



Successful Biosafety Responses

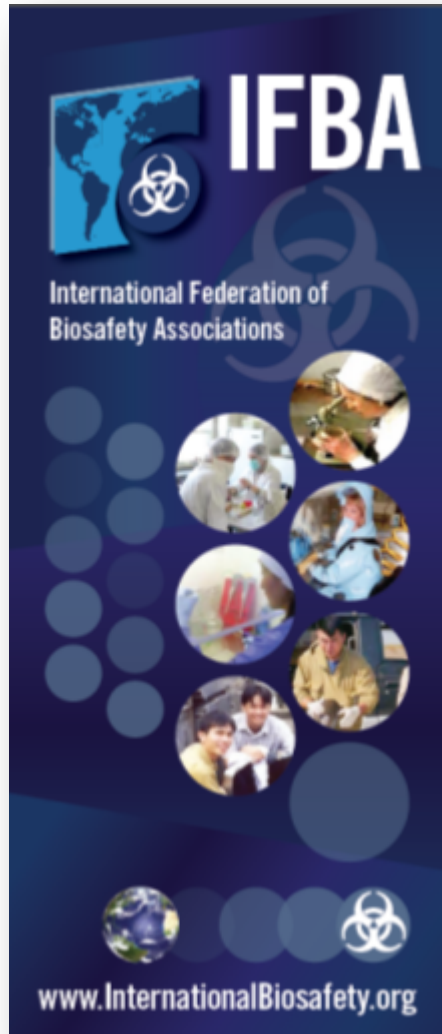
Lessons Learned from Biosafety Associations

M. Ellis

Executive Director

International Federation of Biosafety Associations

International Federation of Biosafety Associations



- International non-profit NGO with 36 national and regional Member Biosafety Associations worldwide *“Safe, Secure & Responsible Work with Biological Materials”*
- Implementing practical solutions to biosafety that are locally-driven, risk-based, cost-effective and sustainable over the long term



Our Global Biosafety Association Network

Biosafety professionals, scientists, lab technicians, doctors, veterinarians, academics, architects, engineers, lab managers, policy makers, government officials...

- Representing all regions of the world



Our Global Biosafety Association Network

- Among the most highly skilled and experienced entities
 - working on the ground & understand the local “realities”
- Complement and supplement the efforts of government and multilateral agencies
 - assist governments in developing & implementing biosafety policy
- Able to address “transnational” issues
 - Effect cross-border cooperation
- Implement innovative programming
 - Flexible and adaptable
 - Undertake projects with limited funding
 - More able to assume risks & work with some uncertainty



