

GIES 2007 – Session 1

“Information & Knowledge Infrastructure for Collaboration & Innovation”

“Scientists Without Borders”

Creating an Information Commons to Drive Innovation for Global Sustainability

**Ellis Rubinstein, President & CEO
The New York Academy of Sciences**

The Plan for this Presentation

- **What is The New York Academy of Sciences?**
- **Where did the idea come from to create an “innovation ecosystem” for Africa?**
- **What is “Scientists Without Borders” and how is it being developed?**



Scientists
Without Borders

a program of



The New York
Academy of Sciences

Part One:

The New York Academy of Sciences

The Unique & Dualistic Nature of the Academy

The only Academy that is not an Academy.

- **It has always been a home for the elite in science...BUT**
- **From the beginning, all those interested in science were welcomed.**

The only local Academy that became global.

- **It was born as an institution OF the City of New York ...BUT**
- **Non-New Yorkers like President Jefferson and Europe's Charles Darwin and Louis Pasteur joined it.**

SELECTED HISTORICAL EVENTS

1817: Samuel Mitchill founds NYAS

1823: First *Annals* is published

1887: Academy partners with *Science* Magazine

1909: Charles Darwin centennial symposium

1946: 1st conference on antibiotics

1972: Landmark Women in Science mtg.

1983: 1st conference on AIDS

2003: 1st multidisciplinary SARS mtg.

2007: Launches Scientists Without Borders



History of Prominent Members

- **Jefferson**
- **Monroe**
- **Audubon**
- **Darwin**
- **Pasteur**
- **Dewitt Clinton**
- **Edison**
- **Bell**
- **Huxley**
- **Mead**
- **Skinner**
- **Pauling**
- **Einstein**
- **Crick & Watson**



Today: The President's Council

NOBELISTS

- Axel
- Baltimore
- Berg
- Blobel
- Brenner
- Brown
- Buck
- Cech
- Doherty
- Fisher
- Goldstein
- Greengard
- Kandel
- Lederberg
- Lederman
- MacKinnon
- Nurse
- Richardson
- Rowland
- Samuelsson
- Sharp
- Varmus
- Wiesel
- Wilczek

OTHERS

- Baulieu, Past President, French Academy of Sciences
- Blavatnik, CEO, Access Industries
- Brechot, Director General, INSERM
- Conway, Chief Scientist, UK Dept. Internat'l Development
- Garnier, CEO, GlaxoSmithKline
- Gruss, President, Max-Planck
- Kurokawa, Science Advisor to Japan's Prime Minister
- Niblack, former Pres., Global Research, Pfizer
- Sigal, Chief Scientific Officer, BMS
- Ringrose, Chairman, BBSRC, UK
- Tilghman, President, Princeton
- Walsh, EVP, Research, Wyeth
- Whitehead, former co-chair, Goldman Sachs
- Winnacker, President, DFG & ERC
- Zhou, Chairman, China Ass. Sci. & Tech .



The NYAS as a Global Academy:

MEMBERSHIP FACTS

>25,000 in 140 countries

44% in NYC

33% in U.S. but outside NYC

23% outside U.S.

WEB USAGE

Unique visitors per month: ~150,000

Est'd annual unique visitors: ~1,000,000

Alliances

Academia -- Selected

Cold Spring Harbor	NYU
Columbia	Ohio State
Cornell	Princeton
CUNY	Rockefeller
Einstein	Rutgers
Fox Chase	Stanford
Hong Kong	SUNY
Hallym	Sydney
Karolinska	UC, Berkeley
Miami	UC, San Francisco
Mount Sinai	UMDNJ
MSKCC	Yale

Alliances – Selected Corporate

Major Alliances

Affymetrix
Alexandria Real Estate Equities
Boehringer-Ingelheim
Bristol-Myers Squibb
GlaxoSmithKline
Johnson & Johnson
L'Oreal
Merck
Novo Nordisk
OSI
Pfizer
Roche
Wyeth

