

## **Industrial Biotechnology Congress**

August 10-12, 2015 Birmingham, United Kingdom

(Theme: Milestones of Innovative Scientific Research in Biotechnology & its Industrial Applications)

### **About the Congress:**

Industrial Bio-2015 welcomes Biotechnologists, Scientists, Industrialists and Clinicians from all over the world to Birmingham, UK. We are delighted to invite you all to attend and register for the "Industrial Biotechnology Congress (Industrial Bio-2015)" which is going to be held during August 10-12, 2015 in Birmingham, UK.

The organizing committee is gearing up for an exciting and informative conference program including plenary lectures, symposia, workshops on a variety of topics, poster presentations and various programs for participants from all over the world. We invite you to join us at the Industrial Bio- 2015, where you will be sure to have a meaningful experience with scholars from around the world. All members of the Industrial Bio- 2015 organizing committee look forward to meet you in Birmingham, UK.

For more details please visit:

http://industrial-biotechnology.omicsgroup.com/

#### **Importance & Scope:**

Industrial Biotechnology is a set of practices that uses living cells or component cells such as enzymes to generate industrial products & processes. It is a key enabling technology to realize a bio economy that uses biological resources as an input to industrial processes, and biobased processes to help industries become more environmentally sustainable. **Industrial Biotechnology Congress** will provide a platform for researchers and decision makers in biotechnology to present their latest findings and learn about all the important developments in biotechnology.

**Industrial Bio-2015** will cover the translational nature of biotechnological research, with emphasis on both the basic science as well as its applications in industry and academia. This event will promote global networking among business leaders, investors, and policy makers in biofuels, biobased products, and renewable chemicals. The congress comprises the topics like industrial fermentation of bio based products, genome engineering for industrial applications and these are having most established applications in food & beverage sector.

Through this congress will get all relevant information regarding how to reduce the environmental impact of manufacturing; for example by treating industrial wastewater onsite using biological mediums such as microbes.

#### Why Birmingham?

Birmingham in the West Midlands is the Britain's second largest city. Known in the Victorian era, as the "City of a 1000 Trades" and the "Workshop of the World", Brum as locals call the city, is enjoying 21st century resurgence as a great shopping and cultural destination. Birmingham was at the heart of the UK's industrial revolution, and its wealth was built upon the multitude of trades that were spawned. This led to a massive canal network, with more miles of canals than Venice or Amsterdam (though they're very different types of canal). The city is a major international commercial centre and an important transport, retail, events and conference hub.

Birmingham has many literary associations - not only JRR Tolkien, but also Washington Irving, who wrote Rip Van Winkle while lodging here with his sister's family, and Conan Doyle, who bought a violin in Sherlock Street while a medical student in Birmingham. The authors Jim Crace, Judith Cutler and David Lodge are also residents. The nearby locations of Shropshire, Warwick, and Stratford-Upon-Avon provide more of the stereotypical images of "old" England. However, Birmingham has many of its own tourist attractions, has an extremely lively night life, and the shopping is arguably one of the best outside of London.

### **Conference Highlights:**

- Biotechnology & its Applications
- Industrial Microbiology & Enzyme Technology
- Microbial & Biochemical Technology
- Metabolomics & Genomics Research
- Food Processing, Functional Foods & Health
- Biotechnology & Pharmaceutical Industry
- Tissue Engineering & Biomaterials
- Plant Extracts & Commercial Uses
- Environmental Biotechnology
- Biotechnology in Healthcare Industry
- Stem Cell Therapeutics Commercialization
- Nanobiotechnology
- White Biotechnology & Economy
- Regulatory & Ethical Aspects

#### Why to attend???

Industrial Biotechnology Congress is a remarkable event which brings together a unique and international mix of Biotechnology Researchers, Industrial Biotechnologists, leading Universities and Research Institutions making the congress a perfect platform to share experience, foster collaboration across Industry and Academia, and evaluate emerging technologies across the globe.

### Be a part of it!

- Industrial Bio-2015 focuses on all the major aspects in the field of Biotechnology, Microbial & Biochemical Technology which emphasizes on topics like Bioprocess, New approaches to Fermentation technology, Applications of Biotechnology like Advances in animal biotechnology, Plant biotechnology and crop improvement, Nanobiotechnology.
- This congress will provide excellent opportunity for presenting the highest quality basic and translational science as well as nurturing scientific collaborations through networking.
- Congress creates a huge platform for Scientists, Professors, Students and Delegates to share their ideas and innovations and in turn enhance the progression of science and technology in both business and academia around the world.
- Students will get the opportunity to global networking and exchanging ideas from the international academic and corporate biotechnology communities.

A Unique Opportunity for Exhibitors and Sponsors at this International event:

http://industrial-biotechnology.omicsgroup.com/sponsors.php

#### Major Biotechnology Associations around the Globe

- American Society of Gene Therapy (ASGT)
- Biotechnology Industry Organization (BIO)
- Center for Advanced Training in Cell and Molecular Biology
- Bioindustrial Association (BIA)
- Australian Biotechnology Association (AusBiotech)
- California Separation Science Society separation science and bioanlysis (CaSSS)
- Environmental Mutagen Society U.S. (EMS)
- Japanese pharmaceutical societies
- NIH National Institutes of Health (USA)
- Northeast Structural Genomics Consortium
- The New York Biotechnology Association (NYBA)
- Swiss Biotech Association
- Biotecanada
- Bioindustrial Innovation Centre
- Centre for commercialization of Regenerative Medicine
- New York Structural Genomics Research Consortium

#### Major Biotechnology Associations in Europe

- Association of the British Pharmaceutical Industry (ABPI)
- Biotechnology and Biological Research Council (UK) (BBSRC)
- European Society for Animal Cell Technology (ESACT)
- Association for Clinical Data Management UK (ACDM)
- European National Medicines Authority
- Association of Information Officers in the Pharmaceutical Industry UK (AIOPI)
- Academy of Pharmaceutical Sciences of Great Britain (APSGB)
- National Pharmaceutical Association (UK)
- U.K. Office of Science and Technology (OST)
- British Association of Research Quality Assurance (BARQA)
- European Federation of Biotechnology (EFB)
- Institute of Quality Assurance (UK) (IQA)
- European Association of Pharma Biotechnology (EAPB)
- European Generic Medicines Association
- European Federation for Pharmaceutical Sciences (EUFEPS)

#### **Target Audience:**

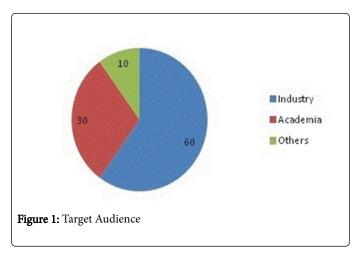
CEO, Directors, Vice Presidents, Co-directors, Biotechnologists, Food, Environmental & Plant Scientists, Clinicians, Professors, Health care industrialists, Post Doctorate Fellows, Brand Manufacturers of Consumer Products/ Managers, Pharmaceutical Scientists, Students.

#### **Target Audience:**

Industry 60%

Academia 30%

Others 10%



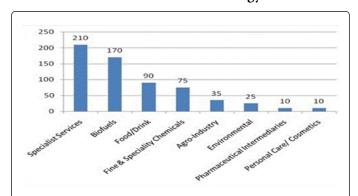
# Major UK Universities Departments involved in research in industrial biotechnology:

- School of Chemistry, University of Edinburgh
- The Satake Centre for Grain Process Engineering, University of Manchester
- Green Chemistry Centre of Excellence, university of York
- Bicomposites Centre, Bangor University
- School of Science & Technology, university of Teesside
- Department of Chemistry, Imperial College London
- School of Applied Sciences, Cranfield University
- · Genomics Research Centre, University of Warwick
- Centre for Sustainable Chemical Technologies, University of Bath
- Warwick Manufacturing Group, University of Warwick
- Biocatalysis Centre, University of Exeter
- School of Chemistry & Chemical Engineering, Queen's University Belfast

### **Industrial Biotechnology Sector in UK**

Major segments in Industrial Biotechnology sector include bio fuels, specialist services, food & beverage, pharmaceuticals and agro industry. The largest segment in terms of turnover is the specialist services segment with just over £200m of turnover based on providing services, equipment and materials into the sector in the UK and overseas. The largest group of companies in the specialist suppliers segment supply enzymes and enzyme technology and all together these companies represent 87% of the turnover.

#### Industries associated with Biotechnology



**Figure 2:** Industries associated with biotechnology and there turnover in euro millions

The data suggests that the sector in the UK is growing with the majority of companies active in the areas of biofuels and specialist services, particularly in the supply of enzymes & chemicals.

# Number of companies per segment for the Industrial Biotechnology sector:

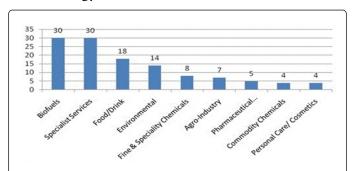


Figure 3: Companies per segment for the industrial biotechnology sector

### Glance at market of Industrial Biotechnology:

Industrial biotechnology, sometimes referred to as white biotechnology, is the application of biotechnology for industrial purposes, including the manufacture of feedstock chemicals (e.g. succinic and lactic acids), fine chemicals (e.g. amino acids), biopolymers and bio-plastics and biofuels. The market in 2011 was estimated at £32bn based on the market value of products such as amino acids, glycerin, lactic acid, vitamins and alcohols and involves some 4,000 companies worldwide. (Presentation from Industrial Biotechnology Leadership forum, Jan 2013).

The production of industrial enzymes, a particularly strength of the European region, is another significant market with a global value of £1.9bn in 2011 for products used in the food, brewing, detergent and animal feed industries (Global Industrial Enzymes Market 2012-2016, TechnNavio, 2013). The biofuels market has grown rapidly since 2005 encouraged by mandatory use regulations. The global biofuels demand in the 2010 was estimated at 59.2bn US gallons consisting of mainly ethanol and biodiesel (Biofuels – A Global Market Overview, Industry Experts, April 2013) produced from feedstock's such as corn, sugar cane and wheat. The market is particularly strong in the North and South America, with revenues within the USA accounting for 45% of the global market in 2011(Global Biofuel Market Outlook to 2016 – Going Mainstream through Government Support, EN Research, Nov 2012).

# Statistics showing market growth in Industrial Biotechnology

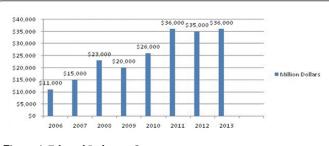
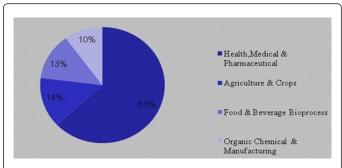


Figure 4: Ethanol Industry Output



**Figure 5:** Contribution of Industrial Biotechnology to the development of Bio based Economy

#### **References:**

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