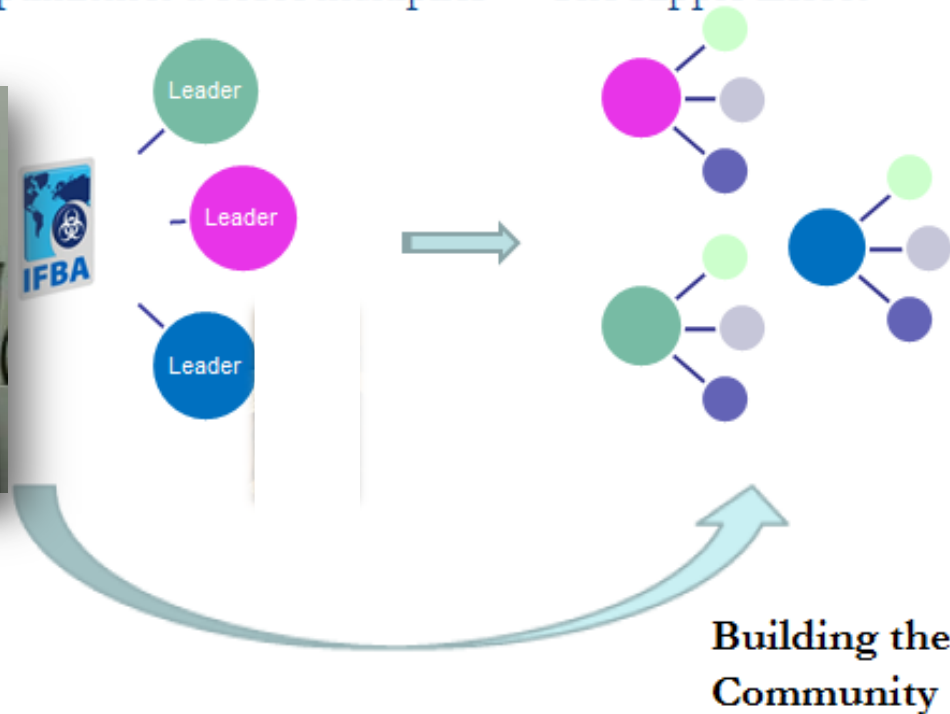
Mentoring Biosafety Professionals

- Associations are providing leadership, mentoring and nurturing local biosafety champions to build the community

- Perpetual optimism is a force multiplier – “The Ripple Effect”



**Champions
inspiring
leaders**



IFBA Biosafety Heroes Award

Biosafety Advocacy

- Clarify importance of biosafety in delivery of quality lab services
- How biosafety is vital to safety and security of laboratorians, scientists, general public
- Awareness of dedication, commitment & significant contributions by laboratory workers and biosafety professionals
- Need a compelling narrative with visual images to tell the biosafety story
 - Shine spotlight on lab workers and the challenges they face in low resource countries
 - Ebola outbreak was effective in communicating some of these messages but more work needs to be done in the area of biosafety advocacy



Biosafety Advocacy

Identify Champions to speak on our behalf

- Stephen Lewis, co-founder and co-director of AIDS-Free World
 - Former UN Secretary-General's Special Envoy for HIV/AIDS in Africa; Deputy Executive Director of UNICEF
 - stressed the centrality of biosafety to global public health & called for increased attention and resources
 - *“It will be an important breakthrough when it is unmistakably understood that HIV and the major diseases of the world cannot be handled without adequate biosafety and biosecurity measures in place”*



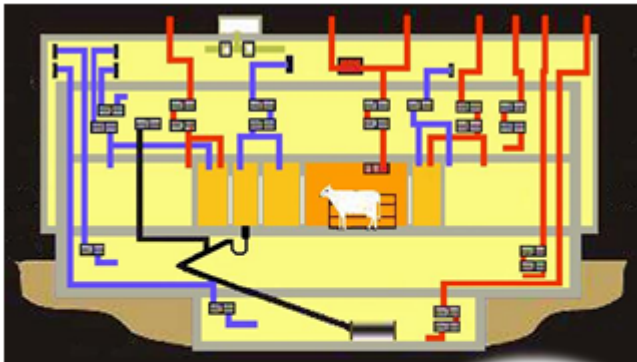
Addressing Laboratory Facility Challenges

- Cost pressures to build and maintain facilities
- Local unavailability of highly technical equipment
- Unreliable utilities
- Unfamiliarity of constructing and operating a highly complex laboratories



Addressing Laboratory Facility Challenges

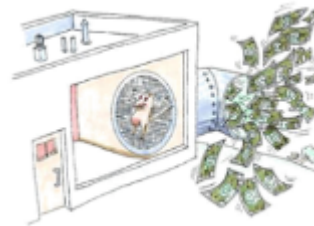
- Do not want to “overdesign” laboratory facilities



Don't build this.....



Big money....

