



2nd Scenario Building Workshop

EU-LAC collaboration on health research

Infection Working Group

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Introduction

The study group identified **five specific sub-areas** to be reviewed according to the policy oriented approach of the EU-LAC project.

Those sub-areas were as follows:

- 1. Public health and social care services research related to infectious diseases;
- 2. Early detection research including both screening and diagnosis;
- 3. New treatments and development of new therapeutic strategies;
- 4. Research in prevention of infectious diseases and promotion of well-being;
- 5. Underpinning research.

Sub-area 1: Public health and social care services research related to infectious diseases



- Fostering the development of EU-LAC international disease-specific networks and to implement pre-existent networks. Collaboration in the INFECT-ERA program;
- Harmonization and standardization of reference diagnosis procedures;
- Development of standard operational procedures for research;
- Scientific advice for members of networks;
- Training and continuing education;
- Advisory functions for public health institutions, social institutions, and media.

Sub-area 2: Early detection research including both screening and diagnosis



- Fostering the development of EU-LAC international disease-specific networks and to implement pre-existent networks;
- Design of multicentre studies to develop new screening and diagnosis techniques;
- Development of standard operational procedures and harmonization of techniques of diagnosis;
- Design of validation exercises to license techniques for clinical laboratories;
- Collaborative research in animal models to develop new early detection tools;
- Collaboration with companies interested in diagnosis of infectious diseases;
- Scientific advice, training and advisory functions.

Sub-area 3: New treatments and development of new therapeutic strategies



- Fostering the development of EU-LAC international disease-specific networks and to implement pre-existent networks. Collaboration in the Joint Programming AMR;
- Extensive seeking of natural compounds with antimicrobial activity;
- Development of standard operational procedures and harmonization of techniques of screening of new antimicrobial agents;
- Implementation in clinical laboratories of reliable methods *in vitro* to detect the resistance;
- Collaborative research in animal models to develop new therapeutic strategies;
- Collaboration with pharmaceutical companies;
- Scientific advice, training and advisory functions.

Sub-area 4: Research in prevention of infectious diseases and promotion of well-being



- Fostering the development of EU-LAC international disease-specific networks and to implement pre-existent networks;
- Design of multicentre studies to know microbial ecology and genetic population;
- Development of standard operational procedures and harmonization of techniques of research;
- Collaborative research in animal models of prevention of infection and alternative to animal models;
- Bioinformatics and data analysis techniques for prediction of mechanism of infection;
- Design an action plan to reinforcement of measures of biosafety and biosecurity in research and clinical laboratories;
- Collaboration with companies interested in new vaccines and new prevention technologies;
- Scientific advice, training and advisory functions.

Sub-area 5: Underpinning research



- Fostering the development of EU-LAC international disease-specific networks and to implement pre-existent networks;
- Design of multicentre studies to know host-microbe interactions and immune response;
- Development of good laboratory practices (GPL) procedures and harmonization of techniques of research including proficiency tests (EQA - External Quality Assurance) using specific panels;
- Collaborative research in animal models of host-microbe interactions and alternatives to animal models;
- Collaboration with companies interested in techniques related to personalized medicine;
- Scientific advice, training and advisory functions.

Scientific Discussion



- Scientific challenges of the scientific area;
- Regional relevance and Political willingness;
- Feasibility (Research performers, Capabilities, Technical and financial feasibility, Cultural and socio-economic issues, National restrictions);
- Added value, for example:
 - Study of regional variations like gene frequencies, socioeconomic variables, climate conditions, etc.;
 - The area is not covered by other funding schemes;
 - One region could benefit from extensive research experience in a specific area of the other region;
 - The area is not funded by other research programmes;
 - Increasing the transfer of scientific findings with the society and promotion of well-being.
- Expected impact.