



Opportunities in the Health theme of the EU's 7th Framework programme

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“Cooperation”: Collaborative research in FP7

Thematic Priorities

 1. Health	6.1
 2. Food, agriculture, fisheries and biotechnology	1.9
3. Information and communication technologies	9.1
4. Nanosciences, nanotechnologies, materials and new production technologies	3.5
5. Energy	2.3
6. Environment (including climate change)	1.9
7. Transport (including aeronautics)	4.2
8. Socio-economic sciences and the humanities	0.6
9. Security & 10. Space	<u>2.8</u>
Total for collaborative research	€32.4 billion

Collaborative research in the Health theme



cross-cutting issues: **Child Health & Health of Ageing population**

Budget:

➤ **€6.1 billion over 7 years (2007-2013)**

FP7 calls for proposals for the Health theme

- 1st call deadline closed 19 April 2007

- 2nd call published **19 June 2007**
 - budget: €549m
 - identifier: FP7-HEALTH-2007-B
 - **deadline: 18 September 2007**

- 3rd call should be published May/June 2008

Basic principles of calls for proposals

- annual calls – competitive basis – peer review
(between $\frac{1}{4}$ and $\frac{1}{6}$ projects selected)
- criteria:
 - Science & Technology excellence
 - Implementation
 - Impact
- minimum: 3 partners from Europe
(except SICA topics: 2 + 2)

International participation in FP7 - Health research

Short term opportunities:

- All areas open for international collaboration
- Specific opportunities in ongoing calls (SICA and other topics)

Medium term opportunities:

- Identify & promote specific areas for cooperation
examples from other regions:
 - Mouse genomics with NIH and Genome Canada
 - EU-China agreement in 4 areas

Funding levels - ceilings in the Health theme

Maximum (and minimum) funding levels for funding schemes:

	min.	max.*
➤ Small- or medium-scale focussed research project (FP)		€3m
➤ Large-scale integrating project (IP)	€6m	€12m
➤ Coordination action (CA)		
➤ Support action (SA)		
➤ ERA-Net (for cancer topic)		€2m

* except where otherwise stated in work programme.

Warning: this is an eligibility criteria !

Collaborative research in the Health theme

Activities in 3 main areas:

- Biotechnology, generic tools and technologies for human health
- Translating research for human health
- Optimising the delivery of healthcare to citizens

from FP6 to FP7:

- More continuity; broader scope.
- less focus on genomics; more emphasis on translational research.
- health policy driven research strongly reinforced.
- New: emerging epidemics, obesity, chronic diseases, biomedical technology & engineering.

Collaborative research in the Health theme

1: **Biotechnology, generic tools and technologies**

- High-throughput research
enhancing data generation, standardisation, acquisition & analysis
- Detection, diagnosis and monitoring
with emphasis on non-invasive or minimally invasive approaches
- Predicting suitability, safety and efficacy of therapies
develop and validate parameters, tools, methods and standards
(mainly through IMI) and alternatives to animal testing
- Innovative therapeutic approaches and interventions
gene and cell therapy, regenerative medicine, immunotherapy
and vaccines.

Topics from first calls in **Biotech, tools & technologies**

High-throughput research

3 topics in first call (closed)

1 topic for second call (18 September 2007):

- **SME-driven collaborative research projects for developing tools and technologies for high-throughput research (FP targeted to SMEs)**

Topics from first calls in Biotech, tools & technologies

Detection, diagnosis and monitoring

4 topics in first call (closed)

2 topics for second call (18 September 2007):

- Standardisation and improvement of pre-analytical procedures for *in vitro* diagnostics (IP)
- High throughput molecular diagnostics in individual patients for genetic diseases with heterogeneous clinical presentation (FP)

Topics from first calls in Biotech, tools & technologies

Innovative therapeutic approaches and interventions

3 topics in immunotherapy in first call (closed)

6 topics for second call (18 September 2007):

Gene therapy

- Dev. of gene therapy tools & technologies for clinical application (IP)
- Gene therapy tools targeting the central nervous system (FP).