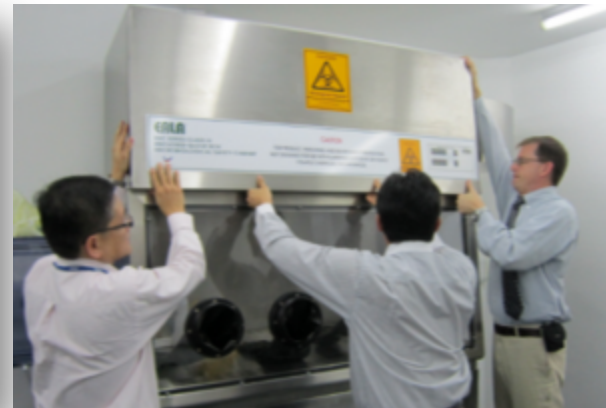


Pocket change....

When all you need is this

Biocontainment Engineering Working Group

- Risk-based practical solutions to laboratory infrastructure that can be cost-effectively sustained over the long term
- scientists, biosafety professionals, architects, engineers, facility maintenance staff, equipment manufacturers from around the world
 - Malaysia, Indonesia, India, Uganda, South Africa, Tanzania, Kyrgyz Republic, Switzerland, UK, Canada, US,



Risk-Based Approaches to Biocontainment

Does not prescribe specific BSL2 vs BSL3 requirements

- Scalable approach based on local risk assessment
- Balance between operational practices & engineering solutions
- Identify local solutions that are practical and can be cost-effectively sustained over the long term



BIO SAFETY ASSOCIATION FOR CENTRAL ASIA & THE CAUCASUS

3rd Annual Conference Of The Biosafety Association For Central Asia & The Caucasus
September 27-30, 2011
Holiday Inn, Tbilisi, Georgia

"BIO SAFETY AND BIO SECURITY IN THE REGION: WHAT WORKS AND WHAT DOESN'T"

In program:

- Risk assessment
- Legal and regulatory issues
- Sustainability
- Training and education

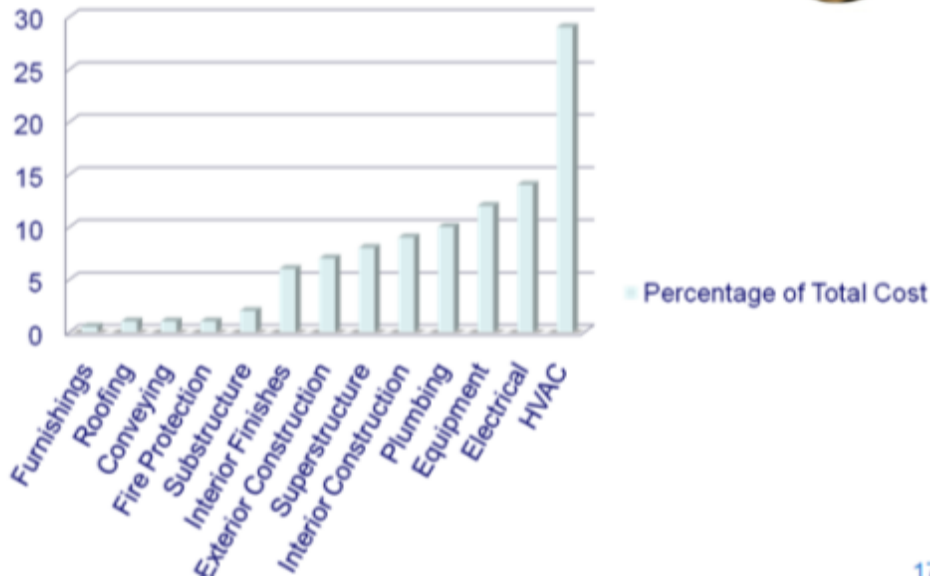
Pre-conference Workshops:

- Basic biosafety & biosecurity
- Training methodology and skills for adults training for biosafety trainers
- Proposal writing
- Occupational health & safety

