THE FUTURE OF HEALTH RESEARCH AND INNOVATION IN EUROPE:
THE NEED FOR STRATEGIC ACTION

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REPORT OF THE CONFERENCE

A landmark meeting co-organised by the European Commission's Directorate General for Research and Innovation and the Alliance for Biomedical Research in Europe (BioMed Alliance) took place in Brussels on 23 May 2012. The interactive event aimed at gathering stakeholders' views on how health research and innovation (R&I) can be more effectively and strategically co-ordinated in the European Union. Over 100 high-level attendees from the European arena and EU Member States, including the health research community, patient organisations, and eminent scientists, were present at the event.

The BioMed Alliance, a consortium of 21 health research organisations representing around 250,000 scientists, calls for a strategic EU funding and programming approach across the entire health spectrum to help science achieve true innovation that can create a healthier and prosperous environment for Europe's citizens.

The high-level meeting took place in the run up to the launch of the EU's next Framework Programme for research and innovation, Horizon 2020, which will be running from 2014 to 2020. This meeting, therefore, provided a unique opportunity to openly discuss the issues in an interactive forum involving a broad range of experts, with presentations from biomedical researchers, patient groups, industry and policymakers as well as key input from essential stakeholders.

"ACHIEVING A HEALTHIER EUROPE THROUGH RESEARCH & INNOVATION: DEFINING THE NEEDS"

Moderators: Gordon McVie, Senior Consultant, European Institute of Oncology
Laurent Nicod, Treasurer, Alliance for Biomedical Research in Europe

» THE ROLE OF RESEARCH IN ADDRESSING SOCIETAL CHALLENGES

Roger Bouillon, Emeritus Professor of Medicine KU Leuven, Member of the European Medical Research Councils (EMRC) Core Working Group

In this presentation, Prof. Bouillon discussed the societal impact of medical research with the example of the cancer vaccine for genital cancer and then further discussed the major societal challenges of rising life expectancy, obesity and metabolic syndrome. He said the societal impact on research is enormous and there is a large discrepancy between what the normal citizen wants (better health) and the public effort to support health research, whereas it has been well demonstrated that biomedical research is the best way to tackle these issues. Despite this, the 13 billion Euros spent on biomedical research and development (R & D) in the EU in 2011 was dwarfed by the more than 28 billion spent in the USA. Prof Bouillon underlined the difficulties faced by Europe by saying that the amount spent per head of population per year on R & D is 82 Euros in the USA, and just 25 Euros in the EU (for full report see the "White paper 1 and 2 from the European Medical Research Council of the European Science Foundation).

"The share of spending dedicated to health research in Europe must increase," said Bouillon. "Biomedical research in Europe is showing signs of disease and needs its own diagnosis and treatment plan," he added. "We need to remove 'bottlenecks' on health research in many EU countries, and initiate an efficient funding system for international health research which generate greatest societal impact." He concluded by stating that greater investment in biomedical and health research create multiple win-win situations as patients (and thus ultimately all of us), health care providers and the biomedical industry (from small start-ups to larger biotech companies and even the large pharmaceutical companies) will gain. Without a major change in attitude, Prof Bouillon believes we will see an accelerated shift of these important activities of innovation in health to other parts of the world, and especially to the rapidly growing BRIC (Brazil, Russia, India, China) countries and especially to Asia. "We have a common responsibility to no longer accept that just a little more that 10% of the EU research budget is spent on health research."