Regenerative medicine

- Stem cell lines for cell-based therapies (IP)
- Development of stem cell culture conditions (FP)
- Stem cells for kidney regeneration (FP)
- Scientific communication and perspectives of stem cell therapy research (CA/SA)

Collaborative research on the Health theme

2: Translating research for human health

- Integrating biological data and processes: large-scale data gathering, systems biology
- Research on the brain and related diseases, human development and ageing
- Translational research in major infectious diseases to confront major threats to public health antimicrobial drug resistance, HIV/AIDS, malaria and TB, emerging epidemics, neglected infectious diseases
- Translational research in other major diseases: cancer, cardiovascular disease, diabetes and obesity, rare diseases, and other chronic diseases

Topics from first calls in **Translating research for health**

Integrating biological data and processes: **large-scale data gathering**

7 topics in first call (closed)

Systems biology

4 topics in first call (closed)

4 topics for second call (18 September 2007):

- **Multidisciplinary fundamental genomics and molecular biology approaches to study basic biological processes (FP)**
- **International activities in large scale data gathering for functional genomics (CA/SA)**
- **Preparing for the future challenges of systems biology (CA/SA)**
- **Traditional Chinese Medicine in post-genomic era (CA/SA - SICA)**

Topics from first calls in **Translating research for health**

Research on the Brain and related diseases:

6 topics in first call (closed)

4 topics for second call (18 September 2007):

- **Restorative approaches for therapy of neurodegenerative diseases (FP)**
- **From mood disorders to experimental models (IP)**
- **Neuronal mechanisms of vision and related diseases (FP)**

- **Childhood and adolescent mental disorders (FP – SICA)**
Targeted Region: Eastern Europe and Central Asia and Western Balkans

Topics from first calls in **Translating research for health**

Human development and ageing:

5 topics in first call (closed)

Collaborative research on the Health theme

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Topics from first calls in Translating research for health

Anti-microbial drug resistance:

6 topics for second call (18 September 2007):

- Novel targets for drugs against Gram negative bacteria (FP)
- Host-pathogen interactions in infections by *Strep. pneumoniae* (FP)
- An integrated platform for development and clinical evaluation of point-of-care diagnostic devices for microbial detection, antibiotic susceptibility and biomarkers (IP)
- Molecular epidemiology to control nosocomial and community spreading of highly virulent MDR strains of bacterial pathogens (FP)
- Health and economic cost of antimicrobial resistance (CA/SA)
- Conference on genetic and biochemical tools for post-genomic physiological analysis of *Staphylococcus*, in particular MRSA (CA/SA)

Topics from first calls in Translating research for health

HIV/AIDS, malaria and tuberculosis (1)

6 topics in first call (closed)

8 topics for second call (18 September 2007):

- **Network on HIV and anti-HIV drug resistance (IP)**
- **HIV and Hepatitis co-infection (CA/SA)**
- **Blocking transmission of malaria: the mosquito vector target (FP)**
- **European network for study and clinical management of TB drug resistance (IP)**
- **Support platform for the development of PRD vaccines (CA/SA)**
- ...

Topics from first calls in Translating research for health

HIV/AIDS, malaria and tuberculosis (2)

3 SICA topics for second call (18 September 2007):

- **Highly innovative research in HIV/AIDS, malaria & tuberculosis between Indian and European partners (FP – SICA)**
- **Coordination of European research activities with global initiatives, including Public-Private Partnerships (CA/SA – SICA)**

Targeted Region: ICPC

- **Next generation of researchers for HIV/AIDS, malaria, tuberculosis and neglected infectious diseases (CA/SA – SICA)**

Targeted Region: ICPC

ICPC: International Cooperation Partner Countries

Potentially new and re-emerging epidemics

8 topics in first call (closed)

Topics from first calls in Translating research for health

Potentially new and re-emerging epidemics

2 topics for second call (18 September 2007):

