## 9th International Conference on Protein Stabilisation

The Institute of Biotechnology and Bioengineering at Instituto Superior Técnico (Lisbon, Portugal) and the Section on Applied Biocatalysis (ESAB) of the European Federation of Biotechnology organize the 9th International Conference on Protein Stabilisation *ProStab2012* which will be held from 2nd to 4th of May 2012, in Lisbon, Portugal.

The Conference is intended to highlight recent advances in protein folding, denaturation and stabilization. Particular focus will be given to stabilization procedures in terms of thermodynamic principles, methods of preserving protein structure and understanding interactions with the environment. The program will also cover protein stabilization methods in industrial applications, biocatalysis, incorporation into bioreactive coatings, biosensors and therapeutics. Presentations will be divided into 5 sessions: *Folding, thermodynamic stability and dynamics*, *Methods and mechanisms for protein stabilization*, *Protein-environment interactions*, *Protein immobilization* and *Protein aggregation and formulation*. Scientists from academia and industry are invited to submit their abstracts for oral and poster presentations describing original research in any of the conference scientific topics.

Additional information is available at http://prostab2012.ist.utl.pt.

## Biodiesel market develops dynamically in the United States

The latest Environmental Protection Agency data shows that biodiesel industry in the United States (US) has set a new record for annual production in 2011. American industrial plants have produced over 802 million gallons (over 3.1 billion liters) of biodiesel in 2011, which is almost three times more than the 2010 production of about 315 million gallons (about 1.19 billion liters). This also breaks the previous production record of 690 million gallons (2.6 billion liters) set in 2008. The dynamic growth of biodiesel market is a result of a federal tax incentive reinstated in December 2010, which gave $1 per gallon tax credit to biodiesel manufacturers. Without the incentive in 2010, the production dropped dramatically and thousands of people lost their jobs.

Successful stimulation of biodiesel production in 2011 supported more than 31 000 jobs, compared to fewer than 13 000 positions in the biodiesel industry in 2010. Moreover, it generated at least 3 billion dollars in Gross Domestic Product and 628 million dollars in federal, state and local tax revenues. Another benefit of increased biodiesel production is the reduction of US reliance on foreign oil, raising economic and national security by diversifying the fuel supply.

***Source***

National Biodiesel Board Press Release, www.biodiesel.org/news/pressreleases/20111128_ProductionRecord.htm, 28 November 2011.

## Biotechnology report *Biotech in the new EU Member States: an emerging sector*

EuropaBio (The European Association for Bioindustries) and Venture Valuation AG (Zurich, Switzerland) have prepared a unique complex report that analyzes the status of biotechnology industry in the new European Union member states and candidate countries. The report presents data gathered in 2008 and the publication was prepared in 2009.

The main goals of the report were to strengthen the understanding of the European biotechnology scene and to enable the policy makers and investors to make informed decisions about biotechnology support and development. The report is focused on 12 new member states and 2 candidate countries: Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, the Slovak Republic, Slovenia, and Turkey. Authors of the publication measured the development of biotechnology in these countries through establishment and calculation of the Deve-

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lopment Capacity Index (DCI). The Index uses both quantitative factors, such as the number of biotechnology companies and the number of products in the pipeline, and qualitative parameters, such as the level of government support and infrastructure development.

The presented study has identified 260 biotechnology companies currently operating in the 14 chosen countries. These numbers depict that the biotechnology sector in the Central European region is still small and immature when compared to the Western European countries – for example Germany and Switzerland, which together house over 1000 biotechnology companies, with nearly 200 of them developing human therapeutics. In comparison, among the companies operating in new member states and candidate countries, only 29 conduct research and development of human therapeutic compounds as their main activity, 55 operate in other biotechnology areas such as veterinary therapeutics, agri-bio and industrial biotechnology, and the overwhelming majority of 176 companies operate by providing biotechnology services such as, contract research (CRO), diagnostics, manufacturing and analytical services. However, countries such as Hungary, Poland and the Czech Republic, closely followed by Estonia, are the leading group and are already at par with some Western European countries. These 4 countries report the highest numbers of biotechnology companies and the most developed biotechnology sectors among the 14 countries analyzed. On the other hand, countries such as Malta and Bulgaria house only one biotechnology company each. This shows a huge disproportion in the state of biotechnology industry in selected countries.

The report summary emphasizes that the development of R&D and the biotechnology sector has been declared as a national priority by most of the listed countries but this has not always been put into practice. Unfortunately, the financial crisis, among other reasons, has resulted in a shift of political focus away from biotechnology.

The report is available as a pdf file at www.europabio.org/nac/positions/biotech-new-eu-member-states-emerging-sector.

## Blue biotechnology conference

In the framework of SUBMARINER project, the Center for Marine Natural Products (KiWiZ) at IFM-GEOMAR (Kiel, Germany) and Norgenta North German Life Science Agency GmbH (Hamburg, Germany) will host the Blue Biotechnology Cooperation Event *New Strategies and Future Perspectives*. The conference will take place in Kiel, Germany, on 9$^{th}$-10$^{th}$ May 2012.

The aim of this unique event is to gather scientists, private companies and government representatives interested in marine and aquatic applications of biotechnology and to initiate co-operation projects in this field. Advanced scientific approaches, case studies of companies and strategies for promoting blue biotechnology will be presented.

