

Biotechnology Update Internal Co-ordination Group for Biotechnology (ICGB)

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This newsletter provides up-to-date information on OECD activities related to biotechnology. It is mainly intended for delegates to OECD meetings who are already familiar with certain aspects of OECD's work. We hope that it is also informative for the wider biotech community. This edition also raises, for the first time, the topic of nanotechnologies. The contents of this newsletter have been provided by those members of the OECD secretariat who are responsible for the various activities. Members of the secretariat can be contacted via the e-mail address: icgb@oecd.org . Alternatively, individuals can be contacted via e-mail using the form firstname.lastname@oecd.org .

This edition is now available on the Internet as a "live-link" version.

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ABOUT OECD'S INTERNAL CO-ORDINATION GROUP FOR BIOTECHNOLOGY (ICGB)

OECD and its member countries have been addressing issues related to biotechnology since 1982.

Since that time, biotechnology has had an increasing impact on the programmes of different sectors at OECD such as: agriculture; science, technology, and industry; environment; and trade. So in 1993, the Internal Co-ordination Group on Biotechnology (ICGB) was established to facilitate co-ordination among these sectors.

Michael Osborne, the Director of OECD's Advisory Unit on Multidisciplinary Issues and the International Futures Programme, chairs the ICGB. Peter Kearns, the Head of OECD's Biosafety Programme, is the Secretary.

Contact: Peter Kearns



OECD COUNTRIES AGREE GUIDELINES ON LICENSING OF HEALTH CARE GENETICS

Biotechnology and genetics research have been the subject of extensive investment by both the public and private sectors, with the products and processes emerging from these efforts making a significant and increasing contribution to human health and health care. Moreover, biotechnological, including genetic, innovations have been the subject of intellectual property rights for decades. Over the last decade, as the number of such innovations has increased, their impact on health care has grown substantially.

Recently, some governments, patient groups and healthcare providers have become concerned about how certain genetic inventions have, in certain circumstances, been licensed and exploited, particularly for diagnostic genetic services in the human health care field.

In order to address these concerns, OECD member countries agreed to **Guidelines for the Licensing of Genetic Inventions** used in health care, which were adopted by the OECD Council as a Recommendation on 23rd February 2006.

The Guidelines offer principles and best practices for the licensing of intellectual property rights that relate to genetic inventions used for the purpose of human health care. These Guidelines are targeted at those involved with innovation and the provision of services in health, and particularly at those involved in the licensing of such inventions. Overall, the Guidelines seek to foster the objectives of stimulating genetic research and innovation while maintaining appropriate access to health products and services.

Information concerning these Guidelines may be obtained on our website.

Web site: www.oecd.org/sti/biotechnology/licensing (in English),
www.oecd.org/sti/biotechnologie/licences (in French)

Contact: Christina Sampogna



THE BIOECONOMY TO 2030: DESIGNING A POLICY AGENDA

The notion of the bioeconomy captures the potential global impact resulting from advances in the biological sciences over the past thirty years. This has fostered an explosion of innovation in sectors such as, inter alia, energy production, agriculture, regenerative medicine, nutrition, genomics, security, and industrial production that are creating new goods and services using the latent value added by biologics. These innovations provide more effective, efficient, and sustainable products for the global economy that promise to transform our economies and profoundly change the health, nutrition, land use, energy consumption and security of citizens. But this promise must be nurtured and fostered by judicious policy choices ranging from long term investment to appropriate regulatory frameworks through to consumer understanding, confidence and acceptance of the new possibilities that this pervasive and generic technology will provide.

The International Futures Programme (IFP) of the OECD specialises in analysing key long-term trends to help governments map strategy and projects. Due to the rapid increase in biological innovation, growing strategic interest in the bioeconomy in (OECD and non-OECD areas) and its potential for significant global economic, social and environmental benefits the IFP has launched a multi-year project on The Bioeconomy to 2030: Designing a Policy Agenda.

Following a November 2005 experts meeting, on March 6th the IFP brought together more than 60 representatives from governments, the private sector and research institutions to sound out interest in the project. Participants were presented project documentation and a proposal and asked to comment on whether or not such a project was timely and useful within the framework of the OECD. Discussions at the meeting centered around several often overlapping topics: bioeconomy drivers; the prospects, opportunities and challenges in biotechnology; gaps in the existing institutional, regulatory and legal framework and potential scope for new policy initiatives; project messages; and where the OECD can provide most value-added.

At the end of April, the IFP will be calling for participation in the project based on a detailed proposal incorporating comments from the meeting. Once achieving a critical mass of project participants over the summer, the Steering Group will hold their first meeting in November 2006 to review first draft documents on the analytical baseline, make decisions on final scope, and identify a first list of key drivers and issues. The Steering Group will meet three more times before the end of the project in early 2008 to focus and review work.

Through the cooperative work of the Steering Group, IFP Staff, related OECD directorates, and external experts, the project will attempt to shed light on the concept of the bioeconomy and explore ways of making the concept more robust and concrete, assess long-term prospects for the bioeconomy over the next thirty years, develop indicators and metrics to assess and monitor the bioeconomy, identify the most critical issues that may affect the longer term prospects for the sector, map complex relationships and necessary policy choices ahead, and propose measures governments could take to provide incentives for public and private actors alike.

For further details please consult the document *The Bioeconomy to 2030: Designing a Policy Agenda*

Web site: <http://www.oecd.org/dataoecd/13/58/36165231.pdf>

Contacts: Michael Osborne
Iain Gillespie
Chris Deane



PLANNED BIOENERGY WORKSHOP

In the context of the 2007-08 Programme of Work and Budget (to be approved by the Committee for Agriculture at its meeting on 18-19 May: the decisions of the Committee on further work on bioenergy and the bioeconomy will be circulated after the Committee's deliberations), the Directorate for Food, Agriculture

and Fisheries (AGR) is organising a Workshop on Bioenergy scheduled for the beginning of 2007. This Workshop, which is financially supported by the OECD Co-operative Research Programme (CRP), aims to set the scene and to define in more detail the implementation of further work on the subject of bioenergy in AGR as well as in other Directorates of the OECD, making use of the experiences gained within OECD, as well as invited external experts. The 2-3 day event will be structured into four substantial sessions bringing together the current knowledge and outstanding questions on the a) scientific achievements and future possibilities; b) environmental implications; c) economic aspects; and d) policies related to bioenergy markets. A final panel discussion will aim at outlining the specific questions to be addressed by AGR and other Directorates, with an emphasis on policy design and policy impacts. The main focus of the workshop will be on the link between bioenergy and agricultural markets, but contributions by other Directorates and the IEA are expected to enrich the discussion in the Workshop. No decision has been made yet with respect to the location and precise timing of the Workshop.

