WESTERN MICHIGAN UNIVERSITY

Office of the Associate Vice President
for Business

Postmark 10/26

October 24, 2006

The Sunshine Project
PO Box 41987
Austin, TX 78704

ATTENTION: Edward Hammond

Dear Mr. Hammond:

This is in response to your request dated October 11, 2006 for copies of the Western Michigan University Institutional Biosafety Committee minutes from May 1, 2003 through present.

The documents requested are included with this transmittal letter.

Sincerely,

Susan S. Kremer for

Lowell P. Rinker
Freedom of Information Coordinator

sk

Enclosure

c Edward Hammond
The Sunshine Project
1920 Stuart Street
Berkley, CA 94703

Seibert Administration Building, Kalamazoo, MI 49008-5203
PHONE: (269) 387-2368 FAX: (269) 387-2356
www.wmich.edu

WESTERN MICHIGAN UNIVERSITY

Centennial
1903·2003 Celebration

Recombinant DNA Biosafety Committee

Memorandum

Date: October 16, 2006

To: Lowell Rinker
Associate Vice President for Business and FOIA Officer

From: Victoria Janson
Research Compliance Coordinator

Re: The Sunshine Project request for Recombinant DNA Biosafety Committee (RDBC) Minutes

Attached are documents associated with The Sunshine Project request for information on our Biosafety Committee meetings.

1. A letter which I faxed to them today asking them to direct requests to you.
2. A copy of their letter to WMU. (I suspect that the original request did not get to me because they used our old area code.)
3. An article published in a 2004 issue of Science describing The Sunshine Project organization.
4. Copies of the RDBC minutes from 2003, 2004, and 2005. We meet once per year. We have not yet met in 2006.

Thank you for handling this request. Let me know if I can do anything to help.

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Centennial 1903·2003 Celebration

INSTITUTIONAL BIOSAFETY COMMITTEE

MINUTES

Date and Time: Thursday, December 1, 2005, 3:00 p.m.

Place: Alumni Lounge, 211W Walwood Hall

Present: A. Enyedi, Chair and Plant Expert, K. Essani, Vice-Chair and Biological Safety Officer, P, Holton, L. Ginsberg. S. Rossbach, David Lowery, V. Janson (compliance administrator)

Absent: P. Olinger

1. The Minutes of the October 11, 2004 meeting were approved. Vote 6-0

2. The following protocols were reviewed and the action of the committee is indicated for each protocol:

   05-DCb "Development of Microsatellite Genetic Markers"
   Principal Investigator: David Cowan
   New protocol, approved, vote 6-0

   05-KEa "Expression of Tanapox Virus and Frog Virus 3 proteins"
   Principal Investigator: Karim Essani
   Continuing protocol, approved, vote 5-0 Essani abstaining

   05-JGc "Recombinant Non-Ribosomal Protein Synthetases"
   Principal Investigator: John Geiser
   Continuing protocol, approved, vote 6-0

   05-PHa "Analysis of the Role of the UNC-82 Protein Kinase in C. elegans Muscle Function"
   Principal Investigator: Pamela Hoppe
   Continuing protocol, approved, vote 6-0

   05-WR-Ha "Cytokine Expression in Rats Infected with Nippostrongylus Brasilliensis"
   Principal Investigator: Wendy Ransom-Hodgkins
   Continuing protocol, approved, vote 6-0

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05-WR-Hb "Regulation of Eukaroytic Elongation Factor One Alpha by Post-Translational Modifications"
Principal Investigator: Wendy Ransom-Hodgkins
Continuing protocol, approved with modification, vote 6-0

05-BTb "Structure-Function Studies of Mammalian, Archaeal and Bacterial Carbonic Anhydrases and Structurally Related Left-handed Beta-helical Enzymes"
Principal Investigator: Brian Tripp
Continuing protocol, approved, vote 6-0

05-MSa "Polar Assembly of the Type II Secretion Apparatus"
Principal Investigator: Maria Scott
Continuing protocol, approved, vote 6-0

05-BBa "PDGF and PTN Secondary Signaling"
Principal Investigator: Bruce Bejcek
Continuing protocol, approved, vote: 6-0

05-JGb "Identification and Characterization of Cellular Targets of Yersinia etherocolitica Protein Toxins"
Principal Investigator: John Geiser
Continuing protocol, approved, vote 6-0

