INFRAVEC- Research capacity for the implementation of genetic control of mosquitoes
REFERENTE: prof. Bruno Arcà, Dip. Biologia Strutturale e Funzionale

Mosquitoes transmit a variety of infectious diseases that cause a tremendous burden to public health. Due to climate changes and to the increase in international trade and tourism the threats posed by mosquitoes are increasingly affecting large parts of Europe, causing understandable concerns among the populations of many Member States. Control methods, mainly based on insecticide usage, are struggling to cope with the challenges posed by the biology and ecology of mosquito vectors.

INFRAVEC aims at bridging the gap between the recent advances in transgenic technology and its implementation as a novel powerful approach for vector control. To this aim, a large European Infrastructure will be established, in which the coordination of efforts, expertise and facilities provided by the individual research groups and institutions will bolster and considerably expand the overall research capabilities of the research community.

INFRAVEC will operate, through a number of Networking, Joint Research, Transnational and Service activities, towards the objective of considerably strengthening research capability in Europe by sharing knowledge, resources and technology. INFRAVEC will mainly focus on Anopheles gambiae, the major vector of malaria, and Aedes albopictus, a viral disease vector that is rapidly spreading through Europe.

Four Infrastructure facilities will be integrated in the project:
1) the Genetically Modified mosquito laboratory of Imperial College London;
2) the Mosquito Mass-rearing facility at the Centro Agricoltura ed Ambiente (with the support of the International Atomic Energy Agency);
3) the Bioinformatics facility at EMBLEBI, UK; and
4) the Mosquito Confined Release facility at ISRIM.

INFRAVEC will provide a formidable research capability to external users and facilitate the performance of five research projects aimed at utilizing basic knowledge of mosquito genetics and biology in an unprecedented effort to develop novel opportunities for mosquito control.

Coordinator
IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE (United Kingdom)
Other participants
UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II
FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS (Greece)
MINISTERE DE LA SANTE (Burkina Faso)
CENTRO AGRICOLTURA E AMBIENTE GIORGIO NICOLI SRL (Italy)
AGRICULTURAL UNIVERSITY OF ATHENS (Greece)
OXITEC LIMITED (United Kingdom)
ORGANISATION DE COORDINATION POUR LA LUTTE CONTRE LES ENDÉMIES EN AFRIQUE CENTRALE (Cameroon)
ISTITUTO SUPERIORE DI RICERCA E FORMAZIONE SUI MATERIALI SPECIALI PERTECNOLOGIE AVANZATE SCRL IN BREVE ISRIMS CONS A R L (Italy)
CENTRE NATIONAL DE RECHERCHE SCIENTIFIQUE ET TECHNOLOGIQUE*INSTITUT DE RECHERCHE EN SCIENCES DE LA SANTE (Burkina Faso)
STICHTING KATHOLIEKE UNIVERSITEIT (Netherlands)
EUROPEAN MOLECULAR BIOLOGY LABORATORY (Germany)

INSTITUTO DE HIGIENE E MEDICINA TROPICAL (Portugal)
INTERNATIONAL CENTRE OF INSECT PHYSIOLOGY AND ECOLOGY (Kenya)
UNIVERSITA DEGLI STUDI DI PAVIA (Italy)
INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT (France)
UNIVERSITA DEGLI STUDI DI CAMERINO (Italy)
UNIVERSITA DEGLI STUDI DI ROMA LA SAPIENZA (Italy)
UNIVERSITY OF GLASGOW (United Kingdom)
MED BIOTECH LABORATORIES (Uganda)
INSTITUT PASTEUR DE DAKAR (Senegal)
WAGENINGEN UNIVERSITEIT   (Netherlands)
INSTITUT PASTEUR (France)
UNIVERSITY OF KEELE (United Kingdom)
STOCKHOLMS UNIVERSITET (Sweden)
THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD (United Kingdom)
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS) (France)
UNIVERSITAETSKLINIKUM HEIDELBERG   (Germany)
ISTITUTO SUPERIORE DI SANITA (Italy)
UNIVERSITA DEGLI STUDI DI PERUGIA (Italy)
LIVERPOOL SCHOOL OF TROPICAL MEDICINE (United Kingdom)

Start date 01/09/2009
End date 31/08/2013
Duration 48 mesi
Project cost 11.17 million euro
Project Funding 8.5 million euro
Subprogramme Area Bottom-up approach: Integrating Activities in all scientific and technological fields
Contract type -