Contact: Martin von Lampe



SPECIALISATION, REGIONAL CLUSTERS AND COMPETITIVENESS REGIONAL STRATEGIES STUDY

The Specialisation and Regional Cluster project being undertaken by GOV-RCG in co-operation with the Swedish Agency for Economic and Regional Growth (NUTEK) is designed to increase understanding about how the competitive advantages of regions in different sectors and industries contribute to the overall economic performance of those regions, whether public policy should be trying to support or develop such specialisations and, if so, how. The specific aim of the Regional Strategies Study, which is one of the three main components of the project, is to compare how regions sharing similar technologies, infrastructures and market orientations are reacting to the challenges of globalisation and changes in production systems, and within this, what steps they are taking to preserve or transform their current regional economic "portfolios". This will involve addressing such issues as

- the consequences, in terms of regional development and employment creation, of the transition from production to non-production activities in the same sector (research-intensive activities, product design, network management, etc.);
- the challenge of making public investment in research productive for the regional economy by emphasising commercialisation of innovation by locally based industries;
- the implications of the changing relationship between multinationals and other firms (issues include the increasing dominance of large firms in global production systems and the "niche" for small firms in innovation and design).

The study will look at approximately 20 regions in both OECD and non-OECD countries that are specialised in sectors that have been and could continue to be the drivers of the region's growth. In order to ensure some comparability in terms of the threats and opportunities faced by the regions being assessed, the project will focus on regions that are prominent in one of four major, globalising sectors (information and communications technology, automotive, biotechnology, and non-manufacturing tradable services). The regions proposed for the biotechnology review are: Stockholm, Montreal, NW Switzerland and Shanghai. The regional strategies will be assessed by means of review missions in April-May 2006. Each "region-sector" review will be completed with a "global outlook": report, prepared by IFP, which will set the scene and show how the evolution of the sector has implications for spatial location and thus for regional economies.

Contact: Andrew Davies



HARMONISATION OF REGULATORY OVERSIGHT IN BIOTECHNOLOGY

The main focus of OECD's Working Group on Harmonisation of Regulatory Oversight in Biotechnology is on environmental risk/ safety assessment of transgenic (genetically modified) crops. The work aims to ensure that the information used in risk/ safety assessment, as well as the methods used to collect such information, is as similar as possible. This improves mutual understanding amongst countries, increases the efficiency of the risk/safety assessment process and avoids duplication of effort, while reducing barriers to trade.

The participants of the Working Group are mainly from those government ministries and agencies, which have responsibility for the environmental risk/ safety assessment of products of modern biotechnology. There are also a number of observer delegations and invited experts who participate in the work. They include: Argentina; Russia; Slovenia; the Secretariat of the Convention on Biological Diversity (SCBD); and the Business and Industry Advisory Committee to OECD (BIAC). During the last couples of years, there has been increased participation of other non-member countries including Brazil, Cameroon, Chile, China, Egypt, India and Philippines, under the auspices of OECD's Global Forum on the Knowledge-based Economy.

During 2006, the OECD organises a series of events to celebrate the 20th anniversary of the publication of the Blue Book, Recombinant DNA Safety Consideration, which was the first intergovernmental activity on the environmental safety of transgenic organisms. As the first one, a side-event of the 3rd Meeting of the Parties to the Cartagena Protocol (MOP3) was held on 13 March. It was a workshop in which the work of the OECD and its relevance to risk assessment, especially the history of the development of the conceptual framework was described, and a free discussion session chaired by delegates from non-OECD member countries was held. The following events are a special focus session of the next meeting of the Working Group in June, and one-day workshop being organised in conjunction with the 9th International Symposium on Biosafety of Genetically Modified Organisms in September.

The publication of Consensus Documents continues to be a major output of the work. Consensus Documents are intended to be a snapshot of current information for use during the regulatory assessment of products of modern biotechnology, addressing the core set of issues that member countries believe relevant to risk/ safety assessment. They are envisaged as being used by applicants for regulatory reviews of products, regulators and government for information sharing, research reference and public communication. To date, 25 Consensus Documents have been published including those for the biology of crops, trees and micro-organisms, and for selected traits that may be introduced into crop species, and 15 are in preparation. The Secretariat is currently preparing a publication which puts together already-published consensus documents. Its preliminary copy was recently distributed during MOP3.

The Working Group organised an Expert Workshop on the biology of Atlantic salmon in Trondheim, October 2005. This was a follow-up of the previous workshop held in Moscow last year. The main purpose of this workshop was to prepare a draft operational plan for a consensus document on the biology of Atlantic salmon, which is the first consensus document for animal biology. Following the endorsement of the Working Group, the steering group of this project has started drafting the consensus document.

The OECD has undertaken some other important projects in the field of risk/ safety assessment. One of them is a project to develop a document which explains the scientific basis underlying the application of molecular characterisation of genetic modification to the risk/ safety assessment. Another important initiative is a project on the parameters for environmental risk/ safety assessment. Although this project is still in the early stage, the output could be significant because it has intended to provide a comprehensive package of information elements used for environmental risk/ safety assessment. As these projects are closely related to some topics which have been discussed under the Cartagena Protocol, close links with the Secretariat of the Convention of Biological Diversity has been maintained.

In February 2006, the parental committee of the Working Group, Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology, discussed the Draft Programme of Work on Harmonisation of Regulatory Oversight in Biotechnology for 2006-2008. Although the proposed main project areas remained similar to the previous programme of work for 2003-2005, there were some significant changes of emphasis within each project area in order to respond to emerging issues. The Joint

Meeting strongly supported the activities of the Working Group, and agreed to the new programme of work. At the same time, some delegations stressed the need for flexibility in implementing the programme so that account can be taken of new and emerging issues. Other delegates emphasised the need for more work to be done in the future to develop consensus documents which address traits used in transgenic organisms. A number of delegations expressed appreciation for the participation of non-members in the activities of the Working Group and encouraged the Working Group to continue this outreach effort in the future.

Future events:

- 18th Meeting of the Working Group for the Harmonisation of Regulatory Oversight in Biotechnology, Bern, Switzerland, 7-9 June 2006.
- OECD Workshop: *Beyond the Blue Book*, Jeju Island, Korea, 29 September 2006

Recent Publications:

- 📖 *Consensus Document on the Biology of Papaya*
- 📖 *Consensus Document on the Biology of Oyster mushroom*

Upcoming Publication:

- 📖 *Safety Assessment of Transgenic Organisms: OECD Consensus Documents Volume 1 and 2*
- 📖 *Points to Consider for Consensus Document on the Biology of Cultivated Plants*
- 📖 *Consensus Document on the Biology of Capsicum annum complex*
- 📖 *Consensus Document on Information Used in the Assessment of Environmental Applications involving Acidithiobacillus*
- 📖 *Report of the OECD Expert Workshop on the Biology of Atlantic salmon (salmo salar), Moscow 29 November-1 December 2004.*
- 📖 *Consensus Document on the Biology of Western White Pine*
- 📖 *Consensus Document on the Biology of Citrus*
- 📖 *Consensus Document on the Biology of Cotton*

Web site: *BioTrack Online* (<http://www.oecd.org/biotrack>)

Contacts: Peter Kearns
Masatoshi Kobayashi



BIOTRACK ONLINE

BioTrack Online information system is a mechanism by which the Working Group on Harmonisation in Biotechnology and the Task Force for the Safety of Novel Foods and Feeds make available the outputs of their work. It also includes a Product Database of transgenic products which have been approved for commercial use in OECD member countries (mainly transgenic crops) and a database of small-scale field trials, as well as regulatory contacts in member countries.

