



BIOAGENDA 2006 SUMMIT

MARCH 8 - 10, 2006

LA QUINTA RESORT & CLUB • PALM SPRINGS, CA

SUMMIT PROGRAM

Let us astound you, provoke you and make you think... The BioAgenda 2006 Summit is a two-and-a-half day gathering of key scientists, entrepreneurs, thinkers, policy makers, advocacy groups, critics and media to interact and discuss crucial issues for the coming year in biotech and life sciences.

The summit is a forum to discuss, analyze and act... to share ideas that work and don't work; to deliver insights, hopes and fears; to offer steps to move us forward with the promise of new discoveries while taking care that we do it safely and with an understanding of differing points of view.

The program was developed by David Ewing Duncan, BioAgenda Editorial Director, in consultation with the BioAgenda Council of Journalists, and expert input from the BioAgenda Board of Advisors

Most speakers are confirmed, a few are invited and likely to come; the program is subject to change.

"I believe this is the greatest story of our time, perhaps of all time. A species is developing the tools to redesign itself, to self-evolve in a way Charles Darwin never imagined."

David Ewing Duncan, Founder, BioAgenda and Summit Host; from his book "The Geneticist Who Played Hoops With My DNA"

WEDNESDAY, MARCH 8, 2006 – DAY ONE, ARRIVAL

AFTERNOON: ARRIVAL

6:00 pm • BioAgenda 2006 Summit Opens

Welcome by David Ewing Duncan, BioAgenda Founder and Editorial Director; David will explain the topics to be covered at the summit, and how and why they were chosen as the most pressing issues of the year.

6:15 pm • Theatrical Performance

Starring: Anna Devere Smith, Actress, *The West Wing*; MacArthur Award Winner; other actors TBA

BioAgenda and the Magic Theatre of San Francisco present a program of theatrical presentations with themes emphasizing genetics and science, **starring major Hollywood actors**. The offerings are selected and directed by **Chris Smith**, Artistic Director of the internationally renowned **Magic Theatre**. The Magic is a non-profit theater company with a 38-year history of producing and developing new works, including resident playwrights **Sam Shepard, David Mamet, Rebecca Gilman** and many others. Website: www.magictheatre.org

Co-Producer: Magic Theatre, and the Alfred P. Sloan Foundation

**7:45 pm • Cocktail and Light Dinner Reception
Visual Exhibit on the Theme of Science and Ideology**

Details to be announced.

**8:30 pm • Panel Discussion on the Conflict of Ideology,
Science and the Arts**

In the Renaissance, the three elemental forces of ideology, science and the arts combined in the works of Raphael, Leonardo, Michelangelo and others. Five-hundred years later, what does art now have to say about the current love-hate relationship between science and ideology?

Moderator: **Tiffany Schlain**, Emmy-award winning filmmaker, founder of the Webby Awards

Baroness Susan Greenfield, PhD, Professor, Oxford University; Director, The Royal Institute of Great Britain; Author and Television Presenter
Richard Rhodes, Author, *The Making of the Atomic Bomb*; Pulitzer Prize Winner
Chris Smith, Director, The Magic Theatre; former Program Director, Science in Theater Program, The Sloan Foundation
Leonard Schlain, MD, Associate Professor, UCSF; Author
Cynthia Schneider, PhD, Art Historian; former U.S. Ambassador; Distinguished Professor, Georgetown University
Anna Devere Smith, Actress, *The West Wing*; MacArthur Award Winner; Professor of the Arts, Stanford

THURSDAY, MARCH 9, 2006 – DAY TWO

ALL DAY: INTERACTIVE DEMONSTRATIONS

We are working on getting interactive exhibits that include the U.S. Army's exo-skeleton sensor suit; Georgia State University's electrode cap that allows the wearer to move a computer cursor with thought; Brainball, a game that is played using thought to manipulate a ball; the Woods Hole Institute's ocean-bottom microbe project; and much more.

MORNING SESSION

7:00 am • BREAKFAST

7:45 am • Welcome

Brief Remarks by David Ewing Duncan, BioAgenda 2006 Summit Host

7:50 am • Fireside Chat: On Life Sciences Policy

A discussion with a seminal figure in genetics about the current status of life sciences issues, in conversation with host David Ewing Duncan

Sydney Brenner, PhD, Distinguished Research Professor of Biology, Salk Institute; Nobel Laureate

8:30 am • TOPIC: Darwin vs. God

Why do so many people not believe in evolution? Can ideology and science be compatible?

