

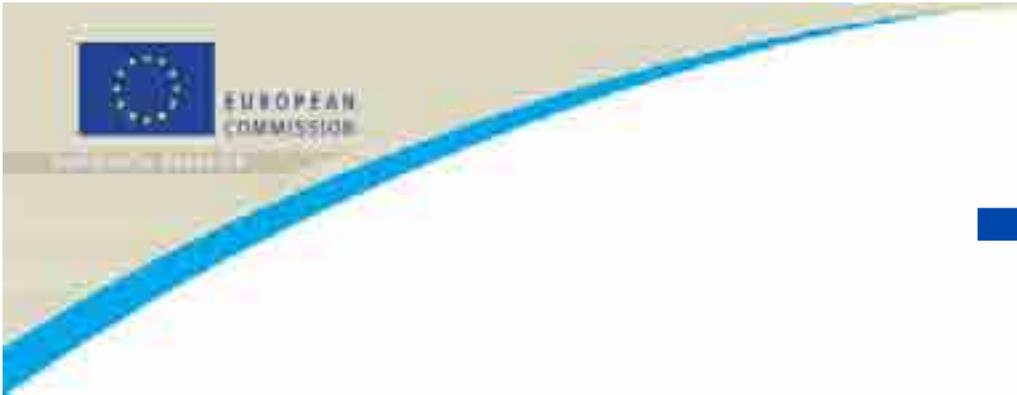


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An overview of EU funding for Brain and Related Diseases

