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BioVision 2011 editorial

Ever since its creation in 1999, BioVision has been an international forum for dialogue and debate on the key scientific, economic and societal challenges in life sciences. In 2011, leading international decision-makers and experts in life sciences will again meet to review the latest scientific advances in health, nutrition and the environment and to assess the impact of these scientific and industrial innovations on society.

For this year's event, an International Scientific Advisory Board has been set up in collaboration with the French Academy of Sciences and under the chairmanship of Professor François Gros (the Academy's Honorary Perpetual Secretary). By selecting the program's themes and suggesting speakers, the Board has helped to refocus BioVision 2011's debates on strong scientific themes. The "Scientific Advances" conference track illustrates this focus.

With a view to opening up BioVision to the business world, this year's event offers a new "Business in Life Sciences" conference track, subtitled "The end of the traditional life science industry model: what's next?". 28 international decision-makers will debate the ongoing changes in the life science industry and review its perspectives.

Another new feature for 2011 is the networking software tool that will be made available to registered attendees (2,000 are expected) interested in organizing meetings with other participants. This is a great opportunity for attendees to make the most of their attendance at BioVision.

About fifteen satellite partner events will add to BioVision's diversity in terms of both themes and speakers.

Lastly, the BioVision Forum will continue to take account of younger generations. In 2011, we are organizing the BioVision.Nxt program in which around a hundred PhD students and postdocs (primarily from emerging countries) are invited to attend BioVision on the basis of their early academic and/or business achievements. In conjunction with TWAS (the academy of sciences for the developing world), we will grant BioVision Lilly Awards to four outstanding young scientists living and working in a developing country and whose research on infectious disease is likely to have a positive impact in the developing world.

Christian Grenier
CEO - BioVision

BioVision 2011, the 7th edition of the World Life Sciences Forum

BioVision, the World Life Sciences Forum, is the international platform for dialogue, debate, concrete recommendations and proposals for actions concerning major issues in Life Sciences.

BioVision was set up in 1999 on the initiative of Raymond Barre (a former French Prime Minister and Vice Chairman of the European Commission) and François Gros (Permanent Secretary of the French Academy of Sciences). BioVision receives support from major international organizations, the European Commission, local councils (Lyon City Council, The Lyon Metropolitan Area Council, the Rhône County Council and the Rhône-Alpes Regional Council) and associations, NGOs and companies concerned by issues in life science.

BioVision distinguishes itself by its high-level speakers: 33 Nobel prizes, 1 President of the Republic, 47 CEO, 18 leaders of international organizations, 9 European Commissioners, 24 directors of NGO and associations of patients, managers of research institutes, participated. This forum has, since its creation, a strong international dimension, with about 60 countries represented in 2009.

BioVision has for mission to pursue and to reach four very different objectives:

- **Explain the last advances** in life sciences and **discuss their societal implications** and their ethical dimension between the various present actors.
- **Gather international decision-makers** of diverse horizons to express and confront their points of view on essential challenges to come in life sciences.
- **Build tomorrow's community of life sciences** by gathering young researchers from the whole world within the program BioVision.Nxt.
- **Favor the connection between the various concerned communities** by offering opportunities to meet during the forum and beyond.

BioVision 2011 : the key figures

- 3 days, from March 27-29, at the *Palais des Congrès* convention center in Lyon
- 180 internationally renowned speakers ([list of confirmed speakers](#))
- 2,000 attendees
- 3 conference tracks
- 60 sessions and round tables

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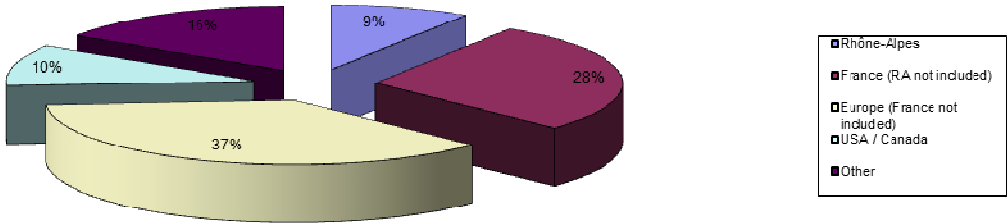
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BioVision 2011: three days, three conference tracks, and side events presented by 160 speakers