FOR DETAILS AND REGISTRATION PLEASE VISIT WWW.BIAC.AC.ORG

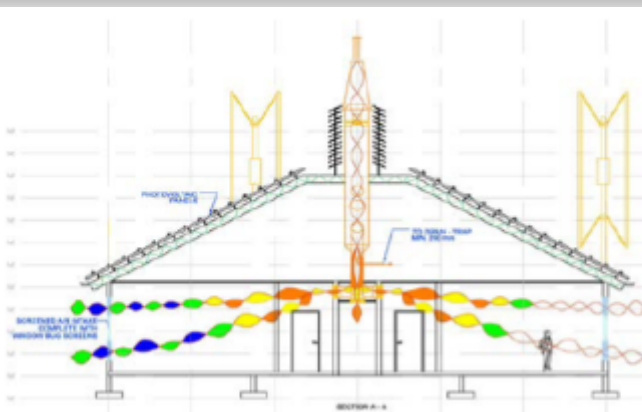
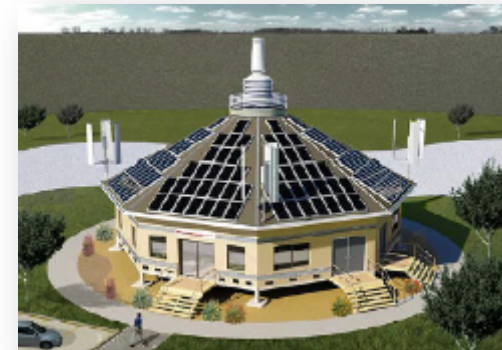
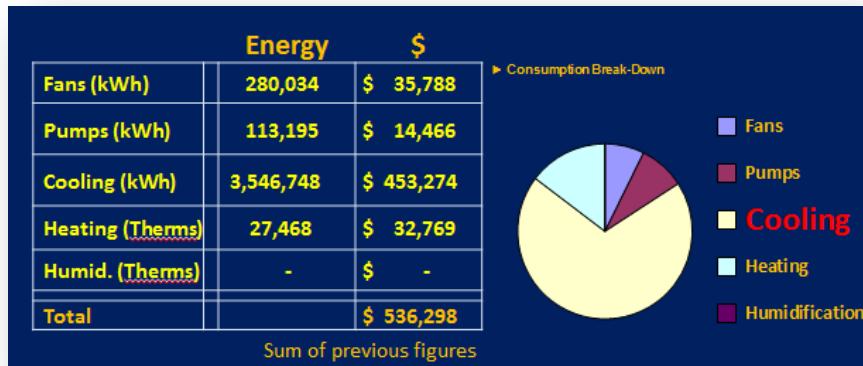
Risk Based Approaches to Biocontainment

- Where to save \$\$\$\$



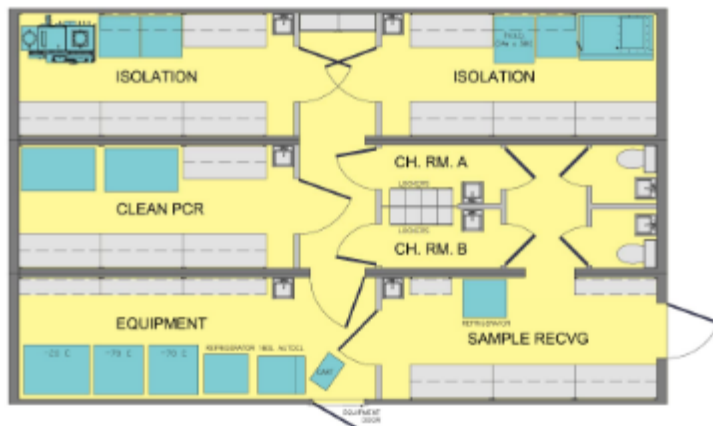
Where Else to Save \$\$\$

- Energy costs (e.g. cooling single pass air)
 - Considering recirculation, natural ventilation options



Partnerships with Private Industry

- Achieve innovative & sustainable solutions for laboratory design
- Modular approaches to labs



Modular laboratories for TB and BSL-2/3 Applications

Germfree, Nuaira and IFBA are working together to develop sustainable laboratory solutions to meet the most demanding global requirements. Germfree modular TB and BSL-2/3 labs are provided with primary and secondary containment equipment engineered to be energy efficient, durable and most important, locally certified and maintained.