Moderator: **Robe wich**, ABC News

Paul Berg, PhD, Professor, Stanford; Nobel Laureate

Richard Dawkins, PhD, Author and Professor, Oxford University

William Hurlbut, MD, Bioethicist, Consulting Professor, Stanford University; member of the President's Council on Bioethics

Religious Leader TBA

9:35 am • BioAgenda 2006 Innovator

David Sinclair, PhD, Associate Professor of Pathology, Harvard Medical School

"The role of Resveritrol (from red wine) in extending lifespan"

BioAgenda Innovators presented by **Nathaniel David**, PhD, CSO, AESTHERx

10:00 am • BREAK

10:25 am • TOPIC: Drug Pricing

Do drugs cost too much? Are there other ways to pay for drugs? Can we afford medical miracles? Can the system for developing drugs be improved and made less expensive? An interactive discussion and homework assignment.

Part I: Overview

Presented by moderator Greg Simon, President of Faster Cures; former advisor to Vice President Al Gore

Part II: Panel Discussion

Moderator: **Greg Simon**, President of Faster Cures, former advisor to Vice President Al Gore

Joshua Boger, PhD, Founder and CEO, Vertex Pharmaceuticals

Merrill Goozner, Author, *The \$800 Million Pill: The Truth Behind the Cost of Drugs*; Director, The Center for Science in the Public Interest

Paul Herrling, PhD, Head of Corporate Research, Novartis

Mark McClellan, MD, PhD, Administrator, Center for Medicare and Medicaid Services

Deborah Ortiz, California State Senator; Chair, Health and Human Services Committee

Marie Smith, President, American Association for Retired People

Co-Organized by Faster Cures and the Milken Foundation

11:40 • TOPIC: Chimeras and Synthetic Life

100-Watt Bugs and Flying Mice: What Are We Creating, Who Should Own It, and Should We Ever Say No?

Moderator: **Joel Garreau**, Editor, Washington Post, Author of *Radical Evolution*

Steven H. Holtzman, CEO and Co-founder, Infinity Pharmaceuticals

Bill McKibben, Author of *Enough*; Pulitzer Prize Winner

Gregory Stock, PhD, Director, Program on Medicine, Technology and Society, UCLA

J. Craig Venter, PhD, President, J. Craig Venter Institute

Harold Greely, PhD, Professor of Law, Stanford

Cynthia Kenyon, PhD, Professor, UC San Francisco

Co-Organized by UCLA's Program on Medicine, Technology and Society

12:45 pm • Lunch

AFTERNOON SESSION

2:15 pm • BioAgenda Challenge

A prominent leader in or out of life sciences issues a challenge to a particular community (academia, congress, business) about an issue the issuer feels needs to be reformed – and offers an innovative idea for accomplishing reform.

Frederick Frank, Vice Chairman, Lehman Brothers

Challenge: “To overhaul the business model of pharma”

Audience responds.

A copy of the challenge will be issued at the end of the session in which it is delivered; the issuer will be available for further discussion during cocktails at 6:30 pm.

2:40 pm • TOPIC: Is Big Pharma Dying?

Big Pharma and the Dodo: Evolve or Perish; and The Case for \$200 Million Drugs, Globalism and Ethics

Moderator: **Cynthia Robbins-Roth**, PhD, author, journalist and founder of BioVenture Publishing Inc and BioVenture Consultants

Jean-Francois Formela, MD, Senior Partner, Atlas Venture
Frederick Frank, Vice Chairman, Lehman Brothers
Margaret Eaton, PhD, Senior Research Scholar, Stanford Center for Biomedical Ethics
Jay Siegel, MD, Group President, Johnson & Johnson Pharmaceuticals
Research & Development
Geeta Anand, Health and Science Reporter, Wall Street Journal

3:45 pm • Interlude

David Helfand, PhD, Chairman, Astronomy Department, Columbia University; world-renowned astrophysicist

“Life sciences beyond the Earth: a brief demonstration”

4:10 pm • Break

4:30 pm • BioAgenda “Great Debate”

Creating the perfect human: yes or no?

The pros and cons of being smarter, stronger, faster, disease-free... or immortal? The ethics, economics, law and philosophy of perfecting and enhancing the human “machine”

A formal debate (like we used to have in high school)

Moderator: **Moira Gunn**, PhD, Host of National Public Radio's Tech Nation and BioTech Nation

Ray Kurzweil, Author, “The Age of Spiritual Machines”

Michael Sandel, PhD, Professor of Government, Harvard

HOMEWORK ASSIGNMENT: This topic will include the presentation of ideas generated by the “homework” assignments issued before the summit. Summit attendees will be invited to answer the Great Debate question: Creating the perfect human: yes or no? and to send in comments and ideas on this topic; selections from this input will be presented to the debaters for discussion, and all ideas will be included on the BioAgenda Website.