The recent major output is the development of a unique identification system for transgenic crop plants. The Unique Identifier has been used as "keys" to access information of each transgenic product in the Product Database (<http://www.oecd.org/biotrack/productdatabase>), and has also been recognised as an appropriate identification system of products included in the Biosafety Clearing-house (BCH) of the Cartagena Protocol on Biosafety. The unique identifier and relevant information included in the Product Database have been sent to the Unique Identification Inventory of the BCH using an interoperability system, which has been developed in accordance with a Memorandum of Co-operation (MOC) between the OECD and the SCBD.

The Working Group has currently discussed how to assign the unique identifier for transgenic plants to products with stacked events, and how to develop a unique identification system for transgenic micro-organisms. Regarding the unique identification system for transgenic micro-organisms, the Working Group

intensively discussed at the last meeting. It took step-wise approach and started with a subset of micro-organisms: bacteria. The discussion was focused on what should be the defining unit for the unique identifier. A document with clear recommendation on the unique identifier for transgenic bacteria is expected by the next meeting of the Working Group.

Web site: *BioTrack Online*
<http://www.oecd.org/biotrack>

Product Database and Unique Identifiers
<http://www.oecd.org/biotrack/productdatabase>

Contact: Masatoshi Kobayashi



SAFETY OF NOVEL FOODS AND FEEDS

The work of OECD's Task Force for the Safety of Novel Foods and Feeds remains focused on the promotion of harmonisation in the safety assessment of novel foods and feeds, especially with respect to products of modern biotechnology.

The main output of the Task Force remain is its consensus documents. These documents compile information on the major nutrients, toxicants, anti-nutrients and allergens of specific food/feed crops, which is critical to their safety assessment. To date 12 consensus document have been completed and published, and others are been drafted.

Delegates to the Task Force are typically from those ministries and agencies, which have responsibility for the safety of transgenic products, from a human food and/ or an animal feed perspective. On the other hand, as modern biotechnology has become an increasingly global issue, the Task Force has progressively invited observer delegations and invited experts in its work. In the beginning, this included participants from Argentina; Russia; Slovenia; FAO; Codex; and the Business and Industry Advisory Committee to OECD (BIAC). But in recent meetings, there has been an increasing participation from other key non-member economies such as: Brazil, Chile, China, India, Latvia, South Africa, and Thailand. Their participation has been possible through the Global Forum on the Knowledge-based Economy (GFKE) under the auspices of OECD's Centre for Co-operation with non-members. This dialogue has shown that the consensus documents are useful and used by non-members as well as member countries.

Building on a Special Session (held during the 9th meeting in October 2004) on the use of consensus documents, the Task Force addressed at its 10th meeting (held in June 2005) how to involve more actively the expertise and interests of non member economies. As a consequence, Thailand and South Africa have now started to work on two consensus documents on the compositional considerations on papaya and cassava, respectively. These consensus documents are been written in co-operation with member countries. This will broaden the expertise that is available to the Task Force, while addressing a wider range of food and feed products that are of global interest.

The Programme of Work for the Safety of Novel Foods and Feeds for 2006-2008 has been endorsed by the 39th Joint Meeting of the Chemicals Committee and Working Party on Chemicals, Pesticides and Biotechnology (15th-17th February). The programme received strong support for addressing non-members needs. In addition, the Joint Meeting welcomed the flexibility of the Programme for addressing emerging issues and its complementary work with other foras working on the safety novel foods and feed.

At the 11th meeting of the Task Force, (6th-8th March 2006) the Task Force decided the next steps in sifting through the projects areas during the period 2006-2008, while strengthening the input of key non members.

Forthcoming Event:

- 12th Meeting of the Task Force for the Safety of Novel Foods and Feeds, Athens, Greece, 13-15th September 2006.

Recent Publications:

📖 *An Introduction to the Food/Feed Safety Consensus Documents of the Task Force*

Upcoming Publication:

📖 *Consensus Document on Compositional Considerations for New Varieties of the Cultivated Mushroom *Agaricus bisporus*: Key Food and Feed Nutrients, Anti-Nutrients and Toxicants*

Web site: *BioTrack Online* (<http://www.oecd.org/biotrack>)

Contact: Mar Gonzalez



POLICY COHERENCE FOR THE AVAILABILITY OF MEDICINES FOR EMERGING AND NEGLECTED INFECTIOUS DISEASES

Due to the threats presented by potential pandemics, OECD countries are increasingly considering the economic and social consequences of emerging and neglected diseases in developing countries. This will be an important topic at the G8 Summit in Russia. To involve OECD countries in the improvement of availability of medicines, a necessary first step is to estimate the economic burden of emerging and neglected diseases. To this end, an initial literature review has been performed on the economic consequences of infectious diseases around the world, especially in developing countries. This study focused on the consequences of HIV/AIDS, Malaria, Tuberculosis and SARS, distinguishes short, medium and long term negative economic consequences of infectious diseases, such as:

In the short and medium term;

- Direct costs due to the health expenditures.
- Loss of productivity caused by absenteeism and disability, and the reduction of a skilled labour.
- Decrease of savings in households affected by disease.
- Panic movements in trade and financial markets which can be transmitted to other countries.

In the long term:

- Reduction of human capital transmission (due to the premature loss of skilled labour) reducing the next generations' productivity.
- Reduction of foreign direct investment and trade.

In addition this review identifies pandemic scenarios in OECD countries and in East and South East Asian countries. These scenarios only estimate short term economic consequences and demonstrate the potentially high impact for the health and trade sectors.

There is scope to consider how OECD Member countries may address these potentially negative consequences by improving the availability of medicines for emerging and neglected infectious diseases in developing countries.

Contacts: Bénédicte Callan
Jean-Baptiste Chesneau



THE IMPACTS OF PHARMACOGENETICS ON HEALTH - INNOVATION AND DELIVERY

An OECD workshop addressing international perspectives on pharmacogenetics was held in Rome, on October 17-19 2005.

The workshop, co-sponsored by the Italian and Canadian Governments was held against a background of growing concerns around the safety and efficacy of new and existing drugs, and the falling productivity of the pharmaceutical R&D process.

Today it takes on average up to 12 years and about USD 800 million to bring a drug to the market. Much of this represents the costs of early failures. Of the 5,000 to 10,000 compounds screened by a researcher in a pharmaceutical company laboratory, only one will ever become a medicine. The economic burden of adverse drug reactions to health care systems is also significant: for example, in the United States the cost of drug-related morbidity and mortality exceeded USD 177.4 billion in 2000.

Pharmacogenetics can offer solutions as it provides new ways of understanding how drugs work and how this affects both their safety and efficacy. The opportunities from such understanding are considerable, particularly in driving a more efficient and effective clinical research and innovation enterprise.

The aim of the workshop was to stimulate cross-sectoral exchange on progress in the field, experience in regulatory approaches, economic impact assessment, and public-private sector co-operation. The audience comprised 130 representatives from regulatory agencies, industry, patients' organisations and health policy departments as well as health economists, academic researchers and clinicians.