Other

IBM
Microsoft
Nature
New Scientist
Scientific American
Schering-Plough

Sampling of Other Supporters

AstraZeneca	Advent Venture P's
Barr Pharma	Atlas Venture
BASF	Baker Botts
Cognis	Biogen
Conn. CURE	Boston Consulting
Ely Lilly	Burrill
Eyetechn	CB Richard Ellis
Genentech	Heller Ehrman
Imclone	Intracellular Therapies
Lundbeck	Morgan Stanley
Novartis	Perseus Soros
Olympus	Royalty Pharma
Physiome Sciences	Simpson Thacher
Quintiles	Tishman Speyer
Regeneron	UBS
Sonofi	Wachtell Lipton
John Wiley & Sons	Warburg Pincus

Selected Global Partnerships

- **Nobel Foundation**
- **United Nations Millennium Project**
- **Science Council of Japan**
- **China Academy of Sciences**
- **Deutsche Forschungsgemeinschaft**
- **UK Medical Research Council**
- **Third World Academy of Sciences**
- **Biovision (Lyon, France)**
- **BioVision Alexandria (Egypt)**
- **EuroBio 2006 (Paris)**
- **European Federation of Biotechnology**
- **International AIDS Vaccines Initiative**
- **Global Alliance for TB Drug Development**

Special Strengths of the NYAS

- Distinguished members
- Global membership
- Powerful alliances
- Multidisciplinary nature
- Excellence in convening – >100 events per year
- Innovative Web-based disseminator
- Neutral ground for competing institutions
- Coalition builder

NYAS Mission

The New York Academy of Sciences:

- **advances scientific knowledge,**
- **helps resolve the major science-based global challenges, and**
- **increases the number of scientifically informed individuals.**

Part Two:

The Etiology of the Idea

Needs

- **Integration**
- **Bridges (Coalition-Building)**

Partial Answers

- **Multiplicity of Actors**
- **Technological & Strategic Multipliers**

Needs

- **Science-based**
- **Logistical**
- **Political**
- **Capacity-building**

Partial Answers

- **NGOs – Oxfam, Project Hope, etc.**
- **Foundations – Gates, Rockefeller**
- **Corporations – Merck, BMS, GSK, Novartis, Pfizer BD, TNT, Sumitomo, Pepsi**
- **Universities – Baylor, Weill-Cornell, London School of Hygiene and Tropical Medicine**
- **Research Institutions – Wellcome Trust, Pasteur, DFG**
- **Academies – Third World Academy, African Academy, Chinese Academy**
- **Governmental Agencies – JICA, UNDP, Unicef, PEPFAR, DFID**
- **Public/Private Partnerships – IAVI, GATBDD, Malaria No More, Business Coalition**
- **Indigenous Institutions – Government Agencies, Universities, Companies (Mining, etc.)**

Multipliers

Technological

- **Google Earth**
- **Wikipedia**
- **eBay**
- **Scientists Without Borders**

Strategic

- **Gates Foundation**
- **Clinton Global Initiative**
- **Touch Foundation**
- **Earth Institute/Millennium Promise**
- **Scientists Without Borders**

Places

My Places

☒ Sightseeing

Start your Google Earth world tour here!

Click on an underlined

☒ [Google Campus](#)

Google's Mountain View, California Campus is one of several corporate

☒ [Grand Canyon](#)

Double-click on "Colorado River View" to enter the

☒ [Colorado River View](#)

Depress the left mouse button and move the mouse to explore the

☒ [Mount Saint Helens](#)

☒ [Chicago River](#)

Layers

Layers

☒ terrain

☒ Geographic Web

☐ Featured Content

☐ Global Awareness

☐ roads

☐ 3D Buildings

☐ borders

☒ Populated Places

☐ Alternative Place Names

☐ Dining

☐ Lodging


☐ Google Earth Community

☐ Shopping and Services

☐ Transportation



Wikipedia



WIKIPEDIA
The Free Encyclopedia

navigation

- Main page
- Contents
- Featured content
- Recent changes
- Random article

interaction

- About Wikipedia
- Community portal
- File upload wizard
- Contact us
- Make a donation
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search

toolbox

- What links here
- Related changes
- Upload file
- Special pages
- Printable version
- Permanent link