Co-Organized by NPR's Tech Nation

The BioAgenda Great Debate will be broadcast on Tech Nation to over 200 public radio affiliates in the U.S., and to 80 nations abroad

5:30 pm • Adjourn for the day

6:30 pm • Cocktails

7:30 pm • Dinner on your own at area restaurants, or join us for the optional film festival below, featuring “film food”.

SPECIAL EVENING ARTS EVENT

7:30 pm • Mini-Film Festival of Science

(Optional) Selections from the First Annual BioAgenda Science Film Festival (to be held in San Francisco, Spring, 2006). From Classics to Current Films, Documentaries, and Shorts. Curated by Tom Luddy, Co-Director of the Telluride Film Festival; Film Producer (Francis Ford Coppola's American Zoetrope Production).

“Film food” will be served: pizza and popcorn.

FRIDAY, MARCH 10, 2006 – DAY THREE

MORNING SESSION

7:00 am • Breakfast

7:45 am • Welcome

David Ewing Duncan, BioAgenda 2006 Summit Host

7:50 am • Fireside Chat: Economics

A discussion about the current status of life sciences economics, in conversation with host David Ewing Duncan

Susan D. Hellmann, MD, President Product Development, Genentech

8:30 am • TOPIC: Is the Biotech Industry Paying Off?

Four proposals for reforming drug development to benefit both patients and companies. Each panelist will offer a short “proposal”, followed by a discussion.

Moderator: Peter Petre, Editor-at-Large, *Fortune* Magazine

G. Steven Burrill, Founder & CEO, Burrill & Company

Ron Cape, PhD, Co-Founder and former CEO, Chiron

Joan Samuelson, President, Parkinson's Action Network: Parkinson's Disease patient; former head of Paramount Studios

Raymond Woosley, MD, PhD, President, The Critical Path Institute; former senior official at the Food and Drug Administration

HOMEWORK ASSIGNMENT: This topic will include the presentation of ideas generated by the “homework” assignments issued before the Summit.

9:30 am • Announcement of New BioAgenda Report Launched for 2006 “The Current Status of the Biotech Industry, and Recommendations for Reform”

is a major report that the BioAgenda Institute will be preparing over the next year to assess the successes and failures of this industry, with suggestions for reform. The report will be researched and written by leading experts, with the final report approved by an expert panel comprised of senior representatives from industry, science, patient advocacy groups, public policy and other suitable fields to insure a wide range of opinions and points of view.

BioAgenda Host **David Ewing Duncan** will announce the project, and offer a brief summary of the proposed report, inviting input from attendees over the next year

9:35 am • BioAgenda 2006 Innovator

The reality of the science versus the promises made by supporters and claims by critics; and what works and doesn't work.

Moderator: **Jason Pontin**, Editor-in-Chief, MIT Technology Review

Part I: Regulating Research

How Britain Has Dealt with Stem Cell Research

Lord Naren Patel of Dunkeld, MD, Member of the UK Stem Cell Research Oversight Committee and the UK Stem Cell Bank Steering Committee; Chair, National Patient Safety Agency, UK

In conversation with **Jason Pontin**

Part II: Discussion

Michael Honda, Member, U.S. House of Representatives

William Hurlbut, MD, Bioethicist; Consulting Professor, Stanford University; member, President's Council on Bioethics

Edison Liu, MD, Executive Director, Genome Institute of Singapore

Joan Samuelson, President, Parkinson's Action Network; Parkinson's Disease patient; former head of Paramount Studios Group member filing suit against California Stem Cell Initiative

Co-Organized by the *MIT Technology Review*

11:20 am • BioAgenda Challenge

Baroness Susan Greenfield, PhD, Professor, Oxford University; Director, Royal Institute of Great Britain; British House of Lords

Challenge: "Science should create a 'Science Corps' to assist in solving scientific conundrums in the developing world"

Baroness Greenfield will be available for further discussion at lunch.

Co-Organized by the Royal Institution of Great Britain

11:45 am • TOPIC: The Haves and Have Nots of Life Sciences

About a billion people have access to the fruits of modern discoveries and innovations in life sciences. What about the other 5 billion people? Why are there gaps, and can they be filled?

PART 1: Presentation of BioAgenda White Paper Report

A summary presentation of the BioAgenda Institute's first collaborative white paper, prepared with the support and input of the GAPCures Initiative, a group of leaders in business, the media, and development with a mission to study innovative ways for industry to contribute to filling in the "gaps" in providing medications to the have-nots in the world.