Consensus was reached at the workshop on the potential of pharmacogenetics to offer new and exciting opportunities for drug development and health care.

Speakers presented examples of successful applications of pharmacogenetics (most notably the use of the anti-breast cancer drug Herceptin) where pharmacogenetics is influencing drug development, trials, safety and use today and improving the evidence linking interventions to successful health outcomes.

There was consensus too that, in general, health policy making is simply not keeping up with the implications of pharmacogenetics (and the use of biomarkers in evidence based medicine more generally).

Outputs from this workshop will form part of a policy report that will focus on the likely impacts of pharmacogenetics on health innovation and delivery, as well as on the policy choices that countries will need to make to respond to these developments.

Web site: An international perspective on pharmacogenetics: the intersection between innovation, regulation and health delivery- Rome, Italy-17-19, 2005

http://www.oecd.org/document/16/0,2340,en_2649_34537_35517584_1_1_1_1,00.html

Contact: Elettra Ronchi



GUIDELINES ON BEST PRACTICES IN MOLECULAR GENETIC TESTING LABORATORIES

On the basis of a comprehensive analysis of quality assurance practices in molecular genetic testing in 18 OECD countries, member countries reached agreement in 2004 to develop international best practice guidelines. The decision comes at a time of international convergence of opinion on the need for a broad international framework that will foster best practice and good governance in molecular genetic testing

laboratories, for example, the European Parliament called, also in 2004, for an opinion on the need for legislation in the area.

The approach agreed by OECD member country experts – and by the Organisation's governing body – is to develop broad guidelines for action, within the scope of which national or regional initiatives – including, if deemed appropriate, national legislation – might subsequently be developed.

These guidelines will offer short and succinct principles and best practices that relate to quality assurance systems, result reporting, education and training, and insofar as possible, clinical validity and utility. The guidelines should facilitate application of best practice in relation to human genetic and genomic testing, guarantee an international approach to exchange of clinical samples and data facilitating access to rare disease testing, and help meet the general objectives of OECD member countries in relation to best practices in health care.

The summary report of results from the OECD survey can be downloaded from our website.

Web site: www.oecd.org/sti/biotechnology

Contact: Elettra Ronchi



BEST PRACTICE IN GOVERNANCE AND MANAGEMENT OF HUMAN GENETIC RESEARCH DATABASES

The OECD held a workshop on “Human Genetic Research Databases (HGRDs) – Issues of Privacy and Security” in 2004. With the participation of over sixty experts, the main goals of the workshop were to:

- Gain an understanding of current practices internationally for the acquisition and maintenance of human genetic and genomic data and information;
- Identify any challenges in the management of genetic databases (including issues about their storage, use, transfer, disposal and abolition) that need to be resolved; and
- Identify good management practices for human genetic research database management, where such good practices exist.

The workshop concluded that:

- Human Genetic Research Databases (HGRDs) are an invaluable tool for research into the genetic basis of disease.
- There remains no expert consensus on whether genetic information should be treated as distinct from other medical information, though the perception of many that it has led to an increasing impact of that perception on policy making. Further efforts are required to avoid inappropriate consequences arising from such perceptions.
- Public – and more particularly, patient – trust in the development, management and governance of HGRDs remains an essential element of the enabling environment for health research and innovation in this field. (The workshop considered a number of practical approaches to assure public engagement and trust).
- Clear procedures must be in place for informing patients about the way that data based on their genetics might be used in HGRDs. Participants questioned whether current approaches to informed consent were sufficient to assure patient privacy and achieve an appropriate balance with research access. Whether or not such a balance is achieved in public policy will affect how successful genetic science is as a driver for innovative products and processes and delivery of better health.
- The OECD should develop principles of best practice for the management and governance of Human Genetic Research Databases.

The full report of the Tokyo Workshop is expected to be published shortly. The OECD governing body has agreed that best practices guidelines for management and governance of Human Genetic Research Databases should be developed based on the work of the carried out at the Tokyo workshop.

Web site: www.oecd.org/sti/biotechnology

Upcoming Publication:

📖 *Report of Tokyo Workshop on Human Genetics Research Database*

Contact: Christina Sampogna



BIOTECHNOLOGY, INNOVATION AND HEALTH

The links between innovation, productivity, health and wealth are recognised by OECD countries. But for many countries, while investing in and encouraging innovation is a priority so is maintaining the affordability, quality and sustainability of healthcare systems. The apparent tension between these two goals can be mitigated. To help meet this policy challenge, the OECD is examining two broad questions: (1) How can countries deliver greater convergence between healthcare priorities and the direction of innovation?; and (2) What tools need to be developed to ensure that decisions taken in OECD countries both foster and capture the benefits of innovations in human health-related biotechnologies?

Several projects seek to identify different ways of building partnerships that link researchers, industry, governments, policy makers, and health system managers so that the fruits of innovation are quickly and appropriately taken into health systems and reach those that need them. The projects include:

- **Case Studies on the Uptake and Diffusion of Health Related Biotechnologies.** A study of five health biotechnologies will explore the range of incentives and barriers that affect their uptake and into the health care sector. The selected technologies range in use and stage of development, including innovations that are relatively mature to those that are still emergent, but all have reached the market. The case studies include the following product categories: monoclonal antibodies as diagnostics and therapeutics; genetic tests; DNA micro-array and bio-chips; and a drug delivery technology illustrating the convergence of bio- and nano-technologies. The report will be available before the end of 2006.
- **Emerging Research Models for the Delivery of Health Innovation.** This project explores the range of novel initiatives for discovery research, development and delivery of biomedical innovations which share a common goal of more rapidly and effectively bringing biomedical products and processes from invention to market. Case studies of specific initiatives in OECD countries are being developed and will be discussed at an Expert Workshop in November 2006. A Policy Report based on the case studies and the expert workshop will help identify the tools, incentive structures, or good practices available to speed up the time it takes for laboratory discoveries to be translated into new medical treatments.
- **A Health Innovation Survey.** The main objective of this project is the identification policy tools to better promote biomedical and health care innovation that meets national health policy objectives. The project is conducting focus group interviews in eight countries with relevant ministries (Health, Industry, Research, etc.) and in some cases with private sector representatives. Interviewees have been asked about: government programs which promote innovation in the health sector and stimulate the development of new health care technologies; national health care system priorities, policies and objectives; and the relationship between policies that promote innovation and the broader health care objectives of participating countries. An analytical report based on the findings from the interviews will be available by autumn 2006.

A new OECD publication, *Health Technology and Decision Making*, analyses the barriers to, and facilitators of, evidence-based decision making in OECD health care systems. It examines how countries can successfully manage the opportunities and challenges arising from health-related technology by optimising decision making processes, recognising the value of innovation, dealing with uncertainty, and producing and co-ordinating health technology assessment. The report also considers the capacity of health innovation policy systems to respond to the particular challenges of fast-developing health-related biotechnologies.

Web site: www.oecd.org/sti/biotechnology and *Health Technologies and Decision Making* book order site.