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- العربية
- Bahasa Indonesia
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- Català
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- Česky
- Dansk
- Deutsch

[main page](#) [discussion](#) [view source](#) [history](#)

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Today's featured article

Final Fantasy VI is a console role-playing game developed and published by **Square** (now **Square Enix**) in 1994. The game initially appeared on the Super Nintendo Entertainment System and has since been ported by TOSE with minor differences to the Sony PlayStation and the Nintendo Game Boy Advance. It was first released in North America as *Final Fantasy III*, although the original title has been restored in later releases. The game's story focuses on a group of **rebels** as they seek to overthrow an imperial dictatorship. *Final Fantasy VI* was the first game in the series to be directed by someone other than producer and series creator Hironobu Sakaguchi; the role was filled instead by Yoshinori Kitase and Hiroyuki Ito. Originally released to significant critical acclaim, it is still regarded as a landmark of the series and of the role-playing genre. It had a significantly greater number of battle customization options than its predecessors and the largest playable cast in the *Final Fantasy* series to date, excluding spin-off titles. It remains widely praised for its storyline, characters and non-linear style of play. [\(more...\)](#)

Recently featured: [Hippocrates](#) – [History of Puerto Rico](#) – [Norwich City F.C.](#)

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Did you know...

From Wikipedia's newest articles:

- ...that the anticancer agent **Salinosporamide A** *(skeletal formula pictured)*, which recently entered *clinical trials*, is produced by marine sediment-dwelling bacteria?
- ...that sports agent **David Falk** represented **Michael Jordan** for the whole of the player's career?
- ...that **Joseph Bowman** was the only American officer killed during George Rogers Clark's campaign to capture the Illinois Country in the American Revolutionary War?
- ...that in 1995, Texas Instruments **became the first multinational** to set up base in **Bangalore**?
- ...that **E.E. Roberts** Oak Park, Illinois architecture firm rivaled the studio of fellow architect Frank Lloyd Wright?
- ...that a man was crushed to death during the construction of the **Old Supreme Court Chamber** in the **United States Capitol**?
- ...that **Don White** was the first ever coach of the England national rugby union team?

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[Contents](#) • [Categories](#) • [Featured content](#) • [A–Z index](#)

In the news

- The centre-right **Union for a Popular Movement**, party of French President Nicolas Sarkozy *(pictured)*, retains a majority in the **National Assembly** despite losses in the **legislative elections**.
- Argentine golfer Angel Cabrera wins the **2007 U.S. Open Championship**.
- Topua Tamasese Tufuga Efi** is elected as the new **O le Ao o le Malo** (Head of State) of Samoa.
- The San Antonio Spurs defeat the Cleveland Cavaliers, four games to none, to win the **2007 National Basketball Association Finals**.
- Hamas **takes control** of the Gaza Strip, causing Palestinian President Mahmoud Abbas to dissolve the current unity government and declare a state of emergency.
- Shimon Peres** is elected **President of Israel** after both of his opponents withdraw before the second round of voting.

[Wikinews](#) – [Recent deaths](#) – [More current events...](#)

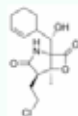
On this day...

June 20: World Refugee Day, Flag Day in Argentina (since 1938); **West Virginia Day** in the U.S. state of West Virginia.

- 451 - The **Battle of Chalons** against Attila the Hun is the last major battle of the Western Roman Empire.
- 1756 - A garrison of the **British army** in India was imprisoned in the **Black Hole of Calcutta**.
- 1789 - 577 deputies of the French National Assembly took the **Tennis Court Oath**, starting the **French Revolution**.
- 1837 - **Queen Victoria** *(pictured)* succeeded to the British throne.
- 1973 - **Snipers fired into a crowd** of Peronists near the Ezeiza Airport in Buenos Aires, Argentina, killing at least 13 people and injuring 365 others.