» HEALTH CHALLENGES FACING EUROPE: TIME TO ACT

David Wood, Garfield Weston Professor of Cardiovascular Medicine, Imperial College London

David Wood discussed how non-communicable diseases (NCDs), while treatable, are causing an increasing contribution to the burden of disease (86% of deaths in the EU). Costs due to these conditions (related to treatment, care, and productivity losses) threaten the EU's 2020 targets. The case of cardiovascular disease (CVD) is exemplary. Indeed, diseases of the heart and circulatory system are the number one killer in Europe, accounting for 48% of all deaths. CVD is also estimated to cost the EU €192 billion a year. He also underlined the morbidity burden from all NCDs— while often not the primary cause of death, NCDs nonetheless inflict a huge burden on health systems and should thus be addressed by primordial prevention at population level and primary prevention for high-risk individuals. Though NCDs have common risk factors and underlying causes and may thus be addressed together, only 3% of health spending is devoted to prevention. Wood suspects that this might be linked to the politician's lifespan, which only runs until the next election and therefore focuses on quick wins rather than on prevention which requires long-term investments and standards. Wood concluded: "We need prevention, early detection and treatment of symptomatic disease. We should be embracing the whole spectrum of scientific research. There is also a need for more evidence on effectiveness and cost-effectiveness."

» THE NEED FOR COORDINATION AMONGST DISEASE AREAS: TACKLING CHRONIC DISEASES

Geoffrey Laurent, Director of the Centre for Respiratory Research, University College London

Geoff Laurent, a basic scientist by training and the Director of the Centre for Respiratory Research at University College London (UCL) emphasised that in the health research arena "we need to break down traditional disease 'boundaries' since many chronic conditions share the common cellular pathways and molecular mechanisms and other pathways—and to do this, we need an instrument to improve cross-talk and networking between the different clinical disciplines e.g. diabetes, kidney, heart. He suggested that basic scientists could be a catalyst in triggering this cross-disciplinary interaction because they are less bound to thinking in silos. Basic scientists are driven to uncover molecular or cellular mechanisms regardless of the discipline, unlike medical doctors who are much more bound to their discipline. "Cross-fertilisation between clinical disciplines is vital to efficiently exploit basic research discoveries," said Laurent.

Another aspect highlighted by Laurent was the important lessons he had learnt from pharmaceutical companies and that they could be a resource for researchers. Within a pharmaceutical company it is not uncommon for different research groups to exchange results with each other in their search for common biomarkers as potential drug targets. They communicate much more across the different disease areas internally and Laurent learnt much from the commercial field on successful cross-disciplinary working methods, and they also gained from his experience as a basic scientist. Laurent concluded by saying that "multi-and interdisciplinary research teams will be required to solve the "puzzle" of complex diseases and conditions."

» IDENTIFYING AND TRAINING THE BEST AND THE BRIGHTEST: INVESTING IN EU RESEARCHERS

Valentin Fuster, Director, Cardiovascular Heart Center, The Mount Sinai School of Medicine, New York & Director, The Centro Nacional de Investigaciones Cardiovasculares (CNIC), Madrid

Valentin Fuster presented the Centro Nacional de Investigaciones Cardiovasculares (CNIC) and one of its initiatives, which has the dual aim of identifying and inspiring tomorrow's scientists and promoting excellence in cardiovascular research, as well as providing the institute with a modern infrastructure and ample funding to carry out world-leading biomedical research. The institute combines public and private funding that allows continuous discovery of young researchers. The CNIC-JOVEN programmes are designed to attract young people to a career in biomedical research and to create a wellspring of talented cardiovascular researchers for the future. CNIC's training activities include programmes at all levels, from secondary education to the training of postdoctoral researchers and other young professionals. The CNIC promotes training at foreign institutions and participants are closely followed up on their careers. Programmes are carefully designed to obtain a return on the investment for the institute after their training.

According to Fuster, who believes this initiative at CNIC can be replicated anywhere in Europe, "Passion and commitment are required to inspire donors and persuade them to invest in talented researchers. Europe should not tolerate the brain drain any longer."

"HEALTH RESEARCH & INNOVATION IN EUROPE: COORDINATION AS A SUCCESS FACTOR"

Moderators:

Christian Suojanen, Head of Life Sciences, Valor Management S.A.
Karin Sipido, Vice-President, Alliance for Biomedical Research in Europe

» HIGH QUALITY RESEARCH THROUGH COMPETITIVE FUNDING: LESSONS FROM THE EUROPEAN RESEARCH COUNCIL

Eero Vuorio, Director of Biocenter Finland & Chair, European Research Council Identification Committee

Eero Vuorio gave his insights from the EU Framework Programmes 6 and 7, where he chaired the impact assessment group. He said we are seeing major paradigm shift in medical research, citing the initiatives for large-scale collaborations such as the Innovative Medicines Initiative (IMI) and Joint Programming Initiatives for pan-European collaborations. He added that Europe has a golden opportunity to take the lead in new type of medical research, through population records, registries, and a compliant population.