05-JGc "Recombinant Non-Ribosomal Protein Synthetases
Principal Investigator: John Geiser
Continuing protocol, approved, vote 6-0

05-DHa "Novel Metallopeptides as Inhibitors of Blood Clot Formation"
Principal Investigator: David Huffman
Continuing protocol, approved, vote 6-0

05-DHb "Engineering Naphthalene Dioxygenase"
Principal Investigator: David Huffman
Continuing protocol, approved, vote 6-0

05-DHc "Characterization of CCH and RAN1 Proteins of Arabidopsis thaliana"
Principal Investigator: David Huffman
Continuing protocol, approved, vote 6-0

05-DHd "Characterization of Several Domains of the Human Wilson Protein"
Principal Investigator: David Huffman
Continuing protocol, approved, vote 6-0

05-SRa "Bacteria-Plant Interaction in the Rhizosphere"
Principal Investigator: Silvia Rossbach
Continuing protocol, approved, vote 5-0, S. Rossbach abstaining

05-SRb "Metal-Induced Gene Expression"
Principal Investigator: Silvia Rossbach
Continuing protocol, approved, vote 5-0, S. Rossbach abstaining

05-MSa "Polar Assembly of the Type II Secretion Apparatus
Principal Investigator: Maira Scott
Continuing protocol, approved, vote 6-0

05-SSa "Signal Transduction Mechanisms"
Principal Investigator: Susan Stapleton
Continuing protocol, approved, vote 6-0

05-BTa "Engineering and Display of Enzymes and Proteins on Bacterial Flagella Fibers"
Principal Investigator: Brian Tripp
Continuing protocol, approved, vote 6-0

3. The registration files from 2003 were reviewed. New registration documents were submitted for all projects *except* the following:

04-JMa "Characterization of the p53 Gene in Fishes and Rodents" Jay Means

04-DRb "Mechanism of the Antagonistic Effect of Metals on BPDE Mutagenesis" David Reinhold

4. Karim Essani gave facilities report. The future BSL-3 facility is being renovated. The CDC will be invited back to inspect the facility after renovation is complete. No BSL-3 agents are being used at this time. When complete the BSL-3 lab will be a core facility.

5. Alex Enyedi announced his desire to resign as chair. Silvia Rossbach agreed to take over the responsibilities of chair. RDBC will recommend to President Bailey that Dr. Rossbach be appointed.

Minutes submitted by V. Janson

Recombinant DNA Biosafety Committee

Centennial 1903-2003 Celebration

RECOMBINANT DNA BIOSAFETY COMMITTEE

MINUTES

Date and Time: Monday, October 11, 2004, 3:00 p.m.

Place: Alumni Lounge, 211W Walwood Hall

Present: A. Enyedi, Chair and Plant Expert, K. Essani, Vice-Chair and Biological Safety Officer, P, Holton, L. Ginsberg (for J. Luderer), P. Olinger, S. Rossbach, David Lowery, V. Janson (compliance administrator), J. Center, Radiation Safety Officer

1. The Minutes of the August 21, 2003 meeting were approved. Vote 7-0

2. The following protocols were reviewed and the action of the committee is indicated for each protocol:

   04-DCa "Wasp Microsatellite Development"
   Principal Investigator: David Cowan
   New protocol, approved, vote 7-0

   04-KEa "Expression of Tanapox Virus and Frog Virus 3 proteins"
   Principal Investigator: Karim Essani
   New protocol, approved with one clarification, vote 6-0 (K. Essani left the room during the discussion and vote)

   04-JGc "Recombinant Non-Ribosomal Protein Synthetases"
   Principal Investigator: John Geiser
   New protocol, tabled pending clarification to be reviewed at a meeting convened by email, vote 7-0

   04-PHa "Analysis of the Role of the UNC-82 Protein Kinase in C. elegans Muscle Function"
   Principal Investigator: Pamela Hoppe
   New protocol, approved with clarification, vote 7-0

   04-WR-Ha "Cytokine Expression in Rats Infected with Nippostrongylus Brasilliensis"
   Principal Investigator: Wendy Ransom-Hodgkins
   New protocol, approved, vote 7-0

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04-WR-Hb "Regulation of Eukaroytic Elongation Factor One Alpha by Post-Translational Modifications"
Principal Investigator: Wendy Ransom-Hodgkins
New protocol, approved with modification, vote 7-0