Recent days: [June 19](#) – [June 18](#) – [June 17](#)

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Part Three:

“Scientists Without Borders”


**Scientists
Without Borders**

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[HOME](#) | [NEWS](#) | [RESOURCES](#) | [ORGANIZATIONS, PROJECTS, PEOPLE](#) | [COMMUNITY](#)

New members of the Community

- ORGANIZATION:**
Medicines for Malaria Venture
 Geneva, Switzerland
- PROJECT:**
Kitui Water and Sanitation Project
 Kitui District, Kenya
- PERSON:**
Gracian Chimwaza
Information Training and Outreach Centre for Africa
 Harare, Zimbabwe
- ORGANIZATION:**
Medicines for Malaria Venture
 Geneva, Switzerland

Kitui Water & Sanitation Project

Kitui District, Kenya

[View Project](#)



JOIN THE COMMUNITY

Add your organization, project, or bio

FIND YOUR MATCH

Locate what you need
Offer what you have

GLOBE TREKKER

Lorem ipsum dolor sit amet, consectetur

WHAT'S AVAILABLE

- Soil analysis
- Hydroelectric power expertise
- Editing services
- Anesthesia equipment
- Taxonomy expertise
- Shared office space
- Electron microscopy
- Bicycles
- IT support
- Fertilizer

[EXPLORE AVAILABLE RESOURCES >](#)

WHAT'S NEEDED

- Biochemistry instructor
- Clinical laboratory services
- Mosquito netting
- Collaborators bird biodiversity
- Agricultural pest control expertise
- Share hood-certification technician
- HIV+ blood samples
- Translator
- Reverse osmosis setup
- Aquaculture pathogen expertise

[EXPLORE NEEDED RESOURCES >](#)

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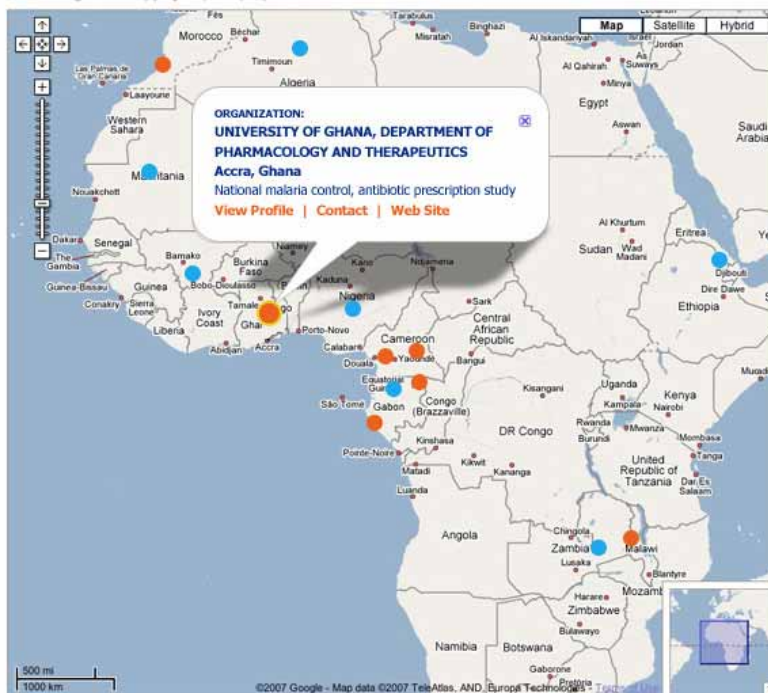
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RESOURCES

Home > Resources > Reverse Osmosis Setup

RESOURCE SELECTED: Drug-resistance expertise

Browse organizations, projects, and people with this resource.



