

# **Ukraine -EU cooperation in health research: story of success**

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# **Participation in EU funded projects is important for the Ukrainian scientists to:**

- Discover new ideas and solutions
- Learn from the experiences of others
- Develop new contacts and networks
- Conquering new markets and establishing new business opportunities
- Inspiring international cooperation
- Possibility to pursue high-risk ideas
- “Supported by the EC” – advantage from promotional point of view
- Capacity building of the organization

# Legal basis of EU-Ukraine cooperation

- **S&T Cooperation agreement** between Ukraine and the EU was signed in 2003. This Agreement was renewed twice, in 2004 and 2011.  
The Agreement offers a framework for dialogue, through the establishment of the Joint EU-Ukraine S&T Cooperation Committee  
The first Joint Committee meeting took place in Brussels on 23 November 2011, and the second Joint Committee meeting was held on May 2013 in Kiev.
- Ukraine is one of the **International Cooperation Partner Countries** (in Eastern European and Central Asian region)
- Ukraine is covered by The **European Neighbourhood Policy (ENP)**

# **UKRAINE is ONE of the 11 EU KEY PARTNER COUNTRIES in HORIZON 2020**

The review of the bilateral cooperation in FP7 highlighted the fact Ukraine was to date :

- the 7<sup>th</sup> largest international EC partner in terms of number of participations in the program in the world, and
- the 2<sup>nd</sup> in Eastern Europe and Central Asia (EECA) region.

# Ukrainian participation in FP7 (2007-2013)

Ukraine in FP7 could be briefly described in the following figures:

- Ukrainian researchers participate in almost all Specific programs and thematic priorities
  - 876 Ukrainian legal entities applied for FP7 funding during 2007-2013
  - 270 participations in all FP7 Specific programs
  - Total EC contribution from FP7 Budget to the Ukrainian partners is € 27 millions
  - Success ratio for Ukrainian entities (19,8%) is close to average FP7 success ratio (20,7%)

# HEALTH

## in EU Framework Programs

- The overall objective of health research under FP is to improve the health of European citizens and boost the competitiveness of health-related industries and businesses, as well as address global health issues.
- The Health theme traditionally is a major theme of the FP Specific programs and EU has earmarked a largest budget for funding this first priority theme.

# FP5 - “Quality of life and management of living resources” (1998-2002)

2 projects with participation of Ukrainian entities

1. **INUENDO** - Biopersistent organochlorines in diet and human fertility. epidemiologic studies of time to pregnancy and semen quality in inuit and european populations. (2002-2005)
2. **ECS** - European collaborative study on pregnant HIV-infected women and their children (2000-2004)

# FP6 – “Life sciences, genomics and biotechnology for health” (2002-2006)

7 projects with Ukrainian participation

1. **EUROPEHIVRESISTANCE** - European Cohort coordinating network on HIV drug resistance (2006-2010)
2. **EUROPEAN LEUKEMIANET** - Strengthen and develop scientific and technological excellence in research and therapy of leukemia (CML, AML, ALL, CLL, MDS, CMPD) by integration of the leading national leukemia networks and their interdisciplinary partner groups in Europe (2004-2011)
3. **CASCADE** - Concerted action on seroconversion to AIDS and death in Europe (2006-2010)
4. **PENTA/ECS** - Paediatric European network treatment AIDS and European collaborative study on HIV-infected pregnant women and their children (2006-2010)
5. **ANTIMAL** - Development of New Drugs for the Treatment of Malaria (2005-2011)
6. **GEHA** - GENetics for Healthy Aging (2004-2010)
7. **IMPRESMAN-COEUR4LIFE** - Improving project & research management skills in third countries to stimulate their cooperation with Europe for life- sciences (2004-2006)



# FP7 - “HEALTH” (2007-2013)

8 projects with participation of Ukrainian entities

1. **THYMISTEM** - Development of Stem Cell Based Therapy for Thymic Regeneration (2013-2017)
2. **CHAARM** - Combined highly active anti-retroviral microbicides (2010-2014)
3. **EUROCOORD** - European Network of HIV/AIDS Cohort Studies to Coordinate at European and International Level Clinical Research on HIV/AIDS (2011-2015)
4. **PSYCHCNVS** - Copy number variations conferring risk of psychiatric disorders in children (2009-2012)
5. **EECALINK** - Promotion and facilitation of international cooperation with Eastern European and Central Asian countries (2009-2011)
6. **BESTAGEING** - Biomarker Research Alliance for Diagnosing Heart Disease in the Ageing European Population (2013-2017)
7. **HITT-2008** - Health in times of transition: Trends in population health and health policies in CIS countries (2009-2013)
8. **CHERISH** - Improving diagnoses of mental retardation in children in Central Eastern Europe and Central Asia through genetic characterisation and bioinformatics/-statistics (2009-2012)