04-BTb "Structure-Function Studies of Mammalian, Archaeal and Bacterial Carbonic Anhydrases and Structurally Related Left-handed Beta-helical Enzymes"
Principal Investigator: Brian Tripp
New protocol, approved with modification, vote 7-0

04-Msa "Polar Assembly of the Type II Secretion Apparatus"
Principal Investigator: Maria Scott
New protocol, approved, vote 7-0

04-BBa "PDGF and PTN Secondary Signaling"
Principal Investigator: Bruce Bejcek
Continuing protocol, approved, vote: 7-0

04-JGa "The Role of Cytoplasmic Dynein in the Yeast *Saccharomyces cerevisiae*"
Principal Investigator: John Geiser
Continuing protocol, approved, vote 7-0

04-JGb "Identification and Characterization of Cellular Targets of Yersinia etherocolitica Protein Toxins"
Principal Investigator: John Geiser
Continuing protocol, approved, vote 7-0

04-DHa "Novel Metallopeptides as Inhibitors of Blood Clot Formation"
Principal Investigator: David Huffman
Continuing protocol, approved, vote 7-0

04-DHb "Engineering Naphthalene Dioxygenase"
Principal Investigator: David Huffman
Continuing protocol, approved, vote 7-0

04-DHc "Characterization of CCH and RAN1 Proteins of Arabidopsis thaliana"
Principal Investigator: David Huffman
Continuing protocol, approved, vote 7-0

04-DHd "Characterization of Several Domains of the Human Wilson Protein"
Principal Investigator: David Huffman
Continuing protocol, approved, vote 7-0

04-JMa "Characterization of the p53 Gene in Fishes and Rodents"
Principal Investigator: Jay Means
Continuing protocol, approved, vote 7-0

04-DRb "Mechanism of the Antagonistic Effect of Metals on BPDE Mutagenesis"
Principal Investigator: David Reinhold
Continuing protocol, approved, vote 7-0

04-SRa "Bacteria-Plant Interaction in the Rhizosphere"
Principal Investigator: Silvia Rossbach
Continuing protocol, approved, vote 6-0, S. Rossbach abstaining

04-SRb "Metal-Induced Gene Expression"
Principal Investigator: Silvia Rossbach
Continuing protocol, approved, vote 6-0, S. Rossbach abstaining

04-SSa "Signal Transduction Mechanisms"
Principal Investigator: Susan Stapleton
Continuing protocol, approved, vote 7-0

04-BTa "Engineering of Novel Enzymes, Including Left-Handed Beta-Helical Enzymes via High Throughput Methodologies and Display of Enzymes and Proteins on Bacterial Flagella Fibers"
Principal Investigator: Brian Tripp
Continuing protocol, approved, vote 7-0

3. The registration files from 2003 were reviewed. New registration documents were submitted for all projects *except* the following:

03-AEa "Genetic Transformation of Tomato, Soy Bean and Tobacco to Express B-Glucosidase (bglA) and Salicylate Hydroxylase (nahG)"
Principal Investigator: Alexander Enyedi

03-AEb "Gene Flow from Transgenic Cucurbita Pepo into Free-living Populations"
Principal Investigator: Alexander Enyedi

03-KEa "Cloning of Tanapox Virus and Frog Virus 3 Genomic Fragments"
Principal Investigator: Karim Essani

03-Jsa "Cytokine Expression in Rats Infected with Nippostrongylus Brasilliensis"
Principal Investigator: John Stout

4. Karim Essani gave facilities report. The future BSL-3 facility is being renovated. The CDC will be invited back to inspect the facility after renovation is complete. No BSL-3 agents are being used at this time. When complete the BSL-3 lab will be a core facility.

5. Karim Essani, Patricia Holton, Patricia Olinger and Silvia Rossbach each agreed to renew their membership on the RDNA committee for another three-year term.

Minutes submitted by V. Janson

Recombinant DNA Biosafety Committee

Centennial 1903-2003 Celebration

INSTITUTIONAL BIOSAFETY COMMITTEE

MINUTES

Date and Time: Thursday, August 21, 2003, 3:00 p.m.