- Strengthening research on prediction, identification, modelling and surveillance of newly emerging infectious diseases in humans (IP)
- Definition of research needs and priorities in Europe in the area of Emerging Infectious Epidemics (CA/SA)

Neglected infectious diseases

3 SICA topics for second call (18 September 2007):

- Development of new tools to control infectious due to parasites of the Trypanosomatidae family (FP – SICA)
 - Development of *Leishmania* vaccine (FP – SICA)
 - Bioprospecting for drug leads (FP – SICA)
- } Targeted region ICPC

Collaborative research on the Health theme

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Topics from first calls in Translating research for health

Cancer

8 topics in first call (closed)

5 topics for second call (18 September 2007):

- **Innovative combination clinical trials for multimodal cancer therapy (IP)**
- **Role of inflammation in tumour initiation and progression (IP)**
- **Epidemiology of gene-environment interactions involved in carcinogenesis (IP)**
- **Translating the hypoxic tumour microenvironment (IP)**
- **Studying cancer aetiology in Latin America (FP – SICA)**

Topic for special call across the theme (31 July 2007):

- **ERA-NET on optimisation of the use of cancer registries for cancer research purposes (CA – max. €2m)**

Topics from first calls in Translating research for health

Cardiovascular disease

3 topics in first call (closed)

4 topics for second call, deadline 18 September 2007:

- **Congenital pathologies affecting the heart (FP)**
- **Cell therapies for the treatment of heart ischemia (FP)**
- **Organ imaging in CVD (FP)**
- **Integrating pharmacogenomic approaches into the treatment of CVD (FP)**

Topics from first calls in Translating research for health

Diabetes and obesity

5 topics in first call (closed)

4 Topics for second call (18 September 2007):

- Nutritional signals and the development of new diabetes/obesity therapeutic agents (FP)
- Markers and treatment for diabetic neuropathy complications (FP)
- Geno- and phenotypical differentiation of type 2 subjects and monogenic subjects (FP)
- Use of beta cell imaging in diabetes mellitus (FP)

Topics from first calls in Translating research for health

Rare Diseases

2 topics in first call (closed)

Other chronic diseases

9 topics in first call (closed)

3 topics for second call (18 September 2007):

- **Understanding and combating age-related muscle weakness (IP)**
- **Translational research for a treatment of urinary incontinence (FP)**
- **Early processes in pathogenesis of chronic inflammatory diseases (IP)**

Collaborative research in the Health theme

3: Optimising the delivery of health care to citizens

- Translating clinical research into clinical practice
patient safety, better use of medicines, benchmarking,
pharmacovigilance, etc.
- Quality, efficiency and solidarity of health care systems
organisational and financial aspects, health systems, etc.
- Enhanced health promotion and disease prevention
providing evidence of best public health measures – life styles,
interventions, special focus on mental health, etc.

Optimising the delivery of healthcare

Translating the results of clinical research...

7 topics for second call (18 September 2007):

- **Implementation of research into healthcare practice (FP)**
- **Self-medication and patient safety (FP)**
- **Patient Safety Research Network (CA)**
- **Improving clinical decision making (FP)**
- **Better use of medicines (FP)**
- **Continuity of clinical care (FP)**
- **Patient self-management of chronic disease (FP)**

Optimising the delivery of healthcare

Healthcare systems

8 topics for second call (18 September 2007):

- Evaluation of disease management programmes (FP)
- Health systems and long term care of the elderly (FP)
- Mobility of health professionals (FP)
- Health care human resource planning in nursing (FP)
- Clinician working time and patient safety (FP)
- Health outcome measures and population ageing (FP)
- Trends of population health (FP)
- European system of Diagnosis-related groups (FP)

Optimising the delivery of healthcare

Enhanced health promotion and disease prevention

5 topics for second call (18 September 2007):

- Promoting healthy behaviour in children and adolescents (FP)
- Interventions addressing the gradient of health inequalities (FP)
- Public health interventions addressing the abuse of alcohol (FP)
- Evaluation of suicide prevention strategies in European countries (FP)
- Improve vaccination coverage (FP)