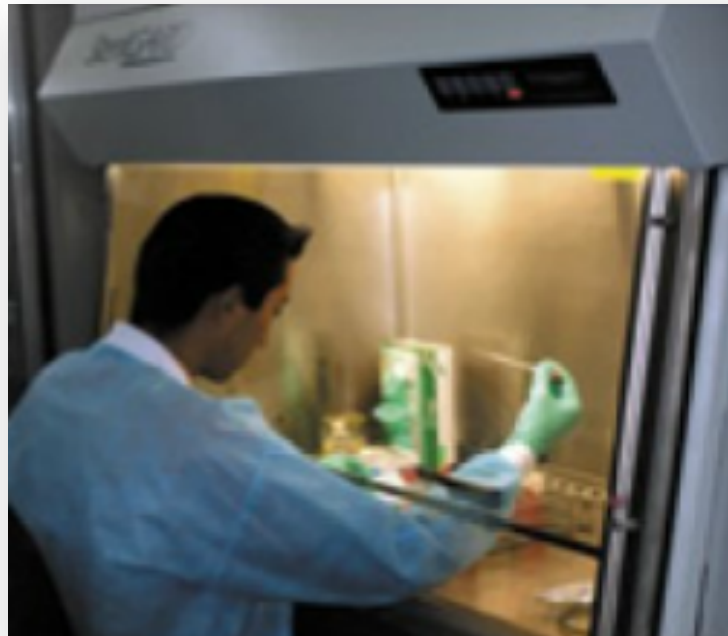
Visit us at www.GERMFREE.com to learn more.

Partnerships with Private Industry

- Locally practical and sustainable solutions for Biological Safety Cabinets
- Many laboratories around the world do not have access to expertise & equipment to certify biological safety cabinets



The infographic features the NuAire logo at the top left. The main text reads: "The IFBA and NuAire are working together to find simple, safe and workable solutions to improve global laboratory bio safety by educating laboratory technicians, scientists and maintenance personnel about Biological Safety Cabinets as a primary means of containment for working safely with infectious organisms." Below this text is a photograph of a Class II biological safety cabinet. To the right of the cabinet, a green-bordered box contains the text: "30% of Class II biological safety cabinets tested were poorly designed, installed incorrectly, not certified, or being operated incorrectly".

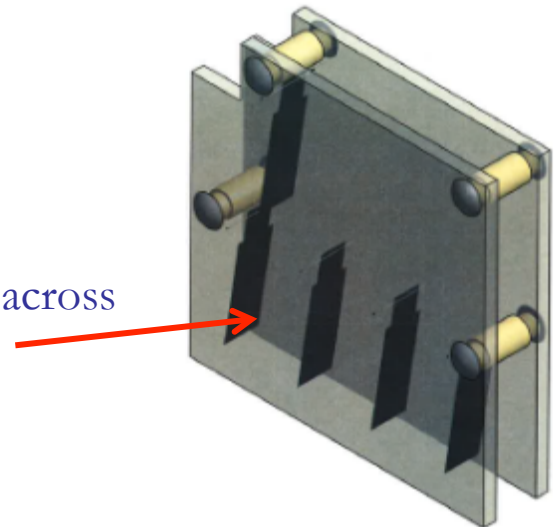


Functional BSC User Test

- Lack of access to expertise & expensive calibrated equipment for certification
- BEWG developing new user friendly functional user test to verify correct operation of critical elements of BSC (e.g. inward directional airflow)
- Prototype under development and will be tested by BEWG in Africa and Central Asia
- Simple pass/fail reading