# Participation of IMBG NASU in EU Framework Programs

- FP5 - [ECS](#) - European collaborative study on pregnant HIV-infected women and their children (2000-2004) – Subcontractor of Department of Obstetrics Gynecology, Odessa Regional Hospital, Odessa
- FP6 - [IMPRESMAN-COEUR4LIFE](#) - Improving project & research management skills in third countries to stimulate their cooperation with Europe for life- sciences (2004-2006) - Subcontractor to UKRAINIAN ASSOCIATION OF INTERNAL MEDICINE (Prof. VasyI NETIAYHENKO)
- FP7 - [CHERISH](#) - Improving diagnoses of mental retardation in children in Central Eastern Europe and Central Asia through genetic characterisation and bioinformatics/-statistics (2009-2012) – participant Prof.Liudmila Livshyts, IMBG NASU

# **FP7 International Research Staff Exchange Scheme (IRSES) projects in IMBG NASU**

## **Biosensors for medicine**

- Nanosensors based on nanomaterials (NANOBIOSENS)  
PIRSES-GA-2008 #230802 (2009 –2011)
- Integrated nanomaterials and nanodevices (NANODEV)  
PIRSES-GA-2012-318524 (2013 – 2015)
- Micro/nanosensors for early cancer warning system -  
diagnostic and prognostic information  
(SMARTCANCERSENS)  
PIRSES-GA-2012-318053 (2013 – 2016)

# FP7 ER-WIDE project COMBIOM (2011-2014)

## **STRENGTHENING COOPERATION IN MOLECULAR BIOMEDICINE between EU and UKRAINE COMBIOM #294932**

### PROJECT PARTNERS:

- 1 IMBG            Institute of Molecular Biology and Genetics  
Coordinator    of the National Academy of Sciences of Ukraine  
<http://www.imbg.org.ua/>
- 2 IGR            Gustave Roussy Institute of Oncology (France)  
<http://www.igr.fr/>
- 3 IIMCB          International Institute of Molecular and Cell Biology  
(Poland)  
<http://www.iimcb.gov.pl/>

# COMBIOM tasks

1. Twinning with the best European research centers in partner countries in view of
  - exchanging knowledge and good practices,
  - disseminating scientific information,
  - identifying partners and
  - setting up joint experiments
  - through short-term visits or exchange of staff, meetings, seminars, and similar activities;
2. Developing training modules to build competency and facilitate the participation of IMBG as one of the best Ukrainian research centre in FP7;
3. Developing the IMBG as a strategic Ukrainian research centre in order
  - to increase IMBG scope and visibility (regional coverage, activities),
  - to develop comparative advantage and
  - to improve IMBG competitiveness
  - by enhancing IMBG responses to the socio-economic needs of Ukraine and of the region.

N	Advisory Board Member	Affiliation	Country
1	Dr. Dubynskyi Yegor	Adviser to the Vice President of NAS of Ukraine	Ukraine
2	Prof. Favorova Olga	Russian State Medical University, Moscow	Russia
3	Prof. Gout Ivan	University College London	UK
4	Prof. Kryshtal Oleg	Bogomoletz Institute of Physiology of NASU, Kyiv	Ukraine
5	Prof. Kuznicki Jacek	International Institute of Molecular and Cell Biology, Warsaw	Poland
6	Prof. Maksymenko Vitaliy	National Technical University of Ukraine “KPI”, Kiev	Ukraine
7	Prof. Mirande Marc	Laboratory of structural enzymology and biochemistry, CNRS, Paris	France
8	Prof. Razin Sergey	Institute of Gene Biology, Russian Academy of Sciences, Moscow	Russia
9	Prof. Tararine Michel	Head of CNRS Office in Moscow	France
10	Prof. Vassetzky Yegor	Institut Gustave Roussy, Paris	France
11	Dr. Yaspo Marie -Laure	Max Planck Institute for Molecular Genetics, Berlin	Germany
12	Prof. Zylicz Alicja	International Institute of Molecular and Cell Biology, Warsaw	Poland

# Established scientific collaboration

- Task 1.1 Genes participating in the development of brain tumours and myeloproliferative diseases and their relation to signaling pathways.
- Task 1.2 A search for the transcription signature of FSHD myoblasts.
- Task 1.3 Methylation pattern of Facioscapulohumeral dystrophy.
- Task 1.4 Molecular basis of functional activities of intersectin family adaptors in physiological conditions and diseases.
- Task 1.5 Potential implication of leucyl-tRNA synthetase in tumorigenesis.
- Task 1.6 Identification of tumour-associated antigens for development of novel approaches for diagnostics and therapy of human malignancies.
- Task 1.7 Multimolecular translation elongation factor eEF1H in health and disease.
- Task 1.8. The development of pseudosubstrates for MGMT enzyme as possible drugs to improve chemotherapy efficacy.

# COMBIOM events

- **Initial Scientific Conference** (May 16-17, 2012 - 156 participants)  
a kick-off meeting of the partner's organizations, during which the key priorities, common points of interests in molecular biomedicine were elucidated, so as the obstacles for joint research perspectives should become visible, the rules behind this project were communicated and necessary structural units were established .
- Formation of **IMBG International Advisory Board**,  
the First Advisory Board Meeting (May, 2012)  
the Second Advisory Board Meeting (April 2013)
- **Round table** “The perspectives of the development of biomedicine in Ukraine. Discussion of possible Joint (Research and Innovation) Program of National Academy of Sciences of Ukraine and National Academy of Medical Science of Ukraine”.
- 4 Project Management Committee meetings in 2012-2013
- Final Scientific Conference is planned to be held in August 2014



# COMBIOM activities in 2012-2013 (I)

- Scientific trainings and exchanging knowledge in: **59** persons visited partners organizations in Poland and France (1-4 weeks visits)
- **2** management trainings for IMBG staff in Polish research organizations and University of Warsaw
- **2** trainings for young scientists on scientific communication and research integrity issues (**24** IMBG young researchers were involved)
- the Competition for the best scientific publication have been organized annually among IMBG researchers (**2** prizes) and young scientists (**6** prizes)
- English courses for IMBG researchers – improving language skills, Speaking Club, Scientific Journal Club in English for youth – about **50** people in IMBG are involved

# COMBIOM activities in 2012-2013 (II)

- **SWOT analysis** was performed in IMBG NASU in 2012-2013
- IMBG was considered as main leader and high top representative of the Ukrainian biomed research institutions
- Opportunities and Threats for the biomedical research in Ukraine were identified and were sent to Ukrainian authorities responsible for science and research development in Ukraine

**SWOT analysis was approved by IMBG International Advisory Board in April, 2013**

# COMBIOM activities in 2012-2013 (III)

- 23.09.2013 COMBIOM project initiated and conducted the Round Table “The perspectives of the development of biomedicine in Ukraine. Discussion of a possible **Joint (Research and Innovation) Program of National Academy of Sciences of Ukraine and National Academy of Medical Science of Ukraine**”.
- 45 participants of the Round table represented the fundamental, medical institutions, universities and clinics
- Fruitful discussion showed that there is strong potential of the institutions of NASU and NAMSU for developing joint research and implementation of the results into clinic. The program of cooperation between Ukrainian scientists and clinicians in the area of biotechnology and biomedicine makes the good perspective for the development of biomedicine in Ukraine.

# Strategy of biomed research in Ukraine

- Creation of the **Strategy of Biomed Research in Ukraine** as one of the main goals of COMBIOM
- Development and implementation of the State Biomed Program of National Academy of Sciences of Ukraine and National Academy of Medical Science of Ukraine
- Increasing of Ukrainian participation in Horizon 2020
- SWOT analysis and the tasks to overcome the Threats for biomed research in Ukraine
- **COMBIOM prolongation** is necessary for further strengthening collaboration on biomedicine between EU and Ukraine, implementation of the Strategy of Biomed Research which is absolutely necessary for the creation of **personalized medicine**.

# Detailed information please find here:

- IMBG NASU website

<http://www.imbg.org.ua/>

- COMBIOM website

<http://www.combiom-fp7.org/>

Petition of the Ukrainian scientists

[https://secure.avaaz.org/en/petition/World\\_Community\\_Help\\_in\\_stopping\\_the\\_aggression\\_of\\_the\\_Russian\\_Federation\\_against\\_Ukraine/](https://secure.avaaz.org/en/petition/World_Community_Help_in_stopping_the_aggression_of_the_Russian_Federation_against_Ukraine/)

***THANK YOU FOR YOUR  
ATTENTION!***

