifying the weaknesses of the network. The action focuses and sharing good practices by benchmarking, training, networking and brokerage events. A set of execution, result and impact indicators will measure the progress and efficacy of these mechanisms. The network is open to the participation of NCPs from International Cooperation Partner Countries (ICPC). Special attention will be given to helping less experienced NCPs rapidly acquire the knowledge accumulated in other countries. The Egyptian participant leads the task of cooperation with ICPC partner countries and capacity building, as well as extending the use of common methodology to ICPC.

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• Centro para el Desarrollo Tecnologico Industrial (Spain)
• Agenzia per la Promozione della Ricerca Europea (Italy)

www.healthncpnet.eu
The main aim of the HEPACIVAC project is the standardization of the parameters to conduct comparable pre-clinical studies and clinical trials for preventative and therapeutic vaccines to HCV. For this purpose, two vaccine companies in Europe, OKAIROS in collaboration with CEINGE, have developed a gene based HCV vaccine candidate that encodes for the HCV non-structural region and utilizes adenoviral vectors for delivery. This vaccine elicits potent T cell (leukocyte) responses and works by lowering viral replication, thus preventing chronic hepatitis. A second vaccine candidate is based on the capacity of the HCV envelope glycoproteins to elicit neutralizing antibodies. The choice of Egypt as a partner in the HEPACIVAC project is mainly due to the fact that Egypt has the highest prevalence of HCV infection in the world, with 15% of the population is infected. One of roles of the Egyptian partner is to conduct epidemiological studies about the possibility of having health care workers as volunteers for the study of the new vaccines.

www.altaweb.eu/hepacivac
The aim of ITHANET is to strengthen the Euro-Mediterranean research community on thalassaemia and related haemoglobinopathies, and to enhance its scientific potential using the infrastructures and tools of European research networks (GEANT, Grids). With the goal to coordinate existing research activities and be a base for future collaborative projects, ITHANET introduced a common approach to the resources of information and communication technologies. The Egyptian participant’s activities included preparing reports on thalassaemia in Egypt, publishing research on new drugs for thalassaemia on the website, participating in the European Genetic Foundation courses and disseminating the knowledge on thalassaemia prevention and management in the region.

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- Universita ta Malta (Malta)
- Oxford Radcliffe Hospitals NHS Trust (United Kingdom)
- Fondazione Europea per la Genetica (Italy)
- Thalassaemia International Federation (Cyprus)
- Cesnet, Zajmove Sdruzeni Pravnickych Osob (Czech Republic)
The primary objective of the MedGeNet project was to expand the human expertise in clinical and cancer genetics in Mediterranean Partner Countries through the transfer of knowledge and technology between the two rims of the Mediterranean, which share common genetic diseases. The project focused on three main areas: 1) medical diagnosis and integrated medical management, 2) Information and Communication Technology and 3) education for health professionals and the general public. The two Egyptian partners submitted reports on genetic diseases, more specifically thalassaemia, in order to build a regional database and tele-counselling services through a network of efficient genetic centers. One participant prepared and published two books (in Arabic and in English) on thalassaemia prevention and management for physicians and patients.
Biological materials like blood, tissues and organs, although might provide solutions for several medical problems, carry the risk of transmitting diseases via transfusion and transplantation. Thus, there is an urgent need to improve the technologies used for screening diseases such as HIV and Hepatitis C. Similarly, it is important to be able to test donor blood in a cheap and fast way, especially in countries where the rate of infected blood is high due to high prevalence of diseases. RASP aims to develop a fast, cheap and precise method with the potential to detect more than 100 blood antibodies simultaneously. The Egyptian partner is working on the design of the biological biosensor and is testing the new device for the efficacy of the detection method comparatively to the old. In order to do so, the partners are exploring a new type of Surface Plasmon resonance (SPR) transducing principle that would potentially increase the sensitivity of the method compared to other the state-of-the-art SPR systems.

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- University of Regensburg (Germany)
- University of Birmingham (United Kingdom)
- Budapest University of Technology and Economics (Hungary)

- FP6: POLICIES-2.2 Public health issues, including epidemiology contributing to disease prevention and responses to emerging rare and communicable diseases, allergies, procedures for secure blood and organ donations, non-animal test methods.
- Contract Type: Specific Targeted Research Project
- Start Date: January 2007
- Duration: 36 months
- EC contribution to the project: € 1.56 million

www.rapid-spr.com