Contacts: Bénédicte Callan
Jack Radisch



THE OUTLOOK FOR INDUSTRIAL BIOTECHNOLOGY

Advances in biotechnology are driving a gradual change towards wider and more technologically-sophisticated use of biobased alternatives and bioprocesses across a range of industries. The transformative ability of biotechnology, applied to industrial processes is delivering profitability and environmental gains hand-in-hand, and the influential report *The Application of Biotechnology to Industrial Sustainability* (OECD, 2001), prepared by the OECD Task Force on Biotechnology for Sustainable Industrial Development has prompted action in several countries towards delivering a more resilient, more sustainable and more biobased economy.

The focus at OECD on industrial biotechnology is to identify the potential contribution of biotechnology to sustainable growth and development, and identify and appraise policy options for supply and demand side interventions that can drive efficient economy transition. The programme is fully integrated with work on developing statistics and economic indicators for biotechnology.

The Task Force have conducted a survey involving 23 countries, to assess what steps governments, industry and other relevant actors are taking towards realising a biobased economy, to highlight the barriers and drivers, and identify what best practices exist in policy development internationally. Analysis of the survey findings is currently underway. Preliminary findings were discussed at an OECD workshop on *Managing the Transition to a Biobased Economy*, held in Ghent, Belgium, December 1-2 2006.

The survey analysis will be included in a 2006 policy report and recommendations on managing the transition to a biobased economy.

From 2006, OECD plans to publish a regular *Outlook for Industrial Biotechnology* that will draw on policy analysis, statistics and development of economic indicators for such applications of biotechnology.

Web site: <http://www.oecd.org/biotechnology/>
under the theme “Scientific, Industrial and Health Applications of Biotechnology”

Upcoming Publication:

 *Policy Implications for Developing a Biobased Economy*

Contact: Chris Deane



DEVELOPING A GLOBAL NETWORK OF BIOLOGICAL RESOURCE CENTRES

Biological resources are the foundation of all biological sciences research. They provide the source material for scientific investigation, leading to many of the discoveries on which biotechnology is founded.

A global network of biological resource centres is a crucial part of the infrastructure that underpins advances in the biological sciences and their capacity to contribute to sustainable growth.

Science and Technology Ministers from OECD countries last year called on the Organisation to complete development of the instruments to establish a Global Biological Resource Centre Network.

Such a network once established will:

- Make a major contribution to security by putting in place a system of quality control and tracking for maintenance and supply of dangerous pathogens;
- Provide a one-stop-shop for access to high quality biological resources for use by bio-industry;
- Help sustain the future of existing repositories of ex situ genetic resource, and thus make an invaluable contribution to the conservation of biodiversity.

At the present stage of the GBRCN project, a pilot programme is going to be launched at the first quarter 2006. The main aims of the pilot programme are:

- Create an initial network of collections, selected by national Governments, committed to become members of the GBRCN.
- Assess the impact of the general and domain specific operational standards developed by the OECD Task Force on Biological Resource Centres (TFBRC).
- Develop the virtual BRC, linking catalogue data using the tools already available.
- Identify the mechanisms for capacity building, assess key needs and discover what is available, what needs to be done, where and by whom.

Relevant experts interested in participating in the work of the Task Force on Biological Resource Centres should contact their relevant national contact points for OECD's Working Party on Biotechnology.

Web site: <http://www.oecd.org/biotechnology/>
under the theme "Scientific, Industrial and Health Applications of Biotechnology"

Contacts: Kenji Takezawa
Alexandre Bartsev



BIOSECURITY OF CULTURE COLLECTIONS

OECD experts have put forward a proposed international approach to risk assessment and management of pathogens contained in biological resource centres with a focus on limiting the potential access by terrorists and criminals, including when such materials are transferred between collections. Member country experts will continue debating the detail of this approach over the coming year.

A Joint OECD/Russian Federation workshop on Biosecurity will take place on 20-22 September 2006. The purpose of the Workshop would be to:

- Assess opportunities for reinforcement of the link between microbial resources preservation and use at International level
- Review the current status of Biosecurity measures in the Russian Federation and International community

- Review regulatory issues relating to development and implementation of Biosecurity principles
- Identify new opportunities in collaborative research, quality control of microbial resources and technology transfer in the field of biosecurity and infectious diseases between the Russian Federation and the OECD Member countries
- Discuss the developing OECD Biosecurity Principles and consider options for further steps towards development of policy recommendations.

The Workshop will be used to review a broad scope of issues relating to biosecurity programmes and to define means for further international collaboration in this area. Validation of the Biosecurity Principles and their applicability at BRCs will be discussed in the frame of the OECD regular expert meeting on Biosecurity.

Contact: Alexandre Bartsev



BIOTECHNOLOGY STATISTICS IN OECD MEMBER COUNTRIES

As a follow-up to the biotechnology statistics inventory released in 2004 (available at: www.oecd.org/sti/biotechnology/inventory), the Secretariat is preparing a new compendium of available biotechnology statistics. This compendium will be released in 2006.

The 2004 inventory was an update of a document released in 2000. It revealed a marked increase in the number of countries collecting biotechnology data since 2000. In 2004, 27 countries collected such data, or intended to in the near future, compared to 14 countries in 2000. Further, national statistical offices were the primary data collectors, whereas in 2000, biotechnology data were predominantly available from non-official sources (consulting agencies, etc).

Web sites: <http://www.oecd.org/sti/biotechnology/inventory>

Contact: Brigitte van Beuzekom



CO-OPERATIVE RESEARCH PROGRAMME (CRP): BIOLOGICAL RESOURCE MANAGEMENT FOR SUSTAINABLE AGRICULTURAL SYSTEMS'

The rationale of this OECD programme which gathers 26 OECD countries recognises that agriculture and food production are heavily dependent on the application of science and that policies in these areas need to take account of the scientific dimension. It further recognises that policy makers are often confronted by conflicting scientific evidence and public concerns, emphasising the need for policies to be based on sound science. The objectives of the Programme for the period 2005-2009, under a renewed mandate by Council, are thus the following: to provide a sound scientific knowledge base to agricultural policy-making; to contribute to an informed public debate on current and emerging agro-food issues and to help resolve conflicting views in Member countries; and to promote scientific understanding and standards between major regions of OECD.