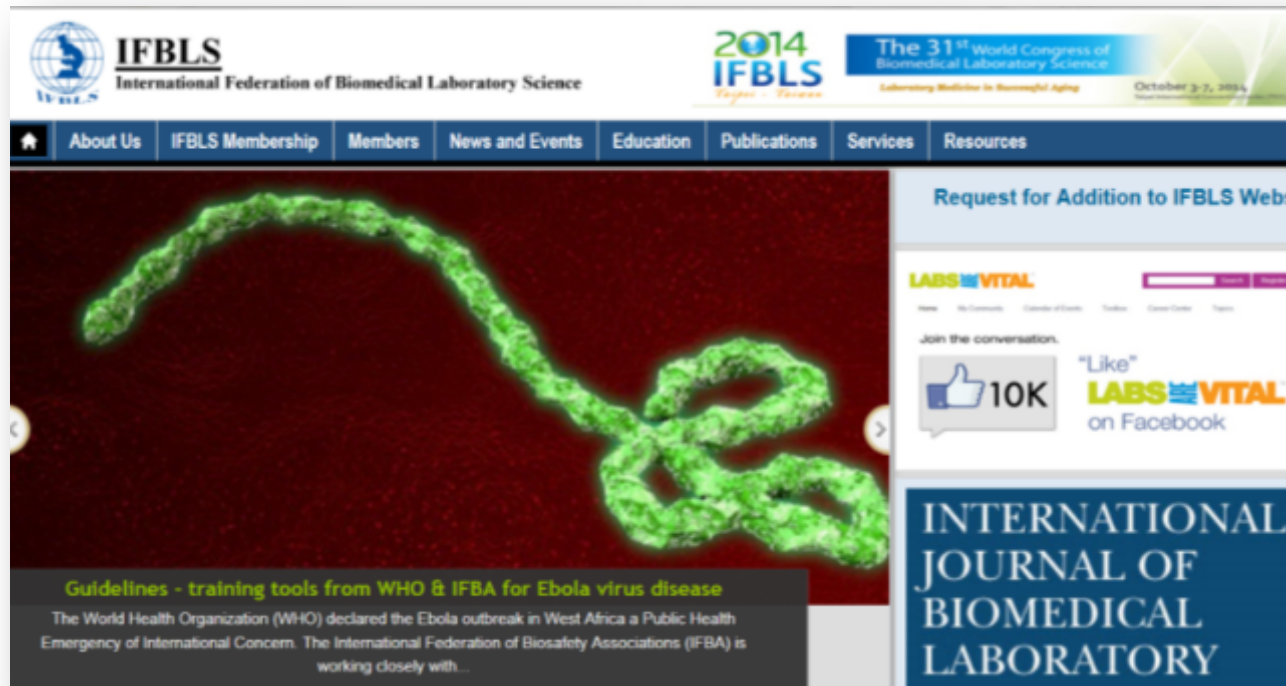


Vanes measure airflow across cabinet opening



Creating New Partnerships

- Laboratory technicians & biomedical scientists have a crucial role in biosafety for their institutions
- Established an MOU with IFBLS



The screenshot shows the homepage of the International Federation of Biomedical Laboratory Science (IFBLS). The header includes the IFBLS logo, the text "2014 IFBLS" with the tagline "Optimizing Biosafety", and information about "The 31st World Congress of Biomedical Laboratory Science" held in Bonn, Germany, from October 2-7, 2014. A navigation menu contains links for "About Us", "IFBLS Membership", "Members", "News and Events", "Education", "Publications", "Services", and "Resources". The main content area features a large image of a green, filamentous virus particle. Below this image is a text box titled "Guidelines - training tools from WHO & IFBA for Ebola virus disease", which states that the WHO declared the Ebola outbreak in West Africa a Public Health Emergency of International Concern and that IFBLS is working closely with... To the right of the virus image is a "Request for Addition to IFBLS Webs" section, which includes a search bar, a "Join the conversation" prompt, a "Like" button for "LABS VITAL on Facebook" (with a "10K" like count), and a "Like" button for "LABS VITAL on Facebook". At the bottom right, there is a blue box with the text "INTERNATIONAL JOURNAL OF BIOMEDICAL LABORATORY".