» COORDINATION AND ORGANISATION OF CLINICAL TRIALS

Françoise Meunier, Director General, European Organisation for the Research and Treatment of Cancer (EORTC)

Françoise Meunier said that independent international investigator-driven clinical trials (IDCT) are crucial for independent and objective evaluation of new drugs, or therapeutic strategies using already authorised drugs to identify ineffective and redundant treatments. IDCTs are especially important in the fields of rare diseases or ageing morbidities, i.e. fields that are less attractive for the pharmaceutical industry. Collaboration between academia and industry is important for accessing new drugs and for realizing more efficient and effective research and thereby reduced attrition rates. Public funding for IDCTs in Europe is very sparse; they require better support. Multidisciplinary collaboration must be encouraged. "We should stop competing between basic and clinical research: it's now all translational," said Meunier. "We should integrate the various clinical and translational research disciplines and work together for the benefit of patients."

The current EU legal framework pertaining to clinical research is heterogeneous, unnecessarily complex and without added-value for the citizens. It is vital to overcome legal and bureaucratic hurdles that can be seen to stifle innovative international clinical trials in Europe, in order to provide rapid access to innovative therapies for patients. "We must aim to streamline, simplify, and harmonise the implementation of the EU Clinical Trials Directive," said Meunier. In her presentation, she also mentioned the frustrations of many partners/consortia at the lack of continuity of grants from the European Commission (once grants expire it usually means the end of a project), adding she believed that a long-term strategy is required. Facing the current drop of clinical trials conducted in Europe, there is a need to search for new model of cooperation between academic and pharmaceutical industry and restore trust.

» NEW OPPORTUNITIES OFFERED BY PUBLIC-PRIVATE PARTNERSHIPS: THE IMI MODEL

Michel Goldman, Executive Director, Innovative Medicines Initiative (IMI)

Michel Goldman presented the model of the IMI, which is Europe's largest public-private initiative aiming to speed up the development of better and safer medicines for patients at an acceptable cost. The European pharmaceutical industry is facing an unprecedented range of challenges: patent expiry, competition from the generics market, an overly-regulated area, unpredicted drug failures in late phase of development, and a drop in R&D productivity—all accumulating to cause a lack of incentive for industry to invest in R&D. IMI was created to help break this stalemate, with a €2 billion budget, half from the European Federation of Pharmaceutical Industries & Associations (EFPIA), the other half from the European Commission.

The consortia include several pharmaceutical companies working together with academia, SMEs, hospitals, regulators and patients' organisations in non-competitive research projects to solve these challenges. Goldman illustrated the various types of successful IMI-projects launched since the programme's inception in 2007 that have provided outputs in areas such as improved knowledge management, biomarkers, patient stratification, better trained scientists, early dialogue with regulators, and improved clinical trial design.

Goldman concluded his presentation with a pertinent example, the upcoming launch of the 6th IMI call on combating antimicrobial resistance entitled "newdrugs4badbugs". This call

addresses the problem that only two new classes of antibiotics have been brought to the market in the past 30 years, and many drug developers have left the field.

» RARE DISEASES: EUROPEAN COORDINATION AT A GLANCE

Béatrice de Montleau, Board Member, Rare Diseases Europe (EURORDIS)

Béatrice de Montleau introduced the audience to EURORDIS, a non-governmental alliance of patient organisations and individuals active in the field of rare disease, dedicated to improving the quality of life of all people living with rare disease in Europe. In particular in rare diseases, which by definition affects less than 1 in 2000 individuals, there is a need to pool patients and expertise, share registries, harmonise, and enhance dialogue between Member States and Europe.