➤ **BioVision hosts 160 speakers from various origin and background :**

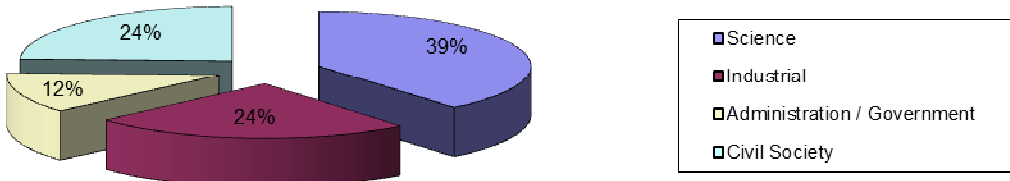
The international dimension of BioVision is confirmed in 2011, especially in terms of speakers. 10 % of the confirmed speakers will come from North America, 37 % from Europe (France excluded).

Origin of the speakers



By bringing together scientific, social, political and industrial players, BioVision provides a multifaceted perspective of the life sciences issues

Profile of the speakers



➤ Debates organized around 3 conference tracks

2 000 attendees and 180 speakers will meet to discuss and debate the major scientific, economic and societal issues in life within these three tracks:

- The **"Decision-makers' Perspectives" track** will include **6 plenary sessions**, on the following themes: "Health, a right for all human beings, at any price?", "Drugs and developing countries", "Synthetic biology: reconstructing life?", "How will we be fed in 2020?", "Would Pasteur and Fleming have survived the precautionary principle?" and "Preparing for Healthcare 3.0: thinking outside of the box"
Within the framework of this track, a panel of international decision-makers will focus on major scientific/societal issues in healthcare, the environment and nutrition.
- The **"Scientific Advances" will gather speakers** around healthcare, environment and nutrition issues. Including **12 themes, 36 talks of 20 minutes each and 12 round-tables**, this track will propose sessions on the following issues : "From systems biology to personalized medicine", "How to deal with emerging and re-emerging infectious diseases?", "Turn Green into Gold", "Health, nutrition and bacteria"...
- **"Business in life sciences"**, this track is new for 2011. Twenty-eight industry experts will address key issues around this theme: **"The end of the traditional life science industry model: what's next?"**
Some examples of the issues that will be discussed within this track: "How to address the growing challenge of chronic diseases in emerging countries?", "How can technology innovation transform healthcare delivery?", "New geography of R & D innovation in infectious and neglected diseases", "How to solve R & D's challenge with Open collaborative innovation?"

➤ A programme dedicated to PhD students: BioVision.Nxt

Biovision.Nxt is a Fellowship programme allowing more than 100 PhD students to participate in BioVision, the World Life sciences Forum, free of charge. This program exists since 2001, and represents (before the 2011 edition) an important network of 380 persons today. BioVision.Nxt selects the best PhD students in life sciences and related fields (Health, Environment and Nutrition) coming from all around the world.

Biovision.Nxt fosters the creation of links between the speakers of BioVision, who are at the heart of major scientific advances, and researchers' new generation. Biovision.Nxt is a unique opportunity for young researchers to make their voice heard in a high-level international forum.

In 2011, the BioVision.Nxt programme selected 114 promising researchers, 45% from Europe and North America, and 55% from emerging countries, from the most renowned universities (NIH, MIT for the USA, University of Sains in Malaysia, China Normal University in China, Imperial College of London in England, Indian Institute of Technology in India...).

➤ Satellite events

"**BioVision off**" are events taking place on site, but they are not part of the official programme. These events include workshops, board meetings, keynote lectures, etc. organized by BioVision's partners ([see the "BioVision off" programme](#)).

The BioVision Lilly Award, in conjunction with TWAS, the academy of sciences for the developing world, will honour outstanding scientific achievements made by individual young scientists from developing countries. The prize will reward four young scientists living and working in a developing country, who have a track record of excellent research in infectious diseases, with an emphasis on tuberculosis preferred, and promise to have a positive impact in the developing world. The winners have been selected and invited to attend BioVision 2011. The two first winners will receive funding to continue their research. The awards will be presented at a ceremony during BioVision 2011, on Monday 28th of March.

BioVision will dedicate a space of 380 sqm to life sciences in Rhône-Alpes, to emphasize the dynamism of the region in this field, whether it is in research and in clinical developments, in business network, in private investors, in large-scale projects, in partners networks and in public financing. This space will be organized in partnership with Lyonbiopôle, *le Grand Lyon*, the Chamber of commerce and industry of Lyon and the ADERLY (Agency for the economical development of the Lyon region).