Optimising the delivery of healthcare

Horizontal CA & SA

8 topics for second call (18 September 2007):

- **Disease networks of centres of reference.** Scoping study (SA)
- **Effectiveness of health investments.** Scoping study (SA)
- **Patient mobility and access to information.** Scoping study (CA/SA)
- **Brokering research into policy.** Scoping study (SA)
- **A road-map for ageing research** (CA/SA)
- **Health Services Research conference** (SA)
- **Mental health research conference** (SA)
- **Public Health intervention research conference** (SA)

Optimising the delivery of healthcare

SICA topics for health system research

4 topics for second call (18 September 2007):

- **Epidemiological investigations into long-term trends of population health as consequence of socio-economic transitions, including life-style induced health problems** (FP – SICA)
Targeted regions: MPC, Russia, Eastern European and Central Asia
- **Universal and equitable access to health care and health financing.** (FP – SICA). Targeted regions: MPC, ACP, Asia and Latin America
- **Health care intervention research – optimising hospital care** (FP – SICA). Targeted region: Western Balkans
- **Health care intervention research – improving pre-natal and maternal care** (FP – SICA) Targeted regions: ACP and MPC

MPC: Mediterranean Partner countries

ACP: African, Caribbean and Pacific countries

Topics from first calls **across the Health Theme**

(Area 4.1)

7 topics in first call (closed)

1 SICA topic for second call (18 September 2007):

- **Promotion and facilitation of international cooperation** in areas relevant to the objectives of the Health Theme (CA/SA)

Topics from first calls **responding to EU policy needs**

(Area 4.2)

Topics in first call (closed)

Topics for second call (18 September 2007):

- **Adapting off-patent medicines to paediatric populations (FP)**
- **Relative safety of non-steroidal anti-inflammatory drugs (FP)**
- **Effectiveness of fiscal policies for tobacco control in Europe (FP)**

First calls for the Health theme

- New rules for FP7
 - page number limitations for proposals
 - ceilings for the maximum EU contribution to a project
 - new requirements for information on ethics issues

Ethical framework in FP7

Same as for FP6

with a review foreseen for 2nd phase of FP7 (2010-2013)

3 areas are excluded from funding

- Human reproductive cloning
- Intentional germ line modification*
(* Research relating to cancer of the gonads can be financed)
- Creation of human embryos for research or stem cell procurement
(including by means of somatic cell nuclear transfer)