Place: Alumni Lounge, 211W Walwood Hall

Present: A. Enyedi, Chair and Plant Expert, K. Essani, Vice-Chair and Biological Safety Officer, P, Holton, J. Luderer, P. Olinger, S. Rossbach, C-S. Tomich, David Lowery, V. Janson (compliance administrator), J. Center, Environmental Specialist

1. The Minutes of the June 25, 2001 meeting were approved. Vote 6-0 (J. Luderer not present for vote)

2. The Minutes of the June 30, 2002 meeting were approved. Vote 6-0 (J. Luderer not present for vote)

3. The following protocols were reviewed and the action of the committee is indicated for each protocol:

   03-DHa "Novel Metallopeptides as Inhibitors of Blood Clot Formation"
   Principal Investigator: David Huffman
   New protocol, approved, vote 7-0

   03-DHb "Engineering Naphthalene Dioxygenase"
   Principal Investigator: David Huffman
   New protocol, approved, vote 7-0

   03-DHc "Characterization of CCH and RAN1 Proteins of Arabidopsis thaliana"
   Principal Investigator: David Huffman
   New protocol, approved, vote 7-0

   03-DHd "Characterization of Several Domains of the Human Wilson Protein"
   Principal Investigator: David Huffman
   New protocol, approved, vote 7-0

   03-JSa "Cytokine Expression in Rats Infected with Nippostrongylus Brasilliensis"
   Principal Investigator: John Stout
   New protocol, approved, vote 7-0

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03-BBa "PDGF and PTN Secondary Signaling"
Principal Investigator: Bruce Bejcek
Continuing protocol, approved, vote: 7-0

03-AEa "Genetic Transformation of Tomato, Soy Bean and Tobacco to Express B-Glucosidase (bglA) and Salicylate Hydroxylase (nahG)"
Principal Investigator: Alexander Enyedi
Continuing protocol approved, vote 6-0, A. Enyedi abstaining

03-AEb "Gene Flow from Transgenic Cucurbita Pepo into Free-living Populations"
Principal Investigator: Alexander Enyedi
Continuing protocol, approved, vote 6-0, A. Enyedi abstaining

03-KEa "Cloning of Tanapox Virus and Frog Virus 3 Genomic Fragments"
Principal Investigator: Karim Essani
Continuing protocol, approved, vote 6-0, K. Essani abstaining

03-JGa "The Role of Cytoplasmic Dynein in the Yeast *Saccharomyces cerevisiae*"
Principal Investigator: John Geiser
Continuing protocol, approved, vote 7-0

03-JGb "Identification and Characterization of Cellular Targets of Yersinia etherocolitica Protein Toxins"
Principal Investigator: John Geiser
Continuing protocol, approved, vote 7-0

03-JMa "Characterization of the p53 Gene in Fishes and Rodents"
Principal Investigator: Jay Means
Continuing protocol, approved, vote 7-0

03-DRb "Mechanism of the Antagonistic Effect of Metals on BPDE Mutagenesis"
Principal Investigator: David Reinhold
Continuing protocol, approved, vote 7-0

03-SRa "Bacteria-Plant Interaction in the Rhizosphere"
Principal Investigator: Silvia Rossbach
Continuing protocol, approved, vote 6-0, S. Rossbach abstaining

03-SRb "Metal-Induced Gene Expression"
Principal Investigator: Silvia Rossbach
Continuing protocol, approved, vote 6-0, S. Rossbach abstaining

03-SSa "Signal Transduction Mechanisms"
Principal Investigator: Susan Stapleton
Continuing protocol, approved, vote 7-0

03-BTa "Engineering of Novel Enzymes, Including Left-Handed Beta-Helical Enzymes via High Throughput Methodologies and Display of Enzymes and Proteins on Bacterial Flagella Fibers"
Principal Investigator: Brian Tripp
Continuing protocol, approved, vote 7-0

4. The registration files from 2002 were reviewed. New registration documents were submitted for all projects *except* the following:

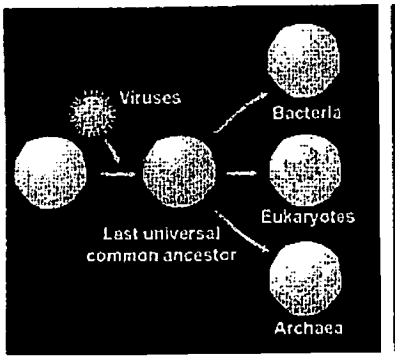
   02-DRc "Mechanism of the Aberrant Growth of Human Fibrosarcoma Cell Lines"
   Principal Investigator: David Reihnold