The programme and the list of confirmed speakers are available in appendix or on [BioVision](#) website.

Press conferences programme

This program lists the events dedicated to journalists during BioVision, in addition to the Official programme and to the satellite events.

Saturday 26 March

6:00 pm – 8:00 pm : "Recherche avancée en médecine : quelles limites ?" – In French

Conference opened to every public, co-organised with the University of Lyon and the Rhône CCSTI.
Location: amphithéâtre Descartes, ENS Lyon (15 parvis René Descartes, Lyon 7^e – Subway : B line to Debourg)

Speakers: Jean-Claude Ameisen, Miroslav Radman, François Berger
Moderator: Michel Alberganti (journalist, France Culture)

Monday 28 March

10:30 am – 11:45 am: Presentation of the infectiology project IRT "Lyon Biotech" – In French

Grand Lyon and Lyon Biopôle
Press conference room

Gérard Collomb, Senator-mayor of Lyon, president of Greater Lyon and Philippe Archinard, president of Lyonbiopôle, CEO of Transgene will present this project, a unique private-public partnership founded on an integrated and interdisciplinary approach of R & D, with the participation of the industrial founders, Alain Mérieux (President, InstitutMérieux), Christopher A. Viehbacher (CEO, Sanofi-aventis) and Frédéric René (VP R & D dairy products, Danone Research).

4:00 pm – 4:30 pm: "Nutrition Summit: signing of a memorandum" : press info

BioVision Nutrition Summit (3:30 pm – 4:30 pm)
Room Rhône 1

The BioVision 2011 Nutrition Summit exclusively unites representatives of patient organizations, health professionals and nutrition experts. This meeting provides a unique platform, where the selected committee members jointly address and discuss specific nutrition needs and requirements of patients – building on latest progress in science. The resulting statements and recommendations will be leveraging support to health ministries and related bodies worldwide, to engage in and facilitate science-based progress in the field of nutrition and health for patients.

Participating organisations: Unilever, DSM, International Osteoporosis Foundation, International Genetic Alliance, EuropaBio, McKinsey & Company, InstitutMérieux, Université de Lausanne....

.../...

.../...

Summit programme (3:30 – 4:00)

Welcome address to invited guests

YsbrandPoortman Secretary General IGA International Genetic Alliance
Manfred Eggersdorfer Senior Vice President Nutrition Science & Advocacy, DSM

Address to public and statements by representatives on the role of nutrition for patients and risk groups

Alastair Kent President EGAN European Genetic Alliances Network
René Rizzoli Member of the IOF Scientific Advisory Board
Stephan Tanda DSM Managing Board Member
Herbert Smorenburg Nutrition Director Europe, Unilever
Félix Sancho Nutrition, Scientific & Regulatory Affairs Director, Kraft Foods
Regina Moench-Pfanner Senior Director Nutrition Programs, GAIN

4:30 pm – 5:30 pm: "Le vivant synthétique, cela nous concerne" – In French

Vivagora

Press conference room

With a world market of \$4.5 Billion by 2015, this bioengineering of new biological structures or organisms raises many scientific, social, ethical, environmental and economic questions. This press conference will meet this new scientific and technique domain issues.

Speakers :

Dorothee Benoit Browaeys, general director, VivAgora
Bernadette Bensaude Vincent, philosopher et chemistryhistorian (Université Paris Sorbonne), presidente, VivAgora.

4:45 pm – 6:00 pm: "Preparing for Life Initiative" – Workshop and press conference

International Genetic Alliance of Parent and Patient Organizations (IGA)

Room Saint Clair 1

"Preparing for Life" is a patient driven initiative originating from the BioVision 2005 plenary session "The beginning of Life".

Its first objective is to contribute to the reduction of maternal and childhood mortality and morbidity, thereby supporting the Millennium Development Goals of the United Nations.

Every day 30.000 children under age of 5 die and annually 7,9 million children are born with a serious disorder and all this mainly from preventable causes.

"Preparing for Life" is a joint venture of groups of patients (IGA), science (academia) and service (rotary) and open to international organisations, governmental bodies, non-governmental organisations, academics, industry and individuals.

"Preparing for Life" will promote international and regional awareness of and the development of programmes for preconception care, particularly in middle and low-income countries and so contribute to safe motherhood and the birth of healthy infants with the expectation of healthy longevity.