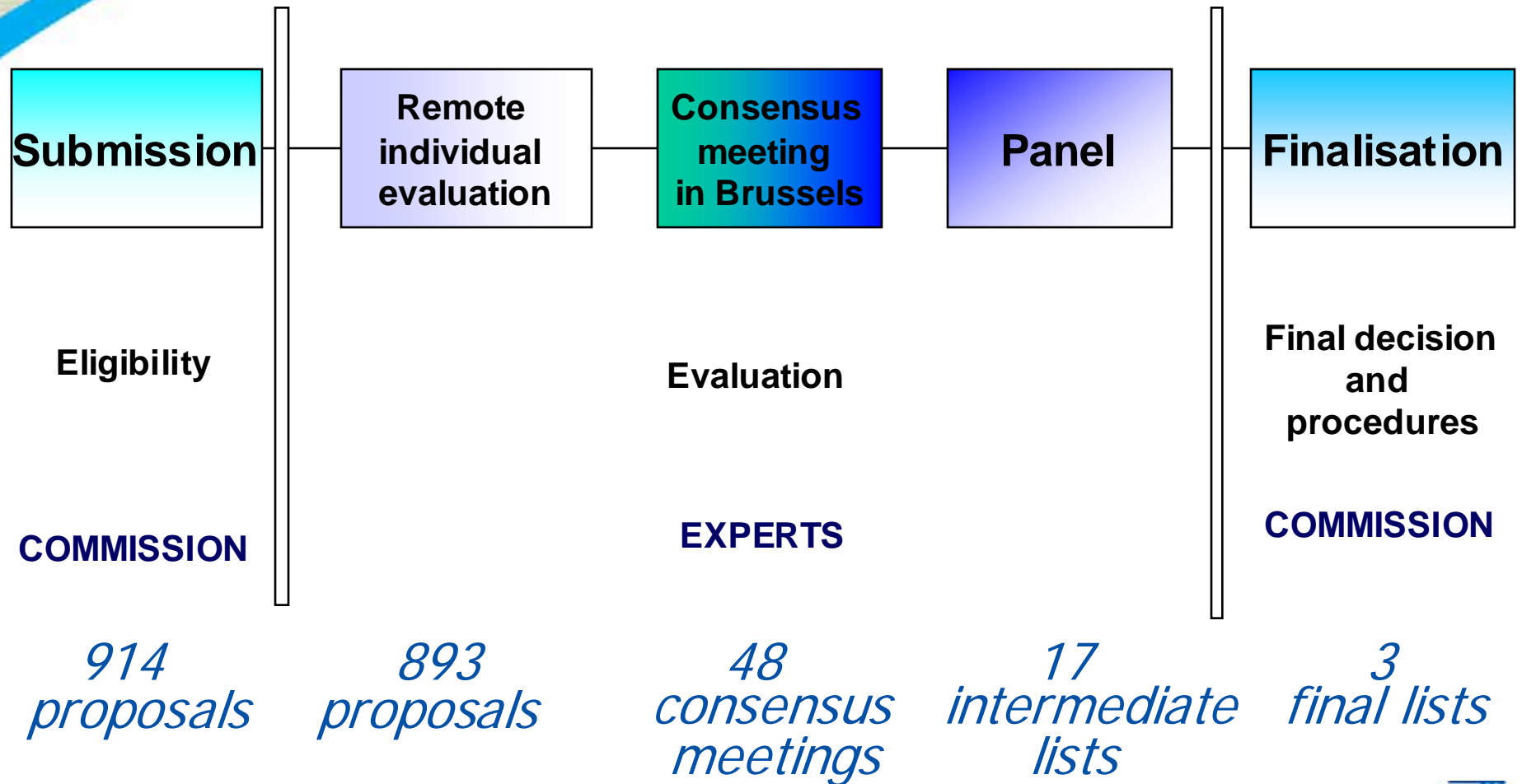
➤ new for FP7

- All the information on ethics must be included in the proposal
The EC services dealing with the ethical review will not request additional information from the co-ordinator after the evaluation.

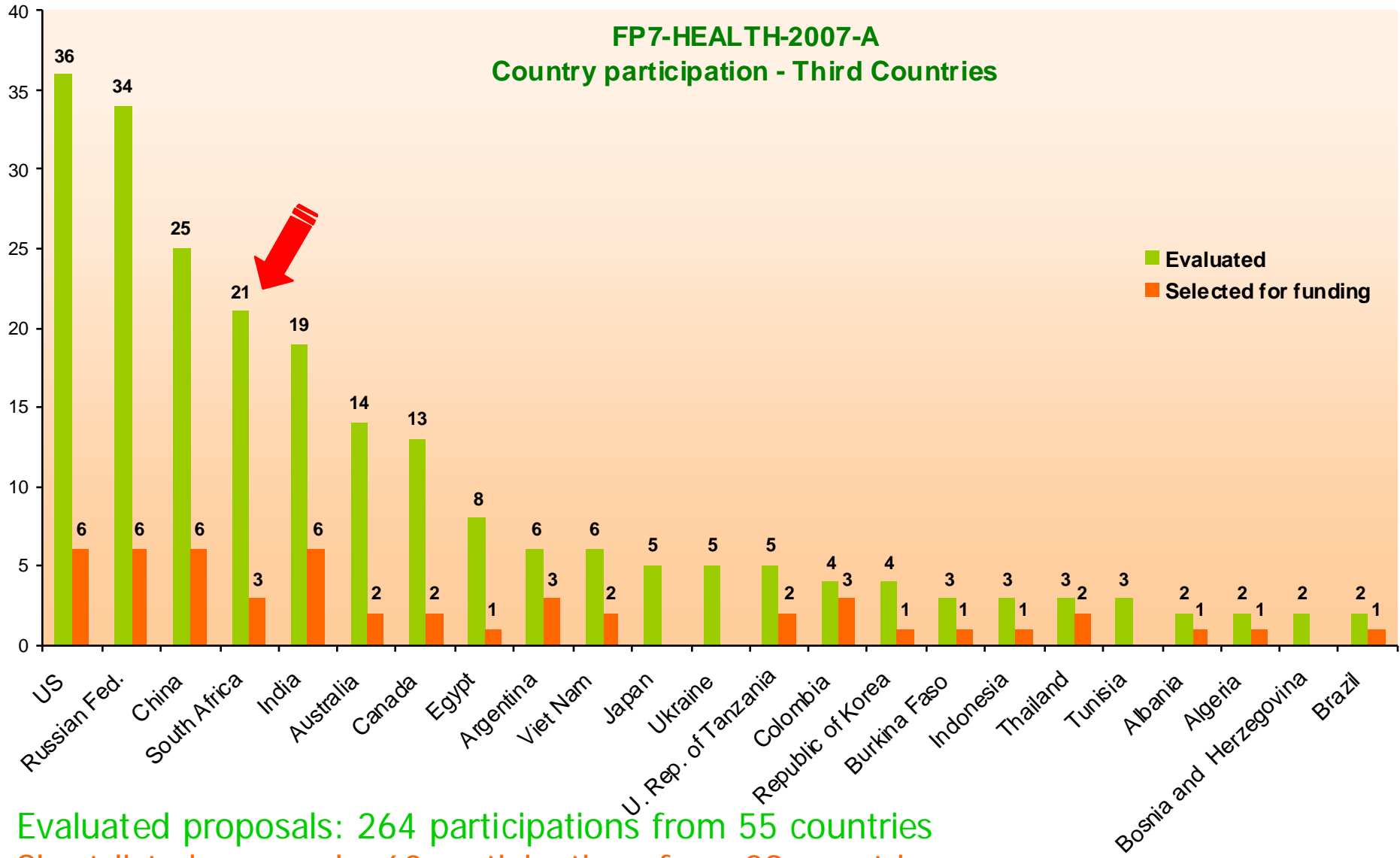
Ethics in the Health theme

- Key issues
 - for humans: *Informed Consent / Data Protection / Privacy*
 - for animals: the 3Rs (Reduce, Replace, Refine)
 - for **human embryonic stem cells**, same conditions as in FP6
- recommendations
 - *When a researcher is using personal data, animals, human tissue or human subjects, the following points should be addressed*
 - *necessity / no alternative?*
 - *benefit / burden*

The evaluation process involved 730 experts for the 1st call



International participation in 1st call



Evaluated proposals: 264 participations from 55 countries

Short-listed proposals: 60 participations from 29 countries

SA participations in 1st call of Health theme

- GEN2PHEN (IP) co-ordinated by University of Leicester, UK
University of the Western Cape, Bellville - Pr. H. Lehvaslaiho
“Genotype-to-phenotype databases: a holistic solution”
- NOVSEC-TB (FP) co-ordinated by Institut Pasteur, FR
MRC SA, Durban - Dr Alex Pym
“Novel secretion systems of Mycobacterium tuberculosis
and their role in host-pathogen interaction”
- THINC (FP) co-ordinated by Universiteit Leuven, BE
University of KwaZulu Natal, Durban - Pr. Thumbi Ndung'u
“Targeting HIV integration co-factors, targeting cellular
proteins during nuclear import or integration of HIV.”

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Contacts & Information for the Health theme

Consult the web page for **Health**:

http://cordis.europa.eu/fp7/cooperation/health_en.html
including registration as an **Expert** for evaluation

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