Two sessions are planned during the conference, i.e. *State-of-the-art and future perspectives of blue biotechnology in Europe, the Baltic Sea Region (BSR) and on a national level* and *Blue biotechnology science meets industry*. The first session will provide an overview of scientific and industrial activities in the field of blue biotechnology in Europe and in the BSR, as well as in specific countries and regions. Environmental aspects, legal regulations and economic impacts will also be discussed in this context. Furthermore, different European projects dealing with blue biotechnology will be presented. The second session will demonstrate the path from marine habitat to biotechnological product. Several sub-sessions will show different applications of marine natural products and raw materials e.g. in cosmetics, nutraceuticals and pharmaceuticals as well as their use for animal feed or industrial processes.

Submariner is a European project funded by the Baltic Sea Region Program 2007-2013. It aims to implement environmentally friendly as well as economically appealing innovative technologies within the BSR and become a *model region* for sustainable sea management. The Maritime Institute in Gdansk and Gdansk Science and Technology Park are the Polish institutions which actively participate in this project.

More information about the registration and agenda of the conference is available at www.submariner-project.eu

## European Human Genetics Conference 2012

Annual European Human Genetics Conference will be held on 23$^{rd}$-26$^{th}$ of June 2012 in Nürnberg Convention Center Ost, Germany. The conference will cover all aspects of human genetics, from the cutting edge re-

search in the human genome, personalized genetics and chromosomal conditions, to the practical issues of organizing genetic services to deliver the benefits of this knowledge to the society. A wide scope of topics will be discussed, including cancer genetics, epigenetics, prenatal diagnosis, genomics and drug response, genetics of neuropsychiatric disorders, genetic counseling or intellectual disabilities with the genetic background.

The conference program includes numerous educational sessions, workshops, plenary sessions, symposia, corporate satellite events, exhibition of over 70 life science companies, and poster sessions. Previous European Human Genetics Conference, which took place in 2011 in Amsterdam, gathered almost 2500 active participants.

Registration forms, complete program and the list of exhibiting companies may be found at the conference web site: https://www.eshg.org/eshg2012.0.html.

## GM crops cultivation in 2010

The International Service for the Acquisition of Agri-biotech Applications (ISAAA) recently presented *Global Status of Commercialized Biotech/GM Crops: 2010* publication prepared by Clive James. The report presents detailed information concerning genetically modified (GM) crop cultivation worldwide in the year 2010.

The number of countries planting biotech crops reached 29, up from 25 in 2009. In 2010, for the first time, the top ten countries each grew more than 1 million hectares of GM plants; in decreasing order of hectarage they were: USA (66.8 million hectares), Brazil (25.4), Argentina (22.9), India (9.4), Canada (8.8), China (3.5), Paraguay (2.6), Pakistan (2.4), South Africa (2.2) and Uruguay (1.1). The remaining 19 countries which grew GM crops in 2010, in decreasing order of hectarage, were: Bolivia, Australia, Philippines, Burkina Faso, Myanmar, Spain, Mexico, Colombia, Chile, Honduras, Portugal, Czech Republic, Poland, Egypt, Slovakia, Costa Rica, Romania, Sweden and Germany. Additionally, another 30 countries imported biotech crop products for a total of 59 countries approving the use of GM crops.

According to the ISAAA report, in 2010, 15.4 million farmers planted 148 million hectares of biotech crops as compared to 14 million farmers and 134 million hectares in 2009. This means that the global biotech crop cultivation area increased in 2010 by 10%. Interestingly, 90% of the farmers cultivating GM crops were small and resource-poor farmers from the developing countries.

Currently, there are two GM crops approved in the European Union – Amflora potato and Bt maize. In 2010, Bt maize was grown in Spain, Czech Republic, Portugal, Romania, Poland and Slovakia and the Amflora potato was grown in Czech Republic, Sweden, and Germany on the area of 91193 hectares and 245 hectares, respectively. The hectarage planted to Bt maize in Poland in 2010, estimated at 3000 hectares, was the same as in 2009.

It is underlined in the ISAAA report that the year 2010 is the 15th anniversary of biotech crops commercialization, first planted in 1996. The growth from 1.7 million hectares of biotech crops in 1996 to 148 million hectares in 2010, which is 87-fold increase, makes biotech crops the fastest adopted crop technology in the history of modern agriculture.

The complete report is available at ISAAA website: www.isaaa.org.

## Series of online seminars about biotherapeutics

*Genetic Engineering & Biotechnology News* (*GEN*) web site provides free illustrative and instructional online seminars (called *webinars*) that present technologies used at various stages of drug discovery and development, from basic research to biomanufacturing. The series might be especially interesting for the specialists working in biotech-therapeutic sector. Among the webinars available are: *Conformational Analysis of Biotherapeutics*, *Enhancing Mass Spectrometry for Biopharmaceutical Product Development* or *Reducing Downstream Harvest Steps for Improved Bioprocess Economics*.

*GEN* is a biotechnology news service launched in 1981. Issues of *Genetic Engineering & Biotechnology News* are published 21 times a year with additional content online. This is a valuable news service which presents developing technologies in the entire bioproduct life cycle from early-stage R&D, to applied research including omics, biomarkers, diagnostics bioprocessing and commercialization.

Webinars are available at www.genengnews.com/webinars/gen-webinars.