CamBSA & CAMELS

- Link IFBA local members with IFBLS local members
- Build biosafety capacity and enhance biosafety competencies within the global laboratory workforce



CamBSA - Cameroon Biological Safety Association
We are safer together...

Status Mission Organization Membership News Our contacts Members

CamBSA responds to the invitation from CAMELS

The **Cameroon Biological Safety Association** took part in the 11th National Scientific Conference of the **Cameroon Association of Medical Laboratory Science (CAMELS)** held in Bamenda, in the North West Region of Cameroon, on the 8th to the 9th November, 2013. The CamBSA was responding to the invitation from CAMELS to make presentations during the conference to sensitize participants on the concepts of biosafety and biosecurity in medical diagnostic laboratories.

The CamBSA's delegates at the conference were Mrs. Pierrette MEFOMDJO and Mrs. Seraphine ESEMU, President and Secretary of the Association respectively.



CamBSA is affiliate to:

- International Federation of Biosafety Associations
- BSA
- LANAVET

Creating New Partnerships

- IFBA joined the Stop TB Partnership
- Local national biosafety associations working with local Stop TB partners in the areas of TB Biosafety



Partner of the

Stop TB Partnership

Biosafety & Biorisk Management Competencies

- Depending on resources and availability of staff, biosafety services are provided by dedicated biosafety professional, or laboratory technician, scientist, trained to provide these services as part of their job
- In peripheral laboratories, often less capacity & support for dedicated biosafety professionals
- Resulting mix of skills and competencies in biosafety and biorisk management



IFBA Certification of Biosafety Professionals

- New certification program for laboratory workers & professionals engaged in biosafety & biosecurity activities
- Variety of technical disciplines
 - Biorisk Management, Biological Waste Management, Biosecurity, Biosafety Cabinets, Biocontainment Facilities



- 52 individuals have been issued *Professional Certification in Biorisk Management*, 30 more “in progress”
- 2 individuals have been issued *Professional Certification in Biological Waste Management*, 10 more “in progress”
- Representing 25 countries from around the world (South Asia, SE Asia, Central Asia, Africa, South America, Central America Europe...)



IFBA Certification Program

- Exams are being offered in conjunction with our Member's conferences and on-line for worldwide access



ASIA-PACIFIC BIOSAFETY ASSOCIATION (A-PBA)
10TH ANNUAL BIOSAFETY CONFERENCE
CO-ORGANIZER PHILIPPINE BIOSAFETY BIOSECURITY ASSOCIATION (PHBSA)

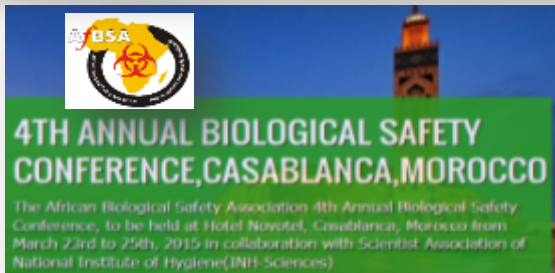
ASIA-PACIFIC BIOSAFETY - INTO A NEW ERA OF COLLECTIVE OWNERSHIP AND LEADERSHIP

CONFERENCE (23RD - 24TH JUNE 2015) | JPARK ISLAND RESORT & WATERPARK
PRE-CONFERENCE WORKSHOPS (23RD - 24TH JUNE 2015) | CEBU, PHILIPPINES



IX CONGRESSO BRASILEIRO DE BIOSSEGURANÇA
EXPOSIÇÃO DE EQUIPAMENTOS E DISPOSITIVOS DE BIOSSEGURANÇA

29/09 a 01/10 de 2015
Hotel Plaza São Rafael
Porto Alegre
Rio Grande do Sul, Brasil
Informações: congresso2015@anbio.org.br
www.anbio.org.br