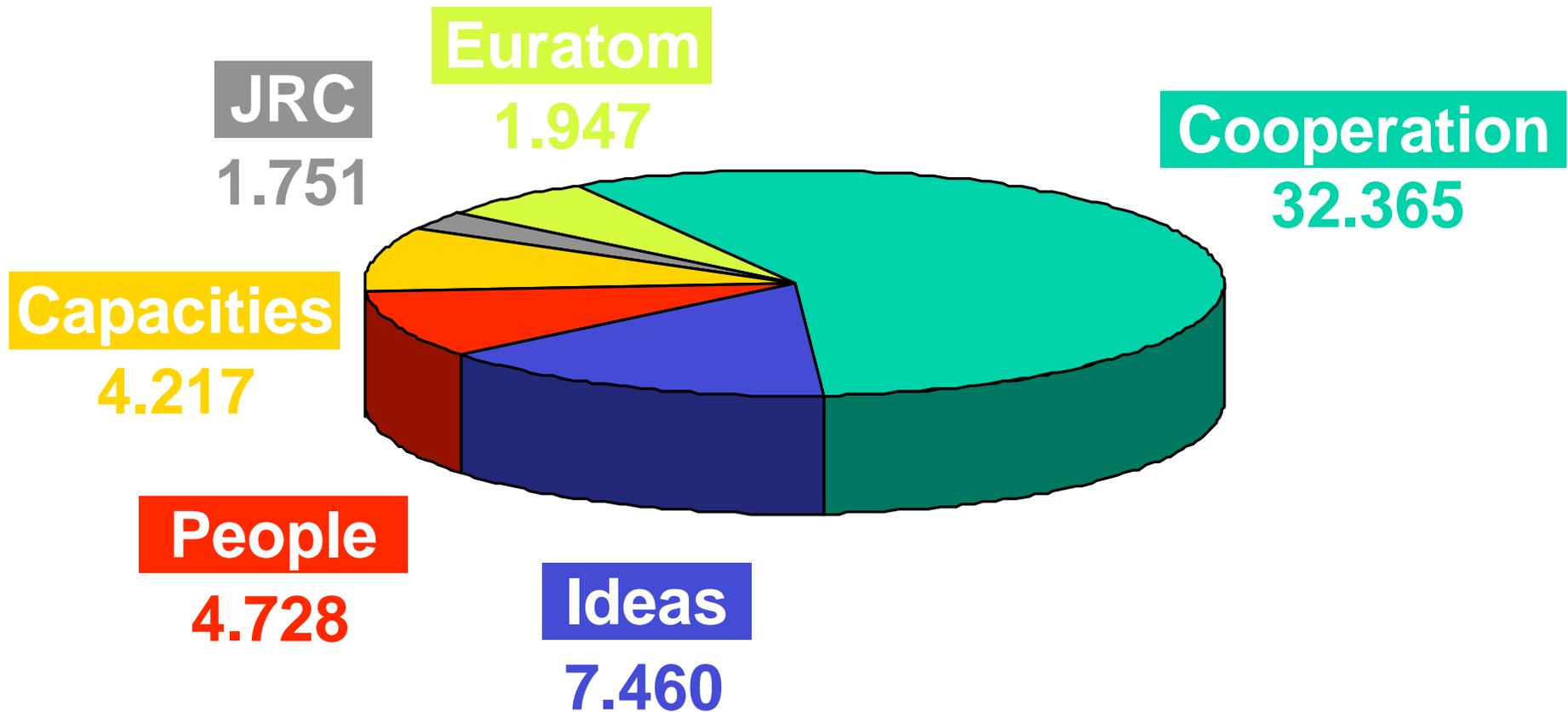
Aldo Tagliabue





FP7 2007-2013

➔ € 50.5 Billion for the Specific Programmes



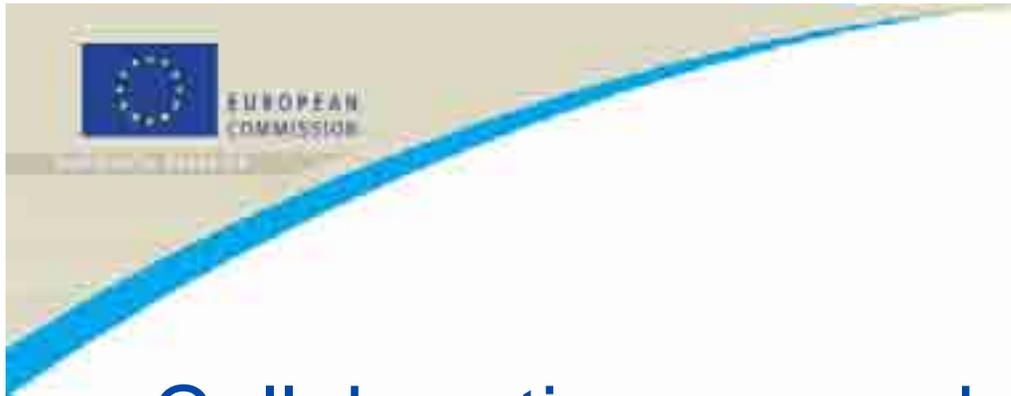
FP7 Themes

Cooperation

Million €

1. Health	6.050
2. Food, Agriculture and Biotechnology	1.935
3. Information and Communication Technologies	9.110
4. Nanosciences, Nanotechnologies, Materials and new Production Technologies	3.500
5. Energy	2.300
6. Environment (including Climate Change)	1.900
7. Transport (including Aeronautics)	4.180
8. Socio-Economic Sciences and the Humanities	0.610
9. Space	1.430
10. Security	1.350

Total 32.365



FP7 HEALTH

Policy Context

- Collaborative research
- Emphasis on translational research
- Addressing European / global health issues
- Involve biotech/health SMEs/industries, to improve competitiveness and boost innovative capacity
- Wide dissemination and use of results
- In line with Lisbon objectives

1. Call (FP7-HEALTH-2007-A)

- Topics: 89
- Proposals received: 914
- Requested budget: € 3,645 million
- Available budget: € 549 million

2. Call (FP7-HEALTH-2007-B)

- Topics: 87
- Proposals received: 902
- Requested Budget: € 3,306 million
- Available Budget: € 637 million



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Brain and brain-related diseases Objectives

The objectives are to better understand the integrated structure and dynamics of the brain, and to study brain diseases including relevant age related illness (e.g. dementia, Parkinson's disease) and search for new therapies.

The focus will be to gain a global understanding of the brain by exploring brain functions, from molecules to cognition including neuroinformatics, and brain dysfunction, from synaptic impairment to neurodegeneration.

Research will address neurological and psychiatric diseases and disorders, including regenerative and restorative therapeutic approaches.



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First Call

Brain and brain-related diseases

Topics for first call, deadline 19 April 2007

2.2.1-1: Stroke and mechanisms underlying ischemic brain damage

2.2.1-2: Coding in neuronal assemblies

2.2.1-3: Neurobiology of anxiety disorders

2.2.1-4: Memory loss: underlying mechanisms and therapy

2.2.1-5: From basic spinal mechanisms to spinal cord disease and trauma

2.2.1-6: Neuron-glia interactions in health and disease.