PART 2: Panel Discussion

Moderator: **Tracy Kidder**, Author of *Mountains Beyond Mountains*

Rashmi Barbhaya, PhD, CEO and Co-Founder Advinus Therapeutics; former President, R&D, Ranbaxy

Seth Berkley, MD, President and Founder, International AIDS Vaccine Initiative

Baroness Susan Greenfield, PhD, Professor, Oxford University; Director, The Royal Institute of Great Britain; British House of Lords

Chris Hentschel, PhD, CEO, Medicines for Malaria Venture

Paul Herrling, PhD, Head of Corporate Research, Novartis

HOMEWORK ASSIGNMENT: This topic will include the presentation of ideas generated by the "homework" assignments issued before the Summit.

Co-Organized by the Ad-Hoc Committee for the GAPCures Initiative

1:00 pm • LUNCH

2:30 pm • Interlude

Leonard Schlain, MD, Associate Professor, UCSF; Author of *Sex, Time & Power*

2:55 pm • Discover Magazine Roundtable

Public Health, Bioterrorism and Pathogens

From Bioterrorism to Avian Flu and the Biohazards of Hurricanes and Other Disasters – Are We Ready?

Moderator: **Stephen Petranek**, Editor-in-Chief, *Discover Magazine*

Parney Albright, Assistant Secretary of Homeland Security

Barry R. Bloom,* PhD, Dean of Faculty, Harvard School of Public Health

Seth Berkeley, MD, Founder, International AIDS Vaccine Initiative

Brook Byers, Partner, Kleiner, Perkins, Caufield and Byers

Richard Rhodes, Author, *The Making of the Atomic Bomb*; Pulitzer Prize Winner

Cynthia Schneider, Distinguished Professor, Georgetown University; former U.S. Ambassador

Co-Organized by *Discover Magazine* and Georgetown University's Life Sciences Initiative

The Discover Roundtable will be published in Discover Magazine in the summer of 2006

4:15 pm • Summary of Summit, call to continue the dialogue

Host David Ewing Duncan asks the BioAgenda Innovators and Challengers to stand, and requests participants to support their efforts over the coming year.

4:30 pm • Summit Closes

Friday evening and Saturday, March 11:

Extend your stay at the fabulous la Quinta Resort & Club and enjoy more informal discussions, tournaments in golf and tennis and the La Quinta Spa.

FOR SUMMIT PARTICIPANTS:

You are highly encouraged to participate in the following exercise prior to the Summit:

1. Homework Assignments: Before the summit, participants will receive a brief assignment to provide input with ideas, innovations, solutions or comments about specific topics. Selected ideas will be printed and shared by moderators for speakers and participants to discuss.

BIOAGENDA BOARD OF ADVISORS

Alex Barkas, PhD, Managing Partner, Prospect Venture Partners

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Jonathan Leake, Science Editor, Times of London

Stephen Petranek, Editor-in-Chief, Discover Magazine

Peter Petre, Senior Editor-at-Large, Fortune Magazine

Jason Pontin, Editor-in-Chief, MIT Technology Review

COMMENTS ABOUT BIOAGENDA

This new-style gathering brings out the intellectual debate among leading scientists, entrepreneurs, legislators, ethicists, and investors on the huge issues of innovation and responsibility that go with the biotechnology revolution.

Brook Byers

Partner, Kleiner Perkins Caufield & Byers

The 2004 Summit's unique blend of science, policy, ethics and the arts created an environment which stimulated a one-of-a-kind dialogue, unlike any I have ever experienced in two decades of attending biotechnology conferences...

Steven H. Holtzman

CEO, Infinity Pharmaceuticals, Inc.

I don't really like going to conferences, but BioAgenda is a huge exception—invigorating, smart, newsy, controversial and consequential.

Stephen Petranek

Editor-in-Chief, Discover Magazine



David Ewing Duncan

Founder, BioAgenda and Summit Host

David is an award-winning science journalist and a best-selling author with books published in 19 languages. He writes for *WIRED*, *Discover*, *Fortune*, *Atlantic*, and many others. He is a special correspondent and producer for ABC's *Nightline* and *NOVA*; and a commentator for NPR's "Morning Edition." In 2004, David won the prestigious AAAS Magazine Journalism Award.

I have a clear distinction about where society's responsibility is and where that of the scientist is. And I can't abide by society saying, "We're afraid of what it might open the door to." On the other hand, once discoveries are made, their practical application does affect everybody and that is a legitimate place where society has a role in deciding. Scientists can explain the science, but we are not going to dictate it. But on the other hand, we insist on the freedom to explore.

Paul Berg, PhD

speaking at the BioAgenda 2004 Summit
Professor Emeritus, Stanford University;
Nobel Laureate

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