BSA

4TH ANNUAL BIOLOGICAL SAFETY CONFERENCE, CASABLANCA, MOROCCO

The African Biological Safety Association 4th Annual Biological Safety Conference, to be held at Hotel Novotel, Casablanca, Morocco from March 23rd to 25th, 2015 in collaboration with Scientist Association of National Institute of Hygiene (INH Sciences)



European BioSafety Association

EBSA

21 - 24 APRIL 2015
AUSTRIA CENTER VIENNA / AUSTRIA

18th Annual Conference of the European BioSafety Association



ABSANT

Association of Biosafety for Australia & New Zealand
4th Annual Conference
3 - 7 November 2014
Sofitel Sydney Wentworth



7 SIMPOSIO INTERNACIONAL DE BIOSSEGURIDAD Y BIOCUSTODIA
Enfermedades Emergentes y Reemergentes

Del 3 al 6 de junio de 2015

Cursos y Conferencias

- *"Biosseguridade e Patógenos Emergentes"
- *"Medicamentos Cebados e seu Manejo"
- *"Plan de Resposta ante la emergencia y reemergencia de enfermedades"
- *"Usamientos para la Gestión del Riesgo Biológico en México"
- *"Bioética e Biosseguridade"

SIBB15

AMEXBIO
Associação Brasileira de Biossegurança e Biotecnologia

Para más información, acceder a la página www.amexbio.org/SIBB15
Contacto: Gullermo Villalón
gullerovill@amexbio.org
www.amexbio.org
Tel: +52 55 52 51 46 61

Towards a New Era of Biosafety

- Our community is interacting, has built a collective knowledge base & learned how to “do biosafety better”
- Collectively, we’ve developed **better** approaches to biosafety issues
 - Shift from once dominant knowledge-based profession towards a risk-based approach to biosafety
 - Require individuals to make sound judgements to meet local needs of ever-changing workplace
 - Focus on applying knowledge in new situations, effective problem-solving, mindset of inquiry
- Critical thinking & ingenuity leads to affordable, sustainable, effective biosafety solutions



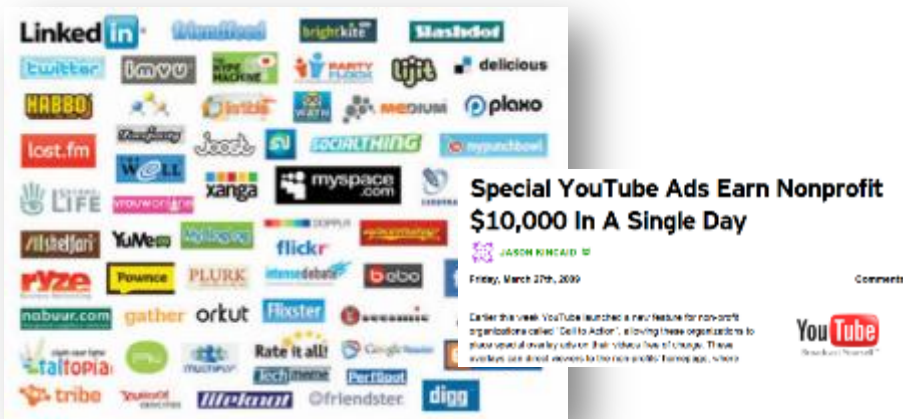
Towards a New Era of Biosafety

- Embed critical thinking skills in our approach to teaching biosafety
- Present subject matter in the context of a problem or issue
 - option of offering a judgement or assessment of possible solutions, determining which would be the better choice (more wiser, justifiable, sustainable, risk-based, cost-effective)
- “higher-level” learning & NOT memorizing and recall of information



Towards a New Era of Biosafety

- Need to develop powerful messages to tell the biosafety story
- Make the cause “tangible”
 - Why is this important?
 - Why should I get involved?
 - How can I get involved?
- Integrate social media, compelling videos



Find people who encapsulate what your core objective is all about — and convey their stories with power, genuineness, passion and humility