Operational features of the Programme involve supporting and promoting international cooperation and networking in the field of basic and applied research. In this respect it awards fellowships to scientists from an OECD Member country to conduct research projects in a foreign country (OECD Member) and supports financially workshops to address agro-food issues that are high on the science/policy agenda of OECD Member countries. The CRP strategy emphasises the need to engage a range of scientific disciplines

including the natural sciences, social sciences and the humanities in an interactive dialogue. Three themes will be addressed by the Programme during its mandate period:

- 1 The Natural Resource Challenge;
- 2 Sustainability in practice;
- 3 The Food Chain

Conferences co-sponsored by the Programme for 2006 are:

- *Soils and Waste Managements: a challenge to climate change, Gorizia, Italy 15-16 June 2006*
- *Beyond the "Blue Book" Recombinant DNA Safety Considerations Celebrating the twentieth anniversary of international work on biosafety at the OECD, Ramada Plaza Hotel, Jeju Island Korea 29 September 2006*
- *The role of Rumen biohydrogenation in the production of nutritionally enhanced ruminant derived foods by sustainable means, University of Madrid Spain, 30 September – 1 October 2006*
- *International Workshop on 'Domestication, super-domestication and gigantism: human manipulation of plant genomes for increasing crop yield, Tsukuba Japan 2- 4 October 2006*
- *Forestry: A Sectoral response to climate change, Wilton Park UK 21-23 November 2006*
- *Mycotoxins from the Field to the Table, Doubletree Conference Centre, Omaha Nebraska USA 28 November – 1 December 2006*

A workshop is planned for early 2007 to identify the "state of play" regarding the relevant economic, environmental and policy issues that may warrant further examination by governments as they consider the future developments in production, consumption and trade of bioenergy. While scientific and environmental issues will be addressed, the focus of the workshop will be on the relatively less developed questions relating to the economic and policy implications of a possible increase in the use of bioenergy.

The workshop will be managed by the Directorate for Food, Agriculture and Fisheries, in collaboration with other members of the ICGF, including the International Future's Programme, the International Energy Agency, CMET, and the Directorates for Science, Technology and Industry, Environment, and Trade. Target participants include science, environment and economic experts and policy advisors, from both OECD and non-OECD countries. The programme will be partly financed through funding from the Co-operative Research Programme. The proceedings will be produced and distributed by OECD.

Information on the Co-Operative Research Programme and application forms for conference sponsorship or Research Fellowship awards are available on the Programme website: http://www.oecd.org/topic/0,2686,en_2649_33903_1_1_1_1_37401,00.html

Recent Publications

- 📖 *Crop Fertility and volunteerism: A threat to Food Security in the Transgenic Era? Bellagio, Como Italy, 24-29 May 2004 (ISBN 0-8493-2895-0-900000)*
- 📖 *Anticholinesterasa agents, health and sustainable agriculture. A specialized session of the VIIIth International Meeting on Cholinesterases, Perugia, Italy ,26-30 September 2004 (ISSN 0009-2797 157-158-1-434)*
- 📖 *Phytoremediation: Environmental and Molecular Biological Aspects, Keszthely, Hungary, 9-12 September 2004 (ISSN 0939-5075)*
- 📖 *4TH Joint INRA-RRI Symposium Gut Microbiology: Concerns and responses to Food Safety, Health and Environmental Issues 21-24 June Clermond-Ferrand, France (ISSN 0926-5287)*
- 📖 *Rhizosphere 2004: Perspectives and Challenges - A tribute to Lorenz Hiltner, Munich Germany, 12-17 September 2004 GSF Bericht 05/05*
- 📖 *Improving the Balance Between Economic Agricultural Production and Environmental Quality through Enhanced Decision Making, Hawaiï, United States, 9-11 November 2004 (ISBN 0-9769432-1-2)*
- 📖 *The Assessment of Food Quality from Cloned Animals INRA Jouy-en-Josas 21-23 November 2003 Cloning and Stem Cells Volume 6 Number 2 ISSN 1536-2302*
- 📖 *Integration of European Food Safety Research from producers to consumers: conference proceedings of 2 Conferences on Food Safety: "Food: new challenges after a century of progress", Headquarters of*

the Société Scientifique d'Hygiène alimentaire, Paris France, 17-18 June 2004 and "Integrating Safety and Nutrition Research along the Food Chain: the new challenge", Lille, October 27-29 2004.

Forthcoming publications linked to conferences held in 2005:

- 📖 *Agricultural and societal implications of contemporary embryo-technologies in farm animals, Copenhagen, Denmark 12 January 2005*
- 📖 *8th International Conference on Shellfish Restoration, 2-5 October 2005, Brest France.*

Contacts: Liliane Shettle
Caroline Keogh



OECD'S SEED CERTIFICATION AND FOREST REPRODUCTIVE MATERIAL CONTROL SCHEMES

The following three criteria namely; distinctness, uniformity and stability are used for defining crop varieties and form the basis for agricultural seed development and trade. Identification and minimum purity criteria are important components of sustainability, especially in the case of hybridisation and genetic modifications. For forest reproductive material reliability depends on several factors including local identification, regions or provinces, selection and breeding.

The OECD Seed Schemes were developed in the late 1950s to regulate international exchanges, as well as “counter season” multiplication of seed, particularly between the northern and southern hemispheres. They are implemented by member and non-member countries across all continents. For example, Kyrgyzstan and Albania became the 54th and 55th participants in the Schemes in December 2005. In essence, the Schemes attempt to harmonise certification with a view to facilitating international trade in agricultural seeds. Over 191 species, including all the basic staples and 36 800 varieties appear on the latest OECD List of Varieties Eligible for Certification. Among the emerging issues are the role of government in the control and testing of seeds, the accreditation of authorised private field inspectors and laboratories, the impact of biotechnology and advanced breeding methods on seed certification, the certification of seed mixtures (herbage species, hybrid maize, swede rape), seed lot size and homogeneity, and the issue of barcodes on OECD seed labels.

A Workshop on Seed Certification and Modern Biotechnology took place in September 2005 in Paris. The four sub-themes were; Varietal Identity, Varietal Purity, Seed Quality and Government Roles. More than 100 participants took part in the workshop including officials from 43 countries and organisations. It was agreed to establish a new “Working Group on Varietal Purity and Varietal Identity” in 2006, with the broad mandate to assess the current and future needs of international certification, including developments on genetically modified seeds.

Contacts have been developed with the Secretariat of the Convention on Biological Diversity (CBD) on issues related to compliance with the Cartagena Protocol on Biosafety. Similarly, contacts have been made with the International Federation for Organic Agricultural Movement (IFOAM) on organic seed standards.

A new OECD Scheme for the Certification of Forest Reproductive Material is currently being introduced. In 2004, a database of basic reproductive material (forest stands, etc.) available in participating countries was set up on the website.

Future events:

- Meeting of the extended Advisory Group/Agricultural Seed (11-12 April 2006, Paris, France);
- Annual Meeting of National Designated Authorities/Agric. Seed (8-12 Aug.06, Fortaleza, Brazil);
- Biennial Meeting of National Designated Authorities/Forest Reproductive Material (4-6 October 2006, Siofok/Budapest, Hungary)

Publications:

📖 *List of Varieties Eligible for Certification 2005/2006*

📖 *OECD Seed Schemes “2005”*

Web sites: <http://www.oecd.org/agr/seed>
<http://www.oecd.org/agr/forest>

Contact: Michael Ryan
Bertrand Dagallier



**THE ECONOMIC COMMUNITY OF WEST AFRICA STATES (ECOWAS) REGIONAL
MEETING ON BIOTECHNOLOGY IN WEST AFRICA, BAMAKO, JUNE 2005**

As part of the Sahel and West Africa Club's institutional partnership with ECOWAS, in June 2005, Karim Hussein, then Head of the Agricultural Transformation and Sustainable Development Unit at the OECD's Sahel and West Africa Club, and Dr Jean Sibiri Zoundi, a regional expert, were asked to participate in its Ministerial Conference on Agricultural Biotechnology and preparatory experts' meeting in Bamako, Mali. This conference aimed to establish concrete strategies and actions to promote agricultural biotechnology in the ECOWAS region. The event followed a series of regional meetings with a view to formally adopting a regional framework for biotechnology (Ouagadougou, June 2004; Abuja, November 2004). Sahel and West Africa Club's participation was a result of its ongoing work on access to agricultural innovation: how transforming agriculture contributes to the improvement of livelihoods (particularly for the most vulnerable), and how the creation of regional opportunities adds value.