« RETURN TO LIST

People, projects, and organizations that **need this resource** also need...

1. Genotyping assistance
2. Insect specimens
3. Reagents
4. Centrifuge
5. Drug registration advice

People, projects, and organizations that **have this resource** also have...

1. Microbiology instructor
2. Genotyping expertise
3. Share chemical ordering
4. Tissue culture capability
5. English teacher

- NEEDED
- AVAILABLE

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HOME

NEWS

RESOURCES

ORGANIZATIONS, PROJECTS & PEOPLE

COMMUNITY

GO



Coordinate science-based activities that improve quality of life in the developing world.

JOIN THE COMMUNITY

Add your organization, project, or bio

GO

FIND YOUR MATCH

Locate what you need
Offer what you have

GO

GLOBE TREKKER

GO

What's Needed

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[Explore needed resources >](#)

What's Available

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[Explore available resources >](#)

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RESOURCES

Browse the list of resources needed and available in the community.

1-25 of 3,278

PAGE 1 2 3 4 NEXT »

- Practical trainers
- Editing services
- Expertise on a certain laboratory technique
- Information technology support
- ● Taxonomy expertise
- Translators
- ● Microbial typing
- Chemical analysis
- Genotyping
- Soil analysis
- Spectrophotometer
- ● Reverse osmosis setup
- Test kits
- ● Chemicals
- Reagents
- Cold storage
- Microscope
- Hood
- ● Soil
- Water
- ● Particular insects/plants/birds
- Taxonomy expertise
- Translators

- Reagents
- Shipping
- Computing power
- ● Instructors
- Practical trainers
- Editing services
- Information technology support
- Taxonomy expertise
- Translators
- Microbial typing
- ● Chemical analysis
- Genotyping
- ● Soil analysis
- Spectrophotometer
- Reverse osmosis setup
- Test kits
- Chemicals
- ● Cold storage
- Reagents
- ● Shipping
- Computing power
- Instructors
- Practical trainers

● NEEDED

● AVAILABLE

PAGE 1 2 3 4 NEXT »

REFINE RESULTS

CATEGORY:

[SHOWING ALL](#)

[CHANGE](#)

REGION/COUNTRY:

[SHOWING ALL](#)

[CHANGE](#)

AREA OF EXPERTISE:

[SHOWING ALL](#)

[CHANGE](#)

NEEDED/AVAILABLE:

[SHOWING ALL](#)

[CHANGE](#)

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Part Four:

Building the Initiative

Business Development

- **Funding**
- **“Marketing”**

Creative Development

- **Content**
- **Phasing**

Global Partnership

**Medical Research Council of the
United Kingdom**

**Deutsche
Forschungsgemeinschaft**

Institut Pasteur

Science Council of Japan

Chinese Academy of Science

Duke University Health System

**International AIDS Vaccine
Initiative**

**Global Alliance for TB Drug
Development**

**National Council for Women,
Egypt**

**Academy of Sciences for the
Developing World**

**Earth Institute at Columbia
University**

**African Centre for Technology
Studies**

Scientists Without Borders Advisory Council

Seth Berkley, President and CEO of the International AIDS Vaccine Initiative

Zhu Chen, Vice President of the Chinese Academy of Sciences

Alice Dautry, Director General of the Pasteur Institute

Victor Dzau, Chancellor for Health Affairs and President and CEO of the Duke University Health System

Maria Freire, President and CEO of the Global Alliance for TB Drug Development

Farkhonda Hassan, Secretary-General of the National Council for Women, Egypt

Mohamed H. A. Hassan, Executive Director of the Academy of Sciences for the Developing World

Kiyoshi Kurokawa, Science Advisor to the Prime Minister of Japan

Jeffrey Sachs, Special Advisor to the United Nations on the Millennium Development Goals and Director of the Earth Institute at Columbia University

Eugene Terry, Former Director General of the West Africa Rice Development Association

Judi Wakhungu, Executive Director of the African Centre for Technology Studies

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