At the same time she reminded the audience that there are more than 5000 rare diseases, but collectively they affect up to 10% of the population of Europe. de Montleau moreover highlighted the International Rare Disease Research Consortium, that gathered globally 25 funders including the European Commission and the US National Institute for Health, with two main objectives: 200 new therapies for rare diseases by 2020 and diagnosis for everyone with a rare disease.

Dr Draghia-Akli added that given the facts that only around 10-30% of people with a rare disease in Europe have access to treatment, there is a clear and unquestionable need for progress in this field.

"THE FUTURE OF R&I IN EUROPE: THE NEED FOR A STRATEGIC ACTION"

Moderator:

José Mariano Gago, Advisor, Alliance for BioMedical Research in Europe
Ulf Smith, President, Alliance for Biomedical Research in Europe

The following session allowed for a broad presentation of the points of view of the European Commission, of the High-Level group of experts reflecting on Horizon 2020 and of the BioMed Alliance on the ways in which a strategic action for health research could integrate current discussions at EU level on the future of R&I.

» HEALTH RESEARCH IN HORIZON 2020: THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION (2014-2020)

Ruxandra Draghia-Akli, Director, DG RTD, European Commission

Dr. Ruxandra Draghia-Akli affirmed the desire of all present to propose a coordinating strategy at European level and among various stakeholders that works for patients and scientists without being more bureaucratic. The question of *how* this is to be accomplished remains currently elusive. She said that examples of successful strategic collaboration such as Innovative Medicines Initiative (IMI) and the European Commission Joint Technology Initiatives will continue, but that the way in which Europe addresses other common challenges and opportunities is yet to be seen. Strategic coordination is necessary across Europe, involving the European Commission, Member States, academia and industry. It would be better, she said, to have one pan-European plan instead of 28 Member State plans in specific given areas, and the example of the complexity and large-scale strategy required for stratified/personalised medicine was given. Draghia-Akli said that IMI had demonstrated it was possible to have tangible deliverables in less than 2 years after beginning an initiative at a pace that no other funding scheme allows. This program is truly bridging the gap between science, health and growth.

She added that harmonisation is not simplification. "We need to learn one size does not fit all. Lessons must be learned from FP7 and public-private partnerships (PPP) to find the right balance between what can be harmonised and what needs to be adapted," she said.

Improvements still need to be made in Europe to address low coordination, high fragmentation, and to address the much lower funding in Europe for biomedical research. She referred to the

increasing global pressure, causing biomedical companies to find Europe challenging and move elsewhere; meanwhile the US, Japan, and South Korea are all pulling ahead in terms of innovation. "Horizon 2020 provides support, but strategic co-ordination throughout Europe is necessary. We need to consider how European level funding works in concert with other funding streams" concluded Draghia-Akli. "The Commission is willing to hear stakeholders' opinions. How can the idea of a strategic action for health research be advanced to the next level?"

» HORIZON 2020: REPORT FROM THE EC HIGH LEVEL GROUP ON HEALTH RESEARCH AND INNOVATION IN THE EU

Liselotte Højgaard, Chair, European Medical Research Councils (EMRC), President, Copenhagen Research Forum & Member, European Commission High-Level Group on Health Research and Innovation in the EU

Højgaard started her presentation with the importance of sustaining medical research in Europe. A recent visit to Singapore showed her that Europe is crucially falling behind in medical research with competitors, not only the USA but increasingly Asia, who are investing heavily in biomedical research. Moreover, the case for medical research in terms of return on investment is clear following a report published by the UK Medical Research Council and Wellcome Trust which showed that we get a 39% return for every £ invested in medical research for each of the following years. Hojgaard welcomed the Commission's next framework proposal, 'Horizon 2020', and she highlighted the outcomes of the *Copenhagen Research Forum* — a platform for 800 scientists — which she chaired and which provided recommendations to Horizon 2020. One of the issues highlighted by the Forum was that whereas 12% of FP7 funding went to health, only 8% of the proposed Horizon 2020 budget is actually dedicated to health. Another important issue was the paradigm shift brought about by personalised medicine and the continued importance of prevention for lifelong health. Prevention, diagnosis, and treatment based on genes and epigenetics are needed, making full use of biobanks, databases, and technology.