A background document on Agricultural biotechnology and the transformation of West African agriculture: Regional challenges, access, regulation and future perspectives was prepared in consultation with a range of experts in the OECD and in the region. A summary of an extensive survey of West African stakeholders, including civil society, producers and agribusiness, was provide in the document *Agricultural biotechnology and the transformation of West African agriculture: Challenges and regional perspective. Summary of the Regional Consultations of West African actors.*¹

This aimed to demystify biotechnology issues among West African civil society in order to facilitate acceptance and appropriate regulation for biotechnology in the region.

We underscored the importance of:

- Developing a regional approach;
- Consulting a wide variety of regional actors;
- Maximising the advantages offered by agricultural biotechnologies while addressing possible risks through application of the provisions of the Cartagena Protocol;
- Ensuring equitable access to modern technologies for small family farms and the more vulnerable (*e.g.* women, migrants, farms less connected to markets...);
- The participation of producers and their organisations in the emerging regional biosafety and regulatory framework.

We referred to the OECD's work on agricultural biotechnology as an example of the type of coordination role ECOWAS could undertake at the regional level, supported by technical agricultural research coordination institutions such as CORAF/WECARD, *e.g.* establishing a process of undertaking formal risk assessments for new biotechnology and sharing results across member countries; the process for building

¹ Both documents are available from SAH (contact Leonidas.Hitimana@oecd.org).

consensus among members on the safety of each biotechnology and ‘consensus documents’; the Lead Country Approach; and the role of the OECD’s Internal Co-ordination Group on Biotechnology.

Agricultural biotechnology is part of a ‘toolkit’ of agricultural technologies that can help increase incomes and food security. However, it is not a “Magic Bullet”. Other factors and alternatives need to be taken into account: social factors, fears of civil society regarding biosafety; producer fears of contamination traditional varieties, limitations on exchanging and re-using seeds and the obligation to buy seeds after each harvest creating a dependency on suppliers; consumer preferences; economic constraints, such as demand, product price volatility, market access, trade and intellectual property rights; and institutional issues, such as the strength of producer organisations, the crisis of extension services, and the need to rebuild effective and safe seed supply and distribution networks in Africa. Producer organisations (POs) emphasised the need to adopt the precautionary principle and to establish a 5-year Moratorium on adoption of biotechnology. Participants acknowledged the need to address these concerns and to gradually build civil society understanding and trust as biotechnology was introduced in the region. They also agreed that a regional framework was important for biotechnology, as some countries were moving faster than others. It was also agreed to set up impartial information mechanisms for farmers and consumers and to develop a regional approach to address issues related to agricultural biotechnology.


Outputs of the ECOWAS Ministerial Meeting included: a Declaration of the Experts Meeting, 21-23 June; a Declaration from the Ministerial meeting on 24 June; a document on the creation of Centres of Excellence on agricultural biotechnology in West Africa; an information and communication strategy for ECOWAS on biotechnology; and a paper on a regional approach to biosafety in the region. These outlined a process by which agricultural biotechnology could be assessed and adopted in West Africa once a suitable regional regulatory framework had been established in consultation with all key actors. They restated the importance of the precautionary principle, and the need to pay a particular attention to issues dealing with patent, the rights of the producers, equal access to biotechnologies, capacity building and sovereignty, especially in the area of seeds. The Sahel and West Africa Club continues to work with ECOWAS on the regional agricultural policy and agricultural innovation (see: <http://www.oecd.org/sah>).



OECD BIOTECHNOLOGY AND THE WORLD WIDE WEB

OECD’s web site includes much information on biotechnology, biosafety and related topics. The web site allows individual users to tailor the OECD site to their needs. By selecting the themes that interest them, visitors can personalize their homepages at My OECD to present the news, events, and documentation related to their chosen themes. Visitors can also choose to receive automatically future editions of Biotechnology Update through My OECD.

- OECD’s portal is: <http://www.oecd.org>
- OECD’s biotechnology portal: <http://www.oecd.org/biotechnology>
- For more information on industrial, scientific and health applications of biotechnology, see: <http://www.oecd.org/biotechnology/> under the theme “Scientific, Industrial and Health Applications of Biotechnology.”
- The BioTrack information system (which covers biosafety) is found at: <http://www.oecd.org/biotrack/>

 *Hard copies of many OECD publications can be obtained free-of-charge from the ICGB Secretariat.*



NANOTECHNOLOGIES – AN EMERGING ISSUE


The OECD is currently exploring possible activities related to nanotechnologies / nanomaterials. In order to secure internal co-ordination by all the concerned Directorates, the Secretariat decided that the OECD's Internal Co-ordination Group for Biotechnology (ICGB) (which co-ordinates biotechnology issues) will provisionally deal with issues related to nanotechnology/ nanomaterials.

At the present, the state of the art is as follows:

Joint Meeting of the Chemicals Committee and Working Party on Chemicals, Pesticides and Biotechnology (Joint Meeting)

The international Workshop on the Safety of Manufactured Nanomaterials was held the 7th-9th December 2005 in Washington D.C. Following to the conclusion and recommendations, the Joint Meeting decided to recommend the establishment of a Working Party on Manufactured Nanomaterials. Consistent with the Terms of Reference of the Joint Meeting, the Working Party will work to promote international co-operation in the health and environmental safety related aspects of manufactured nanomaterials. Accordingly, the areas of work to be addressed are: i) definitions, nomenclature and characterisation; ii) environmental fate and effects (hazard identification, hazard, exposure and risk assessment methods); iii) human exposure and health effects (hazard identification, hazard, exposure and risk assessment methods); and iv) exchange of information on regulatory and risk management frameworks (limited mainly to the industrial chemicals sector). Accordingly, this group will track relevant scientific research efforts; identify relevant research needs; and develop and promote a strategy to meet identified needs.

Publication:

 *Report of the OECD Workshop on the Safety of Manufactured Nanomaterials: Building Co-operation, Co-ordination and Communication, 7-9 December 2005.*

Committee for Scientific and Technological Policy (CSTP)

The Committee for Scientific and Technological Policy is discussing a possible new activity on nanotechnology. This follows on work in 2003 that examined R&D programmes in nanotechnology in the OECD area. Consistent with CSTP's mandate and strategic orientations, the objective of this activity would be in enhancing economic growth and social welfare by fostering science and innovation. By co-ordinating with other activities of the organisation, the proposed activity would initially focus on achieving a better understanding of how best to enhance research, development and innovation in nanoscience and nanotechnologies and the responsible commercialisation of products from this research. The activity would also develop statistics and indicators on nanotechnology, to help track the development of the technology. The coordination of CSTP activities on nanotechnology with other OECD bodies will be undertaken through the ICGB, as ICGB includes all the relevant areas of OECD work and as it has operated successfully in the field of biotechnology. A scoping meeting on the proposed work will be held in the summer, with the aim to develop a final work proposal for the CSTP meeting of October 2006.