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Second Call

Brain and brain-related diseases

Topics for first call, deadline 18 September 2007

2.2.1-7: Restorative approaches for therapy of neurodegenerative diseases.

2.2.1-8: From mood disorders to experimental models.

2.2.1-9: Neuronal mechanisms of vision and related diseases

2.2.1-10 Childhood and adolescent mental disorders. SICA

ALTA



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Third Call

Brain and brain-related diseases

December 2008

- 2.2.1-1: Synaptopathies: genesis, mechanisms and therapy**
- 2.2.1-2: Identifying genetic and environmental interactions in schizophrenia**
- 2.2.1-3: Optimising current therapeutic approaches to schizophrenia**
- 2.2.1-4: Understanding the blood brain barrier (BBB) to improve drug delivery to the brain**
- 2.2.1-5: Psycho-social factors of brain disorders**



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Fourth Call 2009

Around 6.2 million people are estimated to suffer from different types of dementia (concentrated on older people), of which Alzheimer's disease (AD) accounts for around three-quarters of cases. Taking into account their careers and families, for whom caring often becomes a heavy personal and financial burden, some 20 million people are affected, i.e. around 4% of the European population

The French Presidency of the Council has identified Alzheimer's disease as a particular priority. The Council adopted on 26 September 2008 conclusions on a common commitment by the Member States to combat neurodegenerative diseases, in particular Alzheimer's disease.

On 2 December 2008 the Council adopted conclusions on "Joint Programming" which also refer to the conclusions adopted on 26 September considering it necessary to launch a pilot "Joint Programming" initiative on combating neurodegenerative diseases, particularly Alzheimer's disease

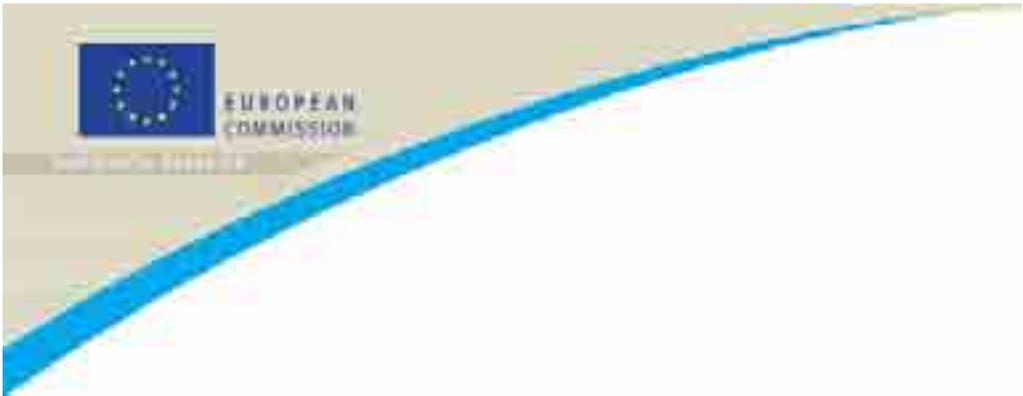


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Fourth Call 2009

This concept might well contribute to the implementation of a European Partnership on Alzheimer's disease. The area of Alzheimer's disease is suitable for such a partnership not only because it addresses a major medical and socio-economical issue, but also because there is a real need for pooling and coordinating the efforts of European basic and clinical researchers in this field. Considering that most research on Alzheimer's disease is still at the pre-clinical phase, public research will be instrumental to any breakthrough.

The Commission services currently explore how best to support such an initiative via the HEALTH-2010 work programme.





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European Research Council

- Projects initiated by researchers in all areas
- European-wide research funding
- ⇒ Excellence as the only selection criterion
- Individual researcher
- 100% reimbursement of costs
- Two funding schemes
 - ⇒ For researcher at the start of their career
“starting independent researcher scheme”
 - ⇒ For established researcher
”advanced investigator scheme”



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“Starting independent researcher scheme” (2 - 9 years after doctoral degree)

- **9167 Proposals submitted**
- **8794 Proposals evaluated (“Peer Review“)**
- **559 Applicants invited to second stage submission**
- **554 Second stage full applications**
- **431 Proposals fulfilled excellence criterion**
- **100.000 to 400.000 €/year for max. 5 years**
- **~ 290 Mio. € available: ~ 300 projects to be funded**



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First Advanced Grant Competition 7 Nov 2008

The ERC Advanced Grant, of up to € 3.5 million for 5 years, is targeted at outstanding, established research leaders, who will perform their research in any EU member state or associated country.