Preparing for Life will have its first international presentation at the occasion of BioVision2011

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9:30 pm: 2011 BioVision - Lilly award ceremony

Award presentation by Bart Peterson Senior VP, Corporate Affairs and Communication, Eli Lilly and Company and Professor Ismail Serageldin, director, Bibliotheca Alexandria, Professor, Collège de France, during the Innovation dinner.

Musée gallo-romain (17 rue Cléberg – 69005 Lyon)

Invitation-only: Registration before 25 March: aurelie.bellemin@biovision.org

Tuesday 29 March

10:30 am – 11:30 am: "Institut Pasteur Shanghai announces the creation of its global biotech accelerator Advance BioChina"

Institut Pasteur Shanghai

Press conference room

Speakers:

Pr Ralf Altmeyer, Director General, Institut Pasteur Shanghai, founder & CEO, Advance BioChina

M. Irene Robin, CFO, Institut Pasteur Shanghai

M. Jean Derégnaucourt, VP, Industry Relations and Research applications, Institut Pasteur Paris

12:30 am– 2:00 pm: "Biotechs' Panorama" presentation – *In French*

France Biotech

Lyon Biopôle booth

Speaker: André Choulika, president, France Biotech

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Summary of the 12 themes

Theme 1: Brain, emotions and social behaviors

Sunday 27 March 2011 – 15:45 to 18:15

Our mental life is thought to result from a unique way of perceiving and integrating different types of sensory information into a single framework, to form an internal representation leading to a motor command. How the perceptual world is built and represented in primates, including human beings, depends on genetic programs and environmental factors.

This symposium will focus on the quest to understand how factors generated by living in complexly bonded social groups, affect various behavioral outcomes (learning, memory, mental illness, normal development or developmental psychopathology). Human beings are different from other animals in that much of our culturally cooperative behavior is learned, and not innate. Social interactions such as vertical transmission (*i.e.*, parent-infant bonding), altruistic behaviors or emotional contagion, will be debated. Can we use recent biological knowledge to improve social abilities to cure mental disorders? Can it be used to enhance social ability even in otherwise healthy people? How do social cognitive abilities develop in relation to brain maturation? These are some of the questions that the symposium will tackle.

Needless to say that we urgently need to gather information across different fields, including Life Sciences, Human Sciences and Social Sciences to anticipate the future of social cognitive neuroscience, and beyond, the evolution of our sometime endangered human societies.

Theme 2: Can we cure ageing?

Sunday 27 March 2011 – 15:45 to 18:15

For the past 200 years, life expectancy in the developed world has been increasing at the incredible rate of 5 hours per day. In recent decades, demographic trends demonstrate a dramatic reduction in mortality in older people. Better nutrition, housing, medical care and working conditions are all likely to have resulted in less accumulation of cellular damage. Ageing is a highly complex process; it involves interactions between numerous biochemical and cellular mechanisms that affect many tissues in an organism. Ageing results from the accumulation during life of damage in cells and tissues. Multiple mechanisms contribute to ageing.

In a first step the session will explore some advanced results describing how the influence of factors like genes and environment strongly affect the development of ageing at the cellular and at an organism level. In a second step, during the round table, positive and negative aspects of human life expectancy for family, societies and governments will be discussed.

Theme 3: From systems biology to personalized medicine

Monday 28 March 2011 – 09:00 to 11:45

During the past twenty years, major advances have been made in the study of the genomes of a variety of microbial, plant and animal species using the tools provided by engineering and computer science. This has provided a knowledge base and a technological platform to gain a deeper and more global understanding of human physiology and disease in the context of the human genome and its inherited variations. We are now witnessing a rapid transition from the well-established reactive medicine, in which drugs of general use are developed and used to treat patients once the disease symptoms have developed, to a more personalized medicine which intends to predict and prevent the occurrence of disease before its onset, with the active participation of the individual patients and their families. This predictive, preventive, personalized and participatory (4P) medicine is taking advantage of new approaches in the study of biological systems that combine collection of global data sets with mathematical and computation modelling. The success of these systems approaches to biological and medical questions depends on the availability of clinical samples of high quality, on the precision of the measurements collected, and on the performance of the information and communication infrastructure to analyze and model the results obtained. This session will highlight the concepts, methods and strategies supporting the development and application of systems approaches, and discuss the technical and ethical hurdles that remain for their extension throughout biology and medicine in both developed and developing countries, based on strategic international public-private partnerships.

Theme 4: Comprehending human brain function in the future

Monday 28 March 2011 – 14:30 to 17:15

This session is designed to examine the present and future implications of our new ability to examine human cognition, emotion and action by scanning the brain. Brain scanning allied with computer analysis means that it is possible to identify specialised brain areas and more importantly still how such areas interact in networks to generate feelings, hopes and actions.

New, more sophisticated and sensitive scanners open the door to making reliable observations in the brains of individuals.

The exponential increase in computing power that is a reality of our age now makes it possible to envisage industrial scale scanning for pre-clinical screening of brain diseases. Some of these, such as the brain degeneration in Alzheimer's disease, can be picked up early, before symptoms arise.

But the top super-computers now have the power to go beyond this phase. It is possible to envisage building a "brain" in a computer so that it can be challenged and its responses recorded to predict what might happen in human brains in the same situation. The mass of information collected by scientists daily about the structure and function of brains needs to be marshalled into accessible databases to feed the construction of life-like models of the brain on computer chips.

Such artificial but realistic brains might represent ideal models for drug development or for predicting the effects of surgery in individuals in addition to allowing safe experimentation designed to predict how the brain works in different situations.

The speakers will introduce some of these present and futuristic concepts

The Round table will bring together leaders in the field and confront them with the implications of such advances for individuals and society, inviting discussion of political, libertarian and social consequences. The present applications of concepts and methods linking brain scanning and computer technology and scope for further advances will be discussed by those, like the most advanced computer engineers, surgeons and psychiatrists, who are thinking about where things will go from here

Theme 5: Cancer research for personalized patient treatment

Tuesday 29 March 2011 – 09:00 to 11:45

Cancer is the big killer in Europe. The incidence and prevalence of malignant diseases are increasing for several cancer types, in spite of screening and preventive measures. The aging population in Europe is part of the pathogenetic explanation.

Luckily the last decades have fostered great achievements in cancer diagnosis and therapy based on pathophysiology and basic research understanding of the highly complex nature of the disease. In children, more than 80% affected with cancer can be cured and apart from therapy, the grand challenge is reduction of the short and long-term side-effect.

In adults the survival rate is approximately 55% for all cancer types. The grand challenges are both in diagnosis and identification of the correct tailor-made individual patient treatment with more and more advanced diagnostic imaging and molecular biology lab results. Reduction of short term and long term side-effects are possible using the more individual personalised concept.

The paradigm shift of modern medicine combining the genome investigations, the “omics” and images and clinical data into an individual tailor-made diagnosis and treatment is a grand challenge. The available methods are abundant and one of the crucial challenges is to develop a new methodology addressing the complex needs of research protocols for personalized medicine.

The round table discussion will focus on the patient’s perspective, where the critical question is to translate the research progress into patient treatment in the most rational way. We can imagine a doctor replying to a patient asking for treatment: “If this medication does not help, then come back and we will try something else.” Thereafter the patient replies: “Then I would like *the something else* first.” Personalized medicine is the remedy for identification of *the something else* first: the most adapted treatment to each individual patient.

We need new concepts of research and new concepts for collaboration between patient, society and researchers – and it will benefit patient and society, and be cost saving in the long run.

Theme 6: How to deal with emerging and re-emerging infectious diseases »

Tuesday 29 March 2011 – 09:00 to 11:45

Each year, infections account for 26% of the world mortality. Infectious diseases are essentially poverty related with about 90 % of the deaths affecting children in developing countries. Major killers are tuberculosis, HIV, malaria, enteric and respiratory infections and the increasing number of « neglected » diseases that include various virus and parasitic etiologies such as hemorrhagic fevers, leishmaniosis, schistosomiosis, filariosis...often vehiculated by insects and arthropods. In addition, 16% of the cancers are of infectious origins. Mortality is only partially reflecting the impact of infectious diseases which have consequences not only on global health but also on socio-economic development. Importantly, resurgence of infections long considered as disappeared and emergencies regularly occur. Between 1940 and 2004, 335 emerging infectious diseases were detected which were mostly zoonosis transmitted by the wild fauna.

During the session, the talks will cover the example of flu which illustrates what is called the crossing of species barriers with a disease affecting animals and adapting to humans. The new concept that some humans are more susceptible than others due to genetic predisposition will be presented. Finally, the dramatic problem of antibiotic resistance, the lack of new antibiotics and the methods used to develop antibiotics will be discussed.

During the round table, a survey of the parameters which may influence the occurrence of new outbreaks and epidemics will be discussed. As the problems must be treated at the level of the planet,

some of the major issues discussed will be: Are all countries sufficiently well organized? Should coordination between countries be improved? How? At which level should efforts be primarily implemented?

Theme 7: Cell therapy: scientific, therapeutic and ethical challenges

Tuesday 29 March 2011 – 09:00 to 11:45

The biology of human gene therapy remains complex and many techniques need further development. Many diseases and their strict genetic link need to be understood more fully before gene therapy can be used appropriately. The technology is still in its infancy, even though it has already been used with some success. Scientific breakthroughs continue to move gene therapy toward mainstream medicine. However, several challenges must be met to fulfil these expectations, starting from the development of more efficient, safe and versatile gene transfer tools.

Stem cell research shows promise for the treatment and/or cure of many devastating diseases for which we do not have effective treatments at the present time. Our ability to manipulate stem cells for therapeutic purposes is directly dependent upon understanding the biology of this fascinating cell type. However, stem cell biology is still in its immature stage and thus has an enormous potential to grow.

Stem cell research has been associated with gene therapy since its establishment. It continues to provide a complementary aspect to gene therapy because the selfrenewing and differentiative properties of stem cells make them the ideal vehicle for therapeutic transgenes in their progeny. These are likely the common scenarios for future clinical practice in this area.

These emerging fields are facing many critical challenges either in their biological issues (how to integrate the right gene at a right place in the genome without inducing multifactorial disorders? how are embryonic stem cells different from adult stem cells?) or in ethical issues.

The round table will confront the position of leaders from different background in the fields by inviting them to discuss political or social consequences.

Theme 8: Environment and CO2

Sunday 27 March 2011 – 15:45 to 18:15

The continuing increases in CO₂ in the atmosphere made front-page news only when the climate change debate began. Whether anthropogenic CO₂ is to blame or not, what both sides of the debate agree on is that we need to find ways to reduce atmospheric CO₂ levels because of the collateral effect it has on acidifying the oceans. A wide range of approaches are currently being considered to tap CO₂ emissions, and above all to capture and store CO₂ in a harmless form. The major approaches being considered are based on either exploiting the biology of living organisms or are based on geochemical solutions.

The objective of the round table will be to compare and contrast the two options, and to debate their relative merits in light of future priorities for the planet and humanity.

Theme 9: Biofuels from biomass
Monday 28 March 2011 – 9:00 to 11:45

The search of alternative renewable energy had become crucial due to the expected exhaustion of fossil energy.

Biomass conversion was long ago identified as a solution to face these issues, but first generation biofuels have been criticized concerning their real environmental assessment.

New solutions are being developed in laboratories all over the world, with more advanced technologies using the whole plant (second generation biofuels) or with living organisms, not much used or not used for this purpose yet (third generation biofuels): this is the case with micro algae and bacteria which could be modified and improved in order to become very efficient sources of energy.

A wider utilization of agricultural biomass is also thought as a hopeful issue which may also constitute an alternative to fossil energies.

This thematic will try to outline the research in progress and to identify the most relevant to respond to the current challenges.

Theme 10: Turn green into gold
Monday 28 March 2011 – 14:30 to 17:15

Plant biomass represents a rich and varied resource for the production of power, heat, transport fuels, chemicals and other bio-based materials. The widespread uptake of consumer products derived from sustainable plant sources offers the potential of stimulating new economic development, assisting in the preservation of the earth's finite resources and helping deliver international and national environmental policies for greenhouse gas reductions

In the future, these plant derived products will be produced by large, integrated manufacturing complexes known as biorefineries. Biorefineries will process large volumes of biomass feedstock to produce biofuels and diverse value added chemicals. Future biorefineries may play a major role in producing chemicals and materials that are traditionally produced from petroleum.

This session will present example of biorefineries and will be focused on the development of new biotechnologies to optimize ligno-cellulosic biomass exploitation.

Theme 11: Health, nutrition and bacteria
Monday 28 March 2011 – 9:00 to 11:45

This session aims at sensitizing the audience to the emerging field of the symbiotic relationship between man and its commensal flora also called the microbiota.

This mass of microorganisms that is dominant in the gut represents 10 times the number of cells forming our body and 150 times the number of genes forming our genome. It has the global activity of an extra-organ like the liver. One is just starting to realize that this cohabitation necessitates very complex mechanisms of adaptation whose dysfunction may lead to a large array of diseases, from inflammatory bowel diseases to metabolic pathologies such as insulin resistance, obesity and diabetes.

Panellists will introduce the topic and will discuss how this microbiota could be manipulated for health improvement.

Theme 12: More food and better food
Monday 28 March 2011 – 14:30 to 17:15

With an estimated global population of around 9 billion in 2050, it's clear that we have to produce more food in the coming decades. However, there are limited opportunities to expand the area of agricultural land without huge detrimental impact on the natural environment.

To produce food in a better way means identifying and developing new modes of agriculture, using new technologies crossed with traditional approaches, particularly in developing countries where sophisticated systems of production are often not affordable.

In accessing better food people must be able to benefit from an affordable well balanced diet, avoiding excess fat and sugar. Their diet should contain all the micronutrients, amino acids, vitamins and other components which are needed for human health and well-being, and which are so important for children's growth and development.

With this theme, we will address the challenge of increasing crop yields in a more sustainable way, exploring some research programs focused on reduction of chemical inputs used in modern agriculture, as well as the development of bio-fortified crops.

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Appendix

CONFIRMED SPEAKERS (March 22nd)

- **Sonia Abdelhak**, Head of Research Unit on Orphan Genetic Diseases, Institut Pasteur de Tunis, Tunisia
- **Laurent Abel**, Director of Research at Inserm/University Paris Descartes; Head of the Laboratory of Human Genetics of Infectious Diseases, France
- **Jeffrey Almond**, Vice President Discovery Research and External R&D, Sanofi Pasteur, France
- **Ralf Altmeyer**, Director General, Institut Pasteur Shanghai; CEO, Founder, Advance BioChina, People's Republic of China
- **Jean-Claude Ameisen**, Doctor and Professor of immunology, President of Ethics Committee, Inserm; member, the national consultative ethics committee, France
- **Olivier Appert**, President, Conseil français de l'énergie; Chairman and CEO, IFP Energies Nouvelles; Chairman, ANCRE (French national alliance for energy research coordination) France
- **Philippe Archinard**, President, Lyonbiopôle; Chairman and CEO, Transgene, France
- **Charles Auffray**, Research director, CNRS, France
- **Françoise Barré-Sinoussi**, Nobel Prize in Medicine 2008; Professor, Head of Unit of regulation of retroviral infections, Institut Pasteur/Inserm, France
- **Christian Béchon**, CEO, LFB S.A. (Laboratoire français du fractionnement et des biotechnologies), France
- **John Beard**, Director, Department of Ageing and Life Course, WHO
- **Alim-Louis Benabid**, Scientific Advisor, CEA / Minatec / Leti / Clinatex, France
- **Bernadette Bensaude-Vincent**, President, Vivagora; Professor, University Paris 1 Panthéon-Sorbonne, France
- **Nora Berra**, Secretary of State for Health, Minister of Labour, Employment and Health, France
- **Bernard Bigot**, Chairman, Commissariat à l'énergie atomique (CEA), France
- **Jean-Yves Blay**, President, European Organisation for Research and Treatment of Cancer, Leon Berard Center, Lyon, France
- **Jean Bousquet**, Professor of Pulmonary Medicine, University Hospital of Montpellier, France
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- **Pascale Briand**, General Director for Food, French Minister of Food, Agriculture and Fisheries
- **Herb Brody**, Editor, Nature Outlooks, Nature magazine, UK
- **Anthony J. Brookes**, Professor in Genomics & Bioinformatics, University of Leicester, UK
- **Rémy Burcelin**, Professor, Research director, U858 - Inserm, France
- **Anne Cambon-Thomsen**, Head of research, "Genomics and Public Health", UMR Inserm / University Paul Sabatier Toulouse 3, France
- **Philip Campbell**, Editor in Chief, Nature, UK

- **Luis Cantarell**, President & CEO Nestlé Health Science S.A., Switzerland
- **Maria Livanos Cattai**, Member of the Board, Petroplus Holding AG, Switzerland
- **Olivier Charmeil**, President & CEO, Sanofi Pasteur, France
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- **Zhu Chen**, Minister, Ministry of Health, People's Republic of China
- **André Choulika**, President, France Biotech; CEO, Collectis, France
- **Kathrin Cohen Kadosh**, Doctor, Institute of Cognitive Neuroscience, University College London, UK
- **Bertrand Coiffier**, Head, Department of Hematology, Hospices Civils de Lyon, France
- **José Angel Cordoba Villalobos**, Minister, Minister of Health, Mexico
- **Ricardo Correa Rotter**, Head Department of Nephrology and Mineral Metabolism, National Institute for Medical Science and Nutrition Salvador Zubiran, Mexico
- **António Fernando Correia de Campos**, Vice-chairman, Science and Technology Options Assessment (STOA); member, European Parliament
- **Pascale Cossart**, Professor, Head of Bacteria-Cell Interactions Unit, Director of Inserm Unit, U604 and of INRA Unit, USC2020, Institut Pasteur, France
- **Christophe Dardel**, President, DSM Biomedical, Royal DSM N.V., The Netherlands
- **Julian Davies**, Professor of Microbiology and Immunology, Department of Microbiology and Immunology Life Science Institute, University of British Columbia, Canada
- **Stanislas Dehaene**, Director, Cognitive Neuroimaging Unit, Inserm-CEA, France
- **Jacques Delort**, Vice President Prospective Strategic Initiatives, Sanofi-aventis, France
- **Don Deyo**, Vice President, Product Development & Technology, Medtronic Neuromodulation, Switzerland
- **Michel du Peloux**, Senior Vice President, Mérieux NutriSciences; Head, BioFortis business unit, France
- **Esther Duflo**, Professor, Social economics, development economics, Massachusetts Institute of Technology (MIT), USA
- **Martin Enserink**, European correspondent, Science Magazine
- **Charlotte Ersbøll**, Corporate Vice President, Global Stakeholder Engagement, Novo Nordisk, Denmark
- **Alain Fischer**, Professor, Head of Inserm research unit 768, University Paris Descartes, France
- **Richard Frackowiak**, Professor of Neurology, Head of Clinical neurosciences department CHU Université de Lausanne, Switzerland
- **Alan Gara**, Exascale and BlueGeneExascale Chief architect, IBM, USA
- **James A. Geraghty**, Senior Vice-President, Genzyme Corporation, USA
- **Catherine Geslain-Lanéelle**, Executive Director, European Food Safety Authority
- **Michel Goldman**, Executive Director, Innovative Medicines Initiative, Belgium
- **Jonathan Gressel**, chief scientific Officer and co-founder, TransAlgae, Professor Emeritus, Weizmann Institute of Science, Israel
- **Marion Guillou**, President, Institut National de la Recherche Agronomique (INRA), France

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- **Chris Hentschel**, Founding former CEO and Board member, Medicines for Malaria Venture, Switzerland and of the MRC Collaborative Center, UK
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- **Alastair Kent**, Vice President, International Genetic Alliance, UK
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- **Rebecca Müller**, Secretary General, Global Alliance of Mental Illness Advocacy Networks (GAMIAN), President, Ups & Downs, Switzerland
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- **Robert Sebbag**, Vice president, Access to Medicines, Sanofi-aventis, France
- **Michel Serres**, Professor, Stanford University, Philosopher, France
- **Lisbeth Shepherd**, Founder and Executive Director, Green City Force, USA
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- **John E. Tedstrom**, President and CEO, Global Business Coalition on HIV/AIDS, Tuberculosis and Malaria, USA
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- **Alex van Belkum**, Global Director, Microbiology Research, bioMérieux, France
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- **Tido von Schoen-Angerer**, Director, Campaign for Access to Essential Medicines, Médecins Sans Frontières (MSF)
- **Walter Wahli**, Professor of Biology, Center for Integrative Genomics, University of Lausanne, Switzerland
- **Keith Waldron**, Professor, Head, Sustainability of the Food Chain Exploitation Platform, Institute of Food Research, UK
- **Mark Walport**, Director, Wellcome Trust, UK
- **Robert C. Wells**, Head, Biotechnology Unit, Directorate for Science, Technology and Industry, OECD
- **Ada Yonath**, Nobel Prize in Chemistry 2009, Professor, Weizmann Institute, Israel
- **Elias Zerhouni**, President Global R & D, Sanofi-aventis; Professor, Collège de France, France