Højgaard referred to the US National Institutes of Health (NIH) and Food and Drug Administration (FDA) coming together to embrace '4P medicine' (predictive, preventive, personalised and participatory medicine) and the need to make sure Europe was not left behind. She reiterated the earlier point that the USA spends three times what Europe spends on

R & D. An instrument for the strategic planning of health research (such as the EuCHR suggested by the BioMed Alliance) could deliver new taxonomy leading to personalised medicine and a molecular based redefinition of major diseases by 2020. She also highlighted the need to support European multinational clinical trials in order to validate new innovative products and concepts and to promote rapid introduction in routine patient care. "Europe really needs to join forces to exploit the future of personalised medicine," concluded Højgaard.

» THE EUROPEAN COUNCIL FOR HEALTH RESEARCH (EUCHR): A STRATEGIC PLAN FOR EUROPE

Julio E Celis, Vice-President, Alliance for Biomedical Research in Europe

Julio Celis outlined the potential functions of the European Council for Health Research (EuCHR), which in the views of the BioMed Alliance embodies a strategic action for European health research and is urgently needed to increase knowledge throughout the health research continuum (health promotion and prevention, development of diagnostics and medicinal products, treatment improvements and health services research) and to address the huge health challenges facing Europe. Summarising the main points raised in the BioMed Alliance Concept Paper, Celis indicated that the EuCHR will boost innovation in health research and would ensure expert scientific input on policy from the outset. The EuCHR would:

- Have a bottom-up structure and be led by excellent scientists
- Incorporate all relevant stakeholders
- Define and support high-level health research programmes that have a potential to make a difference
- Promote longer-term collaborative initiatives that address the limitations imposed by the Innovation Cycle
- Seek better coordination and strategic planning of research funding programmes at the European level
- Provide strategic advice on steering European health research to policy-makers
- Provide scientific advice for new regulatory measures to ensure progress of health research
- Encourage the contribution of other science and technology fields to stimulate cross-talk and innovation and,
- Ensure that advances in one clinical area benefit others

Celis mentioned that the EuCHR could take inspiration from bodies such as the European Research Council (ERC), although its structure and governance are yet to be defined.

Panel Discussion

"THE FUTURE OF R&I IN EUROPE: THE NEED FOR A STRATEGIC ACTION – VIEWS FROM STAKEHOLDERS"

Moderators:

Liselotte Højgaard, Chair, European Medical Research Councils (EMRC), President, Copenhagen Research Forum
Julio E Celis, Vice-President, Alliance for Biomedical Research in Europe

The panel discussion allowed for comments and views expressed from the researchers', patients', public health and industry perspectives.

» *Alice Dautry, Director General, Institut Pasteur, FR & Member, Heads of International Research Organizations (HIROS)*

Prof Alice Dautry said she supports an interdisciplinary approach, and re-emphasised that better coordination at European level is crucial (between national funders, Member States and the European Commission). She pointed out that the health sector often is a driver of the economy and should not be considered as only a financial burden. Social and behavioural scientists would also need to be included in future initiatives, said Dautry, in particular to help understand how best to implement preventive interventions that target certain subgroups in a population. As an example, Prof Dautry mentioned the immense challenge of addressing young people, especially young women, not to start smoking, and encouraging the importance of healthy eating and physical activity. A clinical/biomedical approach on its own would not work to address today's public health challenges.

» *Nicola Bedlington, Director, European Patients' Forum (EPF)*

Ms Bedlington stressed the need for research with the patient and to empower patient advocates. "Patients can and should have more involvement in planning/ designing research; interpreting the results of research, and disseminating results," said Bedlington. She praised the 2011 FP7 calls which saw significant improvement in patient involvement. Finally, Ms. Bedlington referred to the European Patients Academy on Therapeutic Innovation (EUPATI): an unprecedented collaboration that will train patient leaders and patient advocates. "There would

be many opportunities for patients to work with any future EuCHR," concluded Bedlington, "We need to see patients as equal partners in research."

» *Monika Kosinska, Secretary General, European Public Health Alliance (EPHA)*

Monika Kosinka said that the existing innovation model was no longer working properly and that we needed to suspend our ideas about how we should operate and think bigger, adding that much innovation today is by small enterprises. With regard to public health research funded by the taxpayer, she questioned whether the taxpayer should pay for it twice, once for the research and once to the company with the patent or whether some of the new models available should become mainstreamed. Whether research is for policy or practice, the vital aspect is translation. She also highlighted the links between medical challenges and environmental challenges, and importance of both the timeliness of research and also additional factors such as the multi-disciplinary skills needed by researchers today, including some degree of social leadership and advocacy.

Kosinska also discussed a recent meeting she had attended at the OECD, in which she said the message from policymakers - and supported by some industry present - was that personalised medicine is not viable or cost-effective and therefore still a 'pipe dream': this contrasted sharply with the comments she had heard during this current BioMed Alliance meeting. Ms Kosinska concluded: "Silos are the enemy. We don't live in silos, so why do we work in them?"

» *Jeremy Haigh, European Federation of Pharmaceutical Industries and Associations (EFPIA)*

Dr. Jeremy Haigh delivered a short sharp shock from an industry perspective. He reiterated the comments from Michel Goldman, saying "Productivity is declining. We need a revolution in drug discovery and development."

"We have to do something that makes Europe an attractive proposition again. It's becoming too fragmented and difficult to work in. Healthcare is global, so it's not realistic just to solve Europe's health problems in Europe. We must address global problems from *Europe* and do so better than our competitors," said Haigh. "We need to make the environment competitive to attract and retain talent and to increase investment again. Companies with constrained budgets

will increasingly go where they can to do things more quickly, more cheaply, or gain some other significant advantage."

He said that any EuCHR would be an important step forward if it were sustainable, impactful, free from short-term political pressure; it had a unique, comprehensive and differentiated remit; it was driven by excellent science, not political correctness; it focused on a limited number of objectives which address global healthcare challenges; and it acted as an effective bridge between scientists, regulators, health authorities and other influential stakeholders. He warned that such a body would represent a missed opportunity if it was limited to a co-ordination role, driven only by fundamental research, and Europe-centric rather than health-centric.

GENERAL DISCUSSION

Many delegates said that the day had been extremely informative and useful. Prof. Ulf Smith, President of the BioMed Alliance, made clear that any EuCHR would not administer the money itself, it would simply set priorities. He added that the details of how such a body would work were yet to be decided.

Dr. Draghia-Akli made clear that the strategy and any structure that might be created needs to involve Member States and other stakeholders, not just the Commission. This would facilitate formation of international consortia, research agendas, and the pathways to data sharing, methodology, and sample sharing. Funding for individual projects would still come from different sources such as the EC or member states.

Dr. Roberto Bertollini, Chief Scientist for World Health Organisation (WHO) Europe and WHO Representative to the EU, said he was pleased to hear presentations during the day stressing the importance of prevention-related and translational research in public health policy. He said that Europe had a very unique contribution to make to innovation, and a social perspective that is not so common in the United States.

Regarding convincing politicians of the need to act, Bertollini said that we often do not have the data to help politicians to make these difficult choices, such as data on the economic implications of different health policy options. Research is needed to fill this gap. He endorsed the presentations that highlighted that creating a European strategy was in fact supporting a global agenda from a European perspective: for example, obesity is a problem faced by all EU Member States, yet it is hitting countries worldwide, including developing nations.

In developing a EuCHR, Bertollini suggested stakeholders could learn valuable lessons from WHO's European Advisory Committee on Health Research, that replicates in Europe what WHO in Geneva is doing at a global level. He also highlighted the potential difficulties of intersectorality, stating that projects he had been involved in, had found this difficult and wondering what mechanisms would exist within Horizon 2020 to make this easier.

Finally, while supporting the concept of personalised medicine, Bertollini said it would be vital for any strategy to also envisage potential problems in this area, including inequalities in access and that fact that rates of major diseases can vary sometimes 10-fold between and even within

member states. Ulf Smith thanked Dr. Bertollini for his input and affirmed that WHO would be a major partner going forward in the attempt to develop ad EuCHR.

Prof. Karin Sipido, Vice-President of the Biomed Alliance, said it was important to define the mandate of a council, and that such a council would need to be very clear on the criteria for determining priorities and strategic importance. The ongoing consultation of the BioMed Alliance and stakeholders should allow further developing of these concepts.

Prof. Kurt Deketelaere, Secretary-General of the League of European Research Universities (LERU), expressed his interest in the project. He wondered if there is a link/consult with the EIP Healthy Ageing. He indicated the confusion created by the comparison with the ERC : the ERC is a funder (not an advisory body as in casu) of bottom up research, not of top down research. He also asked who would control the money flows, since he would prefer to keep the control with the European Commission.

Prof. Jose Mariano Gago, Former Minister of Portugal in charge of Science and Technology and former (and first) President of the Initiative for Science in Europe, addressed the audience as an advisory member of the Working Group set up by the BioMed Alliance.

He emphasised how the current features of the evolution of research in the biomedical field are probably contributing to shaping the evolution of science policy at large. In particular, the growing direct involvement of stakeholders in research activities (from industry to researchers and clinicians, as well as patients themselves) appears an almost unique driving force able to mobilise most effectively a renewed constituency for science. Moreover, the biomedical field appears to generate opportunities in other fields of science by attracting their contribution to new challenges in the biomedical field itself.

Furthermore, said Gago, the biomedical research community has already shown (as in the case of the campaign leading to the establishment of the ERC, ten years ago) its capacity to harness to political potential of the field itself in its relation with society, as well as to mobilise highly respected figures, such as Nobel Prize winners. However, these capacities are still mostly untapped in Europe.

He described the potential formation of EuCHR as an important opportunity to help successfully address health as a major European societal challenge, so long as independent, authoritative, scientific advice is organised at the European level.

Gago has also commented the potential controversy between, on one hand, the idea of addressing the need of scientific steering of healthy research across all the new Horizon 2020 Programme, and, on the other hand, the ambition of coordination of biomedical research across Europe, with direct involvement of national authorities. He thinks that both objectives must be pursued hand-in-hand. However, it seems clear that the agenda is now set by the timetable of the discussion and the decision-making process of the next Framework Programme on Research in Innovation (i.e. Horizon 2020). Making possible such a mechanism of science-driven high-level steering of all health research across Horizon 2020, as has been proposed, should be seen as a major contribution to trigger collaboration across Europe, at programme level, with member states, industry and researchers.

"The opportunity [to create a EuCHR] responds clearly today to a need in European science policy and is fantastic for researchers," concluded Prof Gago.

Following this and several comments from the audience, Dr Draghia-Akli said that we had heard throughout the day a very strong case about the 'why' we need a strategic consensus involving biomedical researchers, but not enough about the 'how' to proceed.

Following this, Professor Højgaard added that European Medical Research Councils support this action for creation of a EuCHR, and that their members are people well informed about problems and challenges faced by biomedical research in Europe. "We have also approached health technology assessment bodies and they also endorse the idea," she said.

Professor Celis said the formation of the EuCHR would be a complex process and that there was only a narrow window in which to take action.

General interest was expressed by the scientific representatives that were present for strategic action in the form of an EuCHR. Prof. Smith closed by thanking the European Commission for jointly organising this high-level meeting and praising all participants for the constructive contributions. He concluded that the BioMed Alliance will continue in its efforts to ensure concerted and strategic action is taken on the many challenges ahead, and will engage with all the relevant stakeholders in this process.