The Scientific Council expects that at least 275 grants will be awarded in this call, with a total budget of €542 million.



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Prof. Michael Brecht Humboldt-Universität zu Berlin DE

Neuro-behavior

From Neuron to Behavior

Prof. Matteo Carandini-University College London UK

CORTEX

Computations by Neurons and Populations in Visual Cortex

Prof. Patrik Ernfors-Karolinska Institutet SE

STEMRENEWAL

Identification of a new mechanism of stem cell self-renewal; direct implications on self-repair and tumor initiating cells in the brain

Prof. Dimitri Michael Kullmann University College London UK

InterPlasticity

Long-term synaptic plasticity in interneurons: mechanisms and computational significance

Prof. Edvard Ingjald Moser-Norwegian University of S& T NO

CIRCUIT

Neural circuits for space representation in the mammalian cortex

Prof. Mart Saarma Helsingin yliopisto FI

CDNFPark

Biology and therapeutic potential of a novel family of neurotrophic Factors

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The Innovative Medicines Initiative

A winning case for Joint Technology Initiative Status



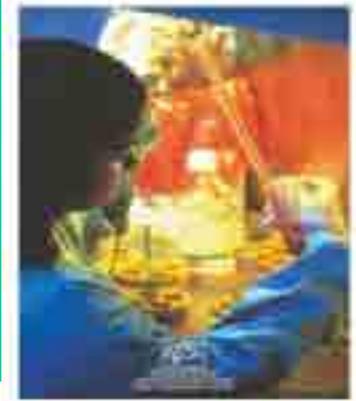
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It's about people living longer, healthier and more productive lives



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It aims to improve the way new medicines are discovered for the benefit of patients



Key R&D bottlenecks to overcome:

 **Safety:** Making medicines safer

 **Efficacy:** Making Medicines more effective

Initial focus on Cancer; Brain disorders; Inflammatory diseases, Diabetes and Infectious diseases

 **Knowledge Management** : Using new technologies to manage and organise data to create knowledge so scientists can predict benefit and risk of new therapies

 **Education and Training:** Addressing expertise gaps in Europe

Alzheimer's Diseases

For ***Dementia***, some patients receive moderate symptomatic relief with acetyl cholinesterase inhibitors (AChEI) or NMDA receptor inhibitors (memantine).

There is a clear need for disease-modifying agents that could slow or stop the progression of Alzheimer's disease, and for more effective symptomatic treatments, including medicines with improved efficacy on behavioural symptoms, both cognitive and noncognitive, in all dementias.

There is a clear need for diagnostic tools for patient selection, and for improved surrogates to approved efficacy end-points. Because of the complex pathophysiology, it is likely that multiple therapies will be required to manage symptoms and control disease in individual patients.



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Parkinson's Disease

In patients with *Parkinson's*, levo-dopa and dopamine agonists have been used as symptomatic treatments for more than 30 years, but there are still no disease-modifying therapies, and patients become tolerant to existing symptomatic treatments.

As a result, the greatest unmet need is for disease modifying treatments.