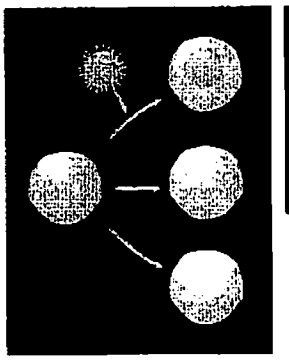
   02-SSc "Signal Transduction in c. Elgans"
   Principal Investigators: Sue Stapleton and Tomislav Modric

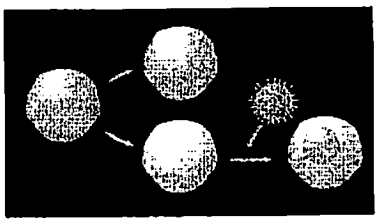
5. Karim Essani gave facilities report. The future BSL-3 facility is being renovated. The CDC will be invited back to inspect the facility after renovation is complete. No BSL-3 agents are being used at this time. When complete the BSL-3 lab will be a core facility.

6. Report on the *WMU Policy for Recombinant DNA Biosafety* was tabled.

Minutes submitted by V. Janson







Viral intervention. Persistent viral infections could have paved the way for the nucleus at different points in early cellular evolution.

a critical role in the evolution of the complex [eukaryotic] system," adds Forterre.

Viruses do have the ability to set up permanent residency in a cell, infecting but not killing the host. Thus they and their genes can stay around and influence a cell's evolution. Bell, Forterre, Prangishvili, and Luis Villarreal, a virologist at the University of California, Irvine, each have a different proposal for how viruses were important to the evolution of the nucleus. Their supporting data are provocative, but circumstantial and controversial. "I do not believe [it]," says Jacomine Krijnse-Locker of the European Molecular Biology Laboratory in Heidelberg, Germany. "The idea of the viruses 'inventing' [eukaryotic cells] from scratch is hard for me to conceive."

When viruses persist in cells instead of killing them, cells "can acquire a whole new set of genes in one event," counters Villarreal. While in residence over millions of years, the new viral genes could have supplanted bacterial or archaeal genes, replacing, for instance, proteins that process DNA. These extra genes could also evolve to play new roles in the cell.

Villarreal points out that there are intriguing similarities between nuclei and viruses, which are basically packets of DNA surrounded by a protein coat—and often by a membrane. In red algae, for example, a nucleus can move from cell to cell, much like an infectious virus. And in general, cell nuclei and viruses lack protein- and lipid-producing pathways within their borders. Both contain linear chromosomes, whereas most bacterial chromosomes are circular. Both disassemble their "membrane" during replication. Both transcribe DNA but don't translate mRNA within their boundaries. As they replicate within a cell, some poxviruses even make a membrane around their DNA using the endoplasmic reticulum of the infected cell. The eukaryotic cell uses this same material to build its nucleus.

Large, complex DNA viruses, which include poxviruses and the African swine fever virus, likely bear the closest resemblance to the putative viral ancestor of the nucleus, Bell suggests. DNA strands in these viruses have primitive telomeres, protective DNA sequences found at the ends of eukaryotic chromosomes.

Bell speculates that a virus living in an archaeum set the stage for the nucleus. Ultimately, viral DNA and archaeal DNA merged inside the virus, and the new genome later shed genetic material from both. In the end, "the unique genetic architecture of the eukaryote is a result of superimposing a viral genetic architecture on an archaeal genetic architecture," Bell argues.

"If this is true, then we are all basically descended from viruses," remarks Forterre.

Did a virus provide the first nucleus? Or was it something an early bacterial cell evolved, either on its own or in partnership with an archaeum? To resolve the origin of the nucleus, evolutionary biologists are exploring new techniques that enable them to determine relationships of microorganisms that go much further back in time. And as new genome sequences become available, such as those of several planctomycetes, Fuerst and others plan to search for more genetic similarities between these bacteria and eukaryotes. Meanwhile, García-López anxiously awaits sequenced genomes of myxobacteria and plans to compare them with the genes of eukaryotes.

Overall, says Forterre, it's "a really exciting time to tackle questions which were previously only considered seriously by a few theoritists."

—ELIZABETH PENNISI

Profile

Activist Throws a Bright Light on Institutes' Biosafety Panels

Edward Hammond's aggressive sleuthing has triggered a debate on the oversight of the growing field of biodefense research

AUSTIN, TEXAS—In late January, Edward Hammond sent out a blizzard of faxes to almost 400 research institutes from Honolulu to New York. His request was straightforward enough: He asked for the minutes of the last two meetings of each organization's Institutional Biosