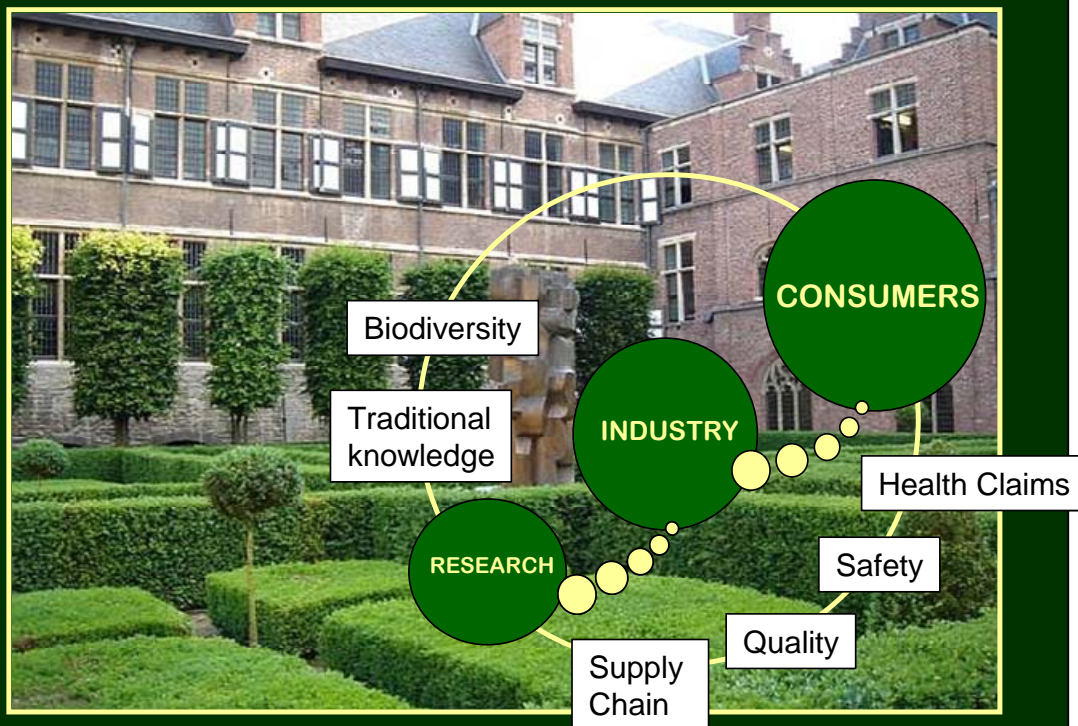


EULAFF INTERNATIONAL WORKSHOP

Opportunities for new functional food, healthcare & wellness products from Latin American Biodiversity

Het Pand,
Gent,
Belgium

December
8-9
2008



CONCEPT NOTE & PROGRAM

A UNIQUE OPPORTUNITY TO ANALYSE:

- **What do European consumers want?** – what are the key trends in consumer preferences & what is the impact of their views on sustainable use of biodiversity?
- **What is the regulatory framework within which European industry operates?** – from sourcing natural products to product marketing, what are the challenges and opportunities that national and international legislation bring in shaping the sector?
- **How can Latin American research organisations deliver innovation?** – what are the latest breakthroughs, how is the research community networked, what are their most pressing needs, how do they work with industry and what are the initiatives for promoting an entrepreneurial spirit?

A UNIQUE OPPORTUNITY TO FORMULATE A COOPERATIVE ACTION PLAN:

- Focussed on the sustainable use of Latin American biodiversity and its conservation for the benefit of consumers, industry, the promotion of ethnobotanical knowledge and international research cooperation

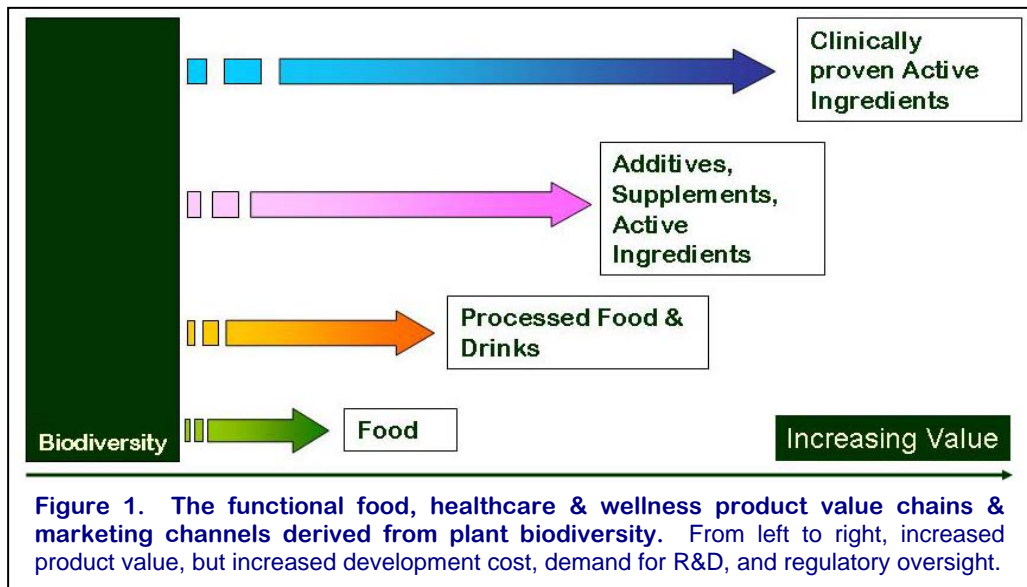
1. CONTEXT OF THE WORKSHOP

Underlying opportunities and challenges

An increasingly health conscious and information-savvy public continues to demand functional food and supplement products for personal healthcare regimens. This trend is endorsed by the medical profession and is now a core component of mainstream society.

New value chains and marketing channels are emerging (see Figure 1.) that provides more consumer choice & creates opportunities for companies to differentiate and grow, for

entrepreneurial initiatives, and the creation of new businesses. New business models must evolve to meet the challenges that increase with magnitude with each step up the value chain:



- cost and complexity of global sourcing, country of origin labelling;
- the impact of certification, authenticity, fair trading and verification concepts;
- impact of National and International legislation under the provisions of the Convention on Biological Diversity¹ coupled with increased public scrutiny of corporate environmental and social responsibilities
- supply chain management, production sustainability & standardisation;
- quality control, safety & good manufacturing practices (GMP) legislation;
- demand for ever more innovative and costly R&D programs;
- risk of failure;
- Intellectual property considerations & technology transfer considerations;
- costly preclinical and clinical studies to meet regulatory barriers for marketing and product labelling legislation;
- marketing costs; and,

Turning these challenges into opportunities - especially under the present economic climate and heightened public scrutiny and regulatory stringency – demands increased attention to quality and safety to deliver science-based, less expensive functional food and natural health products. The development of more innovative products in an increasingly fragmented and niche-oriented market will continue to drive differentiation and growth, demanding creativity in re-evaluating business models.

Within this increasingly challenging environment, the objectives of the workshop are:

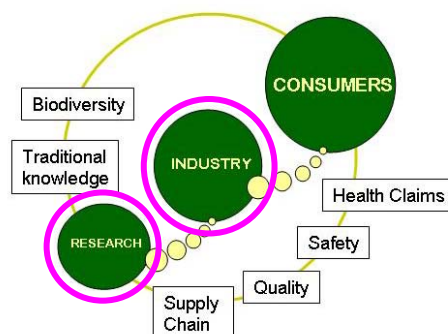
- to provide an opportunity for European Industry to see first hand, the wealth of R&D initiatives and entrepreneurial activities in the field of functional foods, healthcare and wellness products currently underway in Latin America;
- to provide an opportunity for Latin American researchers and entrepreneurs to learn about the intricacies, opportunities and challenges presented by the European Market.
- to develop an action plan for increased cooperation between Latin American research and European Industry.

¹ <http://www.cbd.int/convention/convention.shtml>

2. R&D AGENDAS FOR INNOVATION

Key areas of focus are digestive health, heart health, women's health, "beauty from within", cholesterol lowering and antilipidemics, respiratory disorders, diabetes, mood balancing, anxiety, sleep disorders & cognitive function, energy enhancers, obesity, and immune system function.

The functional foods and supplements market is in a permanent state of evolution as new sources of biodiversity are discovered and researched & new products in the pipeline are evaluated and developed by industry. The sector is fragmented and niche oriented and is heavily dependent on access to new knowledge & investment in innovation for growth, product differentiation and securing price premiums in increasingly low-volume, high-value markets.



DAY 1, December 8th

SESSION 1. To showcase the state of the art in Latin American R&D in the functional foods sector, experts will present latest findings on:

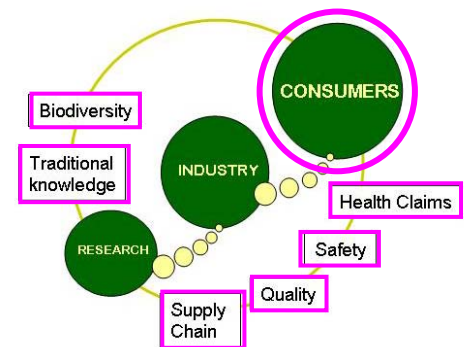
1. LAC research capabilities:
 - antioxidants
 - cholesterol lowering and antilipidemic foods and molecules
 - mood balancing foods and molecules
 - immune system and anti inflammatories
2. Research networking to pool resources, knowledge and skills
3. Critical assessment of needs – building capacities, finance, *in situ* & *ex situ* conservation
4. LAC entrepreneurial initiatives in functional foods – success stories and lessons learned

SESSION 2. To understand how European industry is responding to market forces, how it builds value, and how it foresees strategies to innovate on a tighter budget, industry experts will present their views on:

1. Functional drinks – the future of functional foods in Europe
2. The need for innovation "Beauty from within" and "mood food" – the facts behind the buzz words
3. Finding a balance between in-house research programs and accessing public sector expertise, the role of proprietary technologies
4. Building an effective technology transfer program – understanding the "disconnects", building bridges and maximising the value of fundamental science from academia
5. Building value – the role of clinical trials in building consumer confidence, supporting health claims and branding
6. The role of venture capital in driving health and wellness innovation

3. CONSUMER TRENDS & REGULATORY OVERSIGHT

Dominating the challenge for industry is the need to design product development pipelines which not only meet consumer needs, but also satisfy increasing regard for public scrutiny of social and environmental responsibility in the sustainable use of biodiversity. Overarching all of this, companies must navigate an increasingly complex web of national and international legislations that spans the entire value chain from sourcing of raw materials to marketing the finished product. The third session of Day 1 will focus on understanding the national and international regulations and legislations that industry and academia must take into consideration when designing research programs and product development pipelines.



DAY 1, December 8th

SESSION 3: To understand how consumer demands & concerns and national & international regulations impact the design of company strategy, experts will present their views on:

1. **Meeting the public expectations:** Balancing the demand for innovation with environmental and societal responsibilities – an industry perspective.
2. **Impact of the CBD on sustainable use of biodiversity.**
3. **European regulatory framework on safety, health claims and labelling.**
4. **The importance of clinical studies**
5. **Supply chain logistics**

4. AN ACTION PLAN FOR COOPERATION

DAY 2, December 9th

Introduction

Latin America is home to some of the major mega-bio diverse regions of the world of relatively unknown potential. Strategies for the sustainable use of this ethnobotanical heritage must consider as a key priority measures to conserve it. The oral and poster presentation of the first day of the workshop will have highlighted the key opportunities for establishing a bi-regional network of cooperation on functional foods derived from this source. Participants will also have a better understanding of the key challenges facing such an initiative. The second day of the workshop will be devoted to distilling this information into policy frameworks and research agendas for implementing this vision. The day will start with a keynote address from Diversitas (provisional), an International organisation committed to “*integrating biodiversity science for human wellbeing*”², to present how socially relevant knowledge can be used to support the sustainable use of biodiversity. This is a central concept that underpins the ethics of the proposed network of cooperation. Participants will then break into two working groups to build a consensus on the two major elements of the previous day’s presentations:

Working Group 1: Strengths, Weaknesses, Opportunities and Threats to bi-regional research cooperation – major themes:

1. research priorities;
2. research needs and how to address them;
3. challenges for cooperation and technology transfer;
4. the role of intellectual asset management (IAM) and how to build into research programs;
5. vehicles for communication – what to communicate, and what not;
6. access to new sources of funding; and,
7. roles of partners in a research cooperation network.

Working Group 2: Working with the challenges of national and international treaties and legislations – major themes:

1. the impact of the Convention on Biological Diversity (CBD) and relevance of the work with the objectives of CBD;
2. the specific impact of national legislation on access to genetic resources – is there an opportunity for regional harmonisation?
3. the concept of a bi-regional database and working group on regulations governing the sourcing , research and commercialisation of biological resources for functional foods;
4. the role of the network in European policy formulation; and,
5. are regulations in the field of functional foods, healthcare and wellness products beneficial to the sector?

The working groups will reconvene for a session to present and discuss the working group proposals, and the day will conclude with a panel debate to formulate the key elements of an action agenda.

² http://www.diversitas-international.org/uploads/File/annual_report_2007.pdf

5. ABOUT EULAFF & THE PARTNERS

EULAFF (<http://www.efb-central.org/eulaff>) is a project supported by the European Commission Directorate General for Research to promote cooperation between the functional food sectors in Europe and Latin America. The primary aim is to develop a food-chain innovation system for the identification and development of novel functional foods to sustain a bi-regional functional food sector. The specific goals of EULAFF are:

- Establish & promote collaboration between academic research organisations, industrial and private investment institutions to support a bi-regional functional food sector through the sustainable use of LAC biodiversity;
- Contribute to the sustainable development of marginal rural areas by strengthening production chains dedicated to the commercialisation of under-utilised crops with high nutritional and health-promoting potential;
- Promote technology and knowledge transfer, and develop appropriate intellectual property protection to meet niche market demands in global international trade.

To achieve these goals the project conducts multistakeholder debates, workshops & symposia in Europe and Latin America on the use of biological diversity with functional food potential and has developed a virtual networking system and on-line information resources to support collaboration efforts and sharing of knowledge.

The European Federation of Biotechnology (EFB: <http://efb-central.org>). Established by European scientists in 1978, EFB is Europe's non-profit federation of National Biotechnology Associations, Learned Societies, Universities, Scientific Institutes, Biotech Companies and individual biotechnologists working to promote biotechnology throughout Europe and beyond.

The mission of EFB is to promote the safe, sustainable and beneficial use of the life sciences, to promote research and innovation at the cutting edge of biotechnology, to provide a forum for interdisciplinary and international cooperation, to improve scientific education and to facilitate an informed dialogue between scientists and the public.

With 225 Institutional members from across Europe and 5,000 personal members from 56 countries, the EFB has 13 Regional Branch Offices in Europe to support its activities in the various areas of biotechnology covered by the Federation.

The Institute of Plant Biotechnology for Developing Countries (IPBO: www.ipbo.ugent.be) is an initiative of Em. Prof. Marc Van Montagu and Gent University, supported by the Flemish Government & pioneers in modern plant biotechnology. The mission of IPBO is:

- to strengthen training of plant biotechnologists and plant breeders in developing countries;
- to enable the implementation of science-based biosafety policies in developing countries;
- to act as a focal point and internode to promote and leverage outreach for the biotechnology platform of Europe to developing countries.

IPBO is an internationally recognised centre for training on plant biotechnology, biosafety and international regulations that govern the cultivation of genetically modified plants.

BioEuroLatina (www.bioeurolatina.org). Created in 2005, BIOEUROLATINA is a non for profit association with a scientific purpose, aimed at promoting technological and economic bi-regional development of biotechnology in Europe and Latin America. Its main objectives are to: a) Coordinate networking activities between the scientific community and the biotechnology enterprises of Europe and Latin America. b) Promote the scientific and technological development of the biotechnology sector in European and Latin American countries through technology transfer. c) Promote the creation of new alliances and partnerships between European and Latin American institutions, based on associative projects. The association's members are private persons, national associations, technical institutions, SMEs, biotech and financial firms. It has a head office located in Madrid (Spain) and nodal points in Europe (France and Belgium) and Latin America (Mexico, Peru and Argentina).

WORKSHOP DETAILS, DAY 1 - Het Pand, Gent, Belgium. 8th December 2008



Context

An increasingly health conscious public continues to demand functional food and supplements for personal healthcare. This trend is endorsed by the medical profession and is now a core component of mainstream society. Industry is responding by investment in R&D innovation and increasingly looking to source novel products from biodiversity.

Objectives

1. For European Industry to see first hand the wealth of R&D initiatives & entrepreneurial activities in the field of functional foods, healthcare and wellness products currently underway in LAC;
2. For LAC researchers and entrepreneurs to learn about the intricacies, opportunities and challenges presented by the European Market and to showcase their activities to European Industry;
3. To develop an Action Plan for increased cooperation between LAC research and European Industry

Highlights of this action plan are the sustainable use and conservation of LAC biodiversity for the benefit of consumers, industry, ethnobotanical knowledge and international research cooperation

Organising Committee

Mike May, IPBO, Belgium: mike.may@ugent.be

Christian Suojanen, EFB, Spain: Christian@efb-central.org

Javier Verastegui, BioEuroLatina, Peru: javier.verastegui@bioeurolatina.com

<http://www.efb-central.org/eulaff>

Time	Theme	Presenter
08.30 - 09.00	Registration	
09.00 - 09.30	Welcome, Introduction & Objectives	Marc Van Montagu (IPBO) Christian Suojanen (EFB) Mike May (IPBO) EU representative
09.30 - 10.15	Key Note: Food, health and the future	
10.15 - 10.40	Coffee Break	
	SESSION 1: State of the Art of Latin American R&D	
10.40 - 11.00	Antioxidants	
11.00 - 11.20	Cholesterol, lipid lowering	
11.20 - 11.40	Mood - balancing	
11.40 - 12.00	Immune system & anti-inflammatories	
12.00 - 12.20	Quinoa	
12.20 - 12.40	Networking and critical assessment of needs	
12.40 - 13.15	LAC Entrepreneurs, Panel Discussion	
13.15 - 14.15	Lunch	
	SESSION 2: European Functional food Industry Perspectives	
14.15 - 14.25	Functional Drinks	
14.25 - 14.45	The need for Innovation	
14.45 - 15.05	Accessing public sector expertise	
15.05 - 15.25	Building a technology transfer program	
15.25 - 15.45	Building value through clinical studies	
15.45 - 16.05	The role of venture capital	
16.05 - 16.30	Coffee Break	
	SESSION 3: Consumer demands & concerns, and the regulatory environment	
16.30 - 17.00	Meeting public expectations - an industry perspective	
17.00 - 17.30	Impact of the CBD on sustainable use of biodiversity	
17.30 - 18.00	European regulatory frameworks and their impact	
18.30	Reception	



WORKSHOP DETAILS, DAY 2 - Het Pand, Gent, Belgium. 9th December 2008

Time	Theme	Presenter
08.30 - 08.45	Welcome and objectives of the workshop	Mike May (IPBO)
08.45 – 09.30	Key Note: Science & Biodiversity	
09.30 – 10.00	Principle conclusions of the Forum – Discussion & Validation	
10.00 – 10.15	Introduction to Working Group 1: R&D agenda	
10.15 – 10.30	Introduction to Working Group 2: Policy framework	
10.30 – 11.00	Coffee	
11.00 – 13.00	Work by separate working groups	WG 1: WG 2:
13.00 – 14.00	Lunch	
14.00 – 16.00	Work by separate working groups	WG 1: WG 2:
16.00 – 16.30	Coffee	
16.30 – 17.00	Plenary Presentation of WG1 proposal + Discussion	
17.00 – 17.30	Plenary Presentation of WG2 proposal + Discussion	
17.30 – 18.15	Next Steps: Action Agenda	
18.15 – 18.30	Closure of the Workshop	
	Reception	