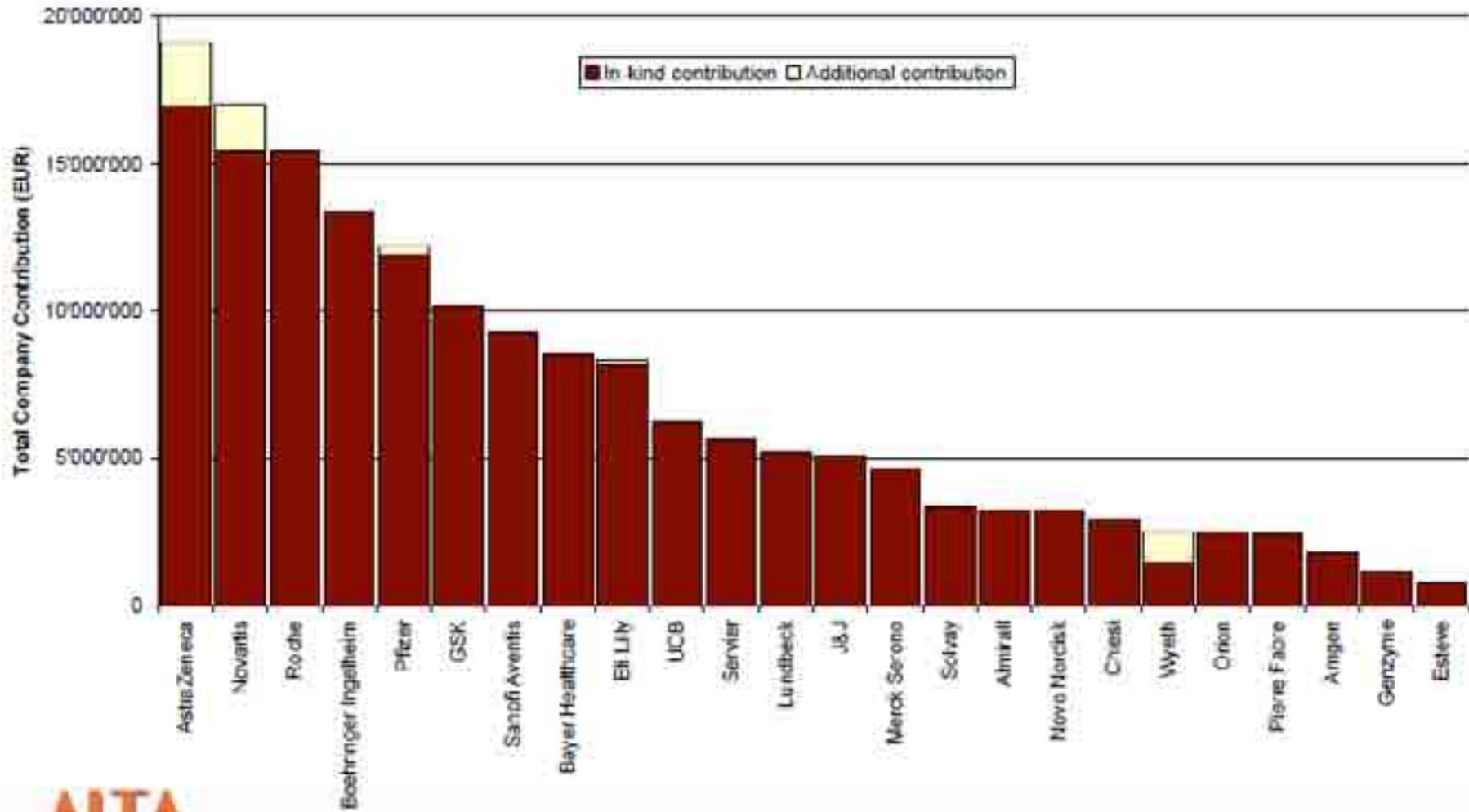
2008 Call Topics

1. Predictivity of Immunogenicity
2. Non-genotoxic carcinogenesis
3. Systems for in silico tox prediction
4. Predictivity of non-clin Safety Evaluation
5. Qualification of Trans'l safety biomarkers
6. Pharmacovigilance: better B/R Monitoring
7. Islet cell research
10. New Tools in Psychiatric Disorders
11. Neuro-degeneration
12. Understanding Severe asthma
13. COPD Patient Reported Outcomes

Education & Training Programs:

- 14) EU Research Training Network
- 15) Safety Sciences for Medicines
- 16) Pharmaceutical Medicine
- 17) Integrated Medicines Developm't
- 18) Pharmacovigilance