FUTURE EVENTS

- ◆ Working Group on Human-Health Related Biotechnology, Paris, France, 15-16 May 2006 (Contact: Benedicte Callan, Elettra Ronchi)
- ◆ Task Force on Biotechnology for Sustainable Industrial Development, London, 17-18 May 2006 (Contact: Chris Deane)
- ◆ Committee on Biotechnology, Paris, France, 1-2 June 2006 (Contact: Stella Horsin)

- ◆ 18th Meeting of the Working Group for the Harmonisation of Regulatory Oversight in Biotechnology, Bern, Switzerland, 7-9 June 2006 (Contact: Masatoshi Kobayashi)
- ◆ 12th Meeting of the Task Force for the Safety of Novel Foods and Feeds, Athens, Greece, 13-15th September 2006 (Contact: Mar Gonzalez)
- ◆ A Joint OECD/Russian Federation workshop on Biosecurity, Moscow, 20-22 September 2006 (Contact: Jack Radisch, Alexandre Bartsev)
- ◆ Expert Meeting on Biosecurity and Biological Resource Centres, Moscow, September 2006 (Contact: Alexandre Bartsev)
- ◆ OECD Workshop: *Beyond the Blue Book*, Jeju Island, Korea, 29 September 2006 (Contact: Peter Kearns)
- ◆ Working Party on Biotechnology, Paris, France, 17-18 October 2006 (Contact: Stella Horsin)
- ◆ Committee on Biotechnology, Paris, France, 4-5 December 2006 (Contact: Stella Horsin)
- ◆ Task Force on Biological Resource Centres, Paris, 4-5 December 2006 (Contact: Kenji Takezawa)



WHO'S WHO IN BIOTECH AT OECD

Michael OBORNE (SGE/AU)

Chairman of the ICGB

Director Multidisciplinary Issues and the International Futures Program

Peter KEARNS (ENV/EHS)

Secretary to the ICGB

Head of Biosafety Programme

Harmonisation of Regulatory Oversight in Biotechnology

Safety of Novel Foods and Feeds

Alexandre BARTSEV (STI/BIO)

Biological Resource Centres

Benedicte CALLAN (STI/BIO)

Biotechnology, Innovation and Health

Jean-Baptiste CHESNEAU (STI/BIO)

Emerging and neglected diseases

Andrew DAVIS (GOV/RCG)

Clusters

Chris DEANE (STI/BIO-SGE/AU)

Sustainable Industrial Development

Biosecurity of Culture Collections

Biosecurity (General)

Iain GILLESPIE (STI/BIO)

Head of Biotechnology Division

Working Party on Biotechnology

Maria del Mar GONZALEZ (ENV/EHS)

Safety of Novel Foods and Feeds

Harmonisation of Regulatory Oversight in Biotechnology

Léonidas HITIMANA (SAH)

SWAC Contact Person

Stella HORSIN (STI/BIO)

Working Party on Biotechnology

Karim HUSSEIN (SGE)

Executive Assistant to Deputy Secretary General Akasaka

Masatoshi KOBAYASHI (ENV/EHS)

BioTrack Online

Harmonisation of Regulatory Oversight in Biotechnology

Dirk PILAT (STI/STP)

Head of the Science and Technology Policy Division

Committee on Science and Technology Policy

Jack RADISCH (STI/BIO)

Biotechnology, Innovation and Health

Biological Resource Centres

Elettra RONCHI (STI/BIO)

Quality Assurance of Genetic Testing

Pharmacogenetics

Christina SAMPOGNA (STI/BIO)

Intellectual Property Rights (IPRs)

Collaborative IPR Mechanisms

Human Genetic Research Databases

David SAWAYA (SGE/AU)

The Bioeconomy to 2030

Biosecurity

Liliane SHETTLE (AGR/CMU)

Cooperative Research Programme

Kenji TAKEZAWA (STI/BIO)

Biological Resource Centres

Human Genetic Research Databases

Biotechnology, Innovation and Health

Brigitte VAN BEUZEKOM (STI/EAS)

Biotechnology Statistics

Martin VON LAMPE (AGR/TM)

Bioenergy Workshop



CONTACT POINT:

- Peter Kearns
Secretary, ICGB
OECD
2 rue André-Pascal
75775 PARIS Cedex 16
France
Tel: (33-1) 45 24 16 77
Fax: (33-1) 45 24 16 75
E-mail: Peter.Kearns@oecd.org

MEDIA ENQUIRIES:

- Helen Fisher
OECD, Communications
2 rue André-Pascal
75775 PARIS Cedex 16
France
Tel: (33-1) 45 24 80 97
Fax: (33-1) 45 24 94 37
E-mail: Helen.Fisher@oecd.org



ENDNOTE: A BRIEF GUIDE TO THE OECD

The Organisation for Economic Co-operation and Development (OECD) is an intergovernmental organisation with 30 member countries. Its principal aim is to promote policies for sustainable economic growth and employment, a rising standard of living, and trade liberalisation. By sustainable economic growth the OECD means growth that balances economic, social and environmental considerations.

The OECD is an institution that enables its member countries to discuss and develop both domestic and international policies. It analyses issues, recommends actions, and provides a forum in which countries can compare their experiences, seek answers to common problems, and work to co-ordinate policies. An increasing number of non-member countries participate in a wide range of activities, including some of those related to biotechnology.

The Council of OECD is the highest decision-making body of the Organisation. Its members are the Ambassadors of the Member countries to OECD. It is chaired by OECD's Secretary-General. Once a year, it meets at the level of Ministers from member countries. Amongst other things, the Council decides on the annual budget of Organisation as well as the content of the programme of work.

In addition to the Council, there are around 200 specialised Committees and other bodies (including Working Parties, Working Groups, and Task Forces), which undertake the Organisation's programme of work. The governments of the Member countries nominate the participants to all these groups.

The list below shows the main OECD bodies that have activities related to biotechnology:

OECD Council

Committee for Agriculture (COAG)

- ◆ Seeds Scheme
- ◆ Co-operative Research Programme

Committee for Scientific and Technological Policy (CSTP)

- ◆ Working Party on Biotechnology
- ◆ Working Group on Human-Health-Related Biotechnologies
- ◆ Task Force on Biological Resource Centres
- ◆ Task Force on Biotechnology for Sustainable Industrial Development

Environment Policy Committee (EPOC)

- ◆ Working Group on Economic Aspects of Biodiversity

Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology (Joint Meeting)

- ◆ Working Group for the Harmonisation of Regulatory Oversight in Biotechnology
- ◆ Task Force for the Safety of Novel Foods and Feeds