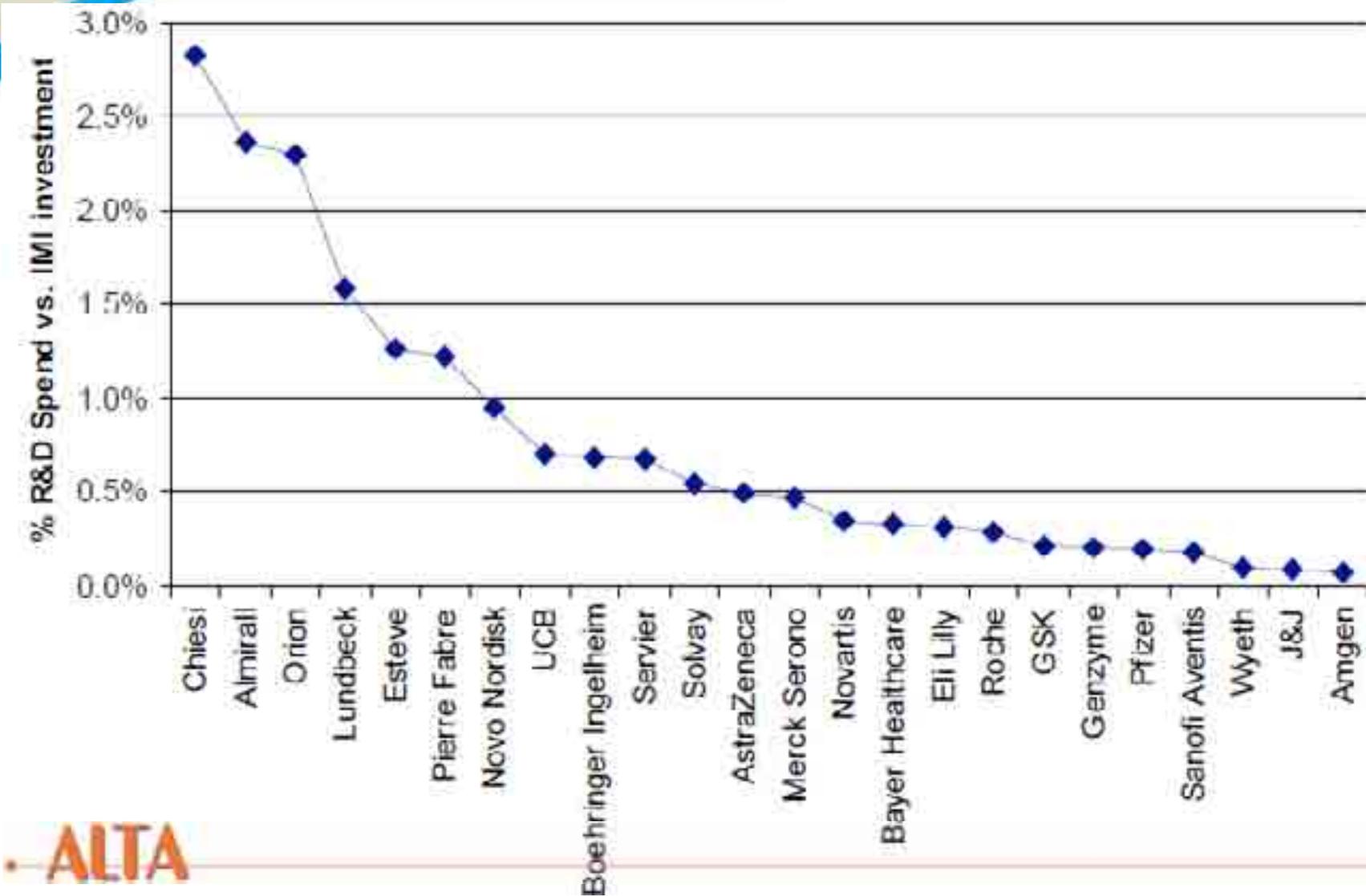
Total individual company contributions in 2008 IMI Call Topics





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Proportionally, 'smaller' companies are investing more in IMI; based on their 2007 R&D spend



9 topics selected for the 2009 Call

1. Imaging biomarkers for anticancer drug development
2. New tools for target validation to improve drug efficacy in oncology
3. Molecular biomarkers: accelerating cancer therapy development and refining patient care
4. Identification and development of rapid point of care diagnostic tests for bacterial diagnosis to facilitate conduct of clinical trials and clinical practice
5. Drug/disease modelling: library & framework
6. Open pharmacological space
7. Electronic Health Records (EHR) data re-use for supporting medical research
8. Understanding aberrant adaptive immunity mechanisms in human chronic immune-mediated diseases
9. Translational research in chronic immune-mediated disease: bridging between animal models & humans



Information

- **EU Research:** <http://europa.eu.int/comm/research>
- **Seventh Framework Programme:** http://europa.eu.int/comm/research/future/index_en.cfm
- **Research Programms and Projects:** <http://www.cordis.lu>
- **Additional Information for SMEs:** http://cordis.europa.eu/fp7/cooperation/health-additional_en.html
- **EMEA SME Office:** <http://www.emea.eu.int/SME/SMEoverview.htm>
- **ERC:** http://ec.europa.eu/erc/index_en.cfm
- **RTD Info Magazine:** <http://europa.eu.int/comm/research/rtdinfo/>
- **Information:** research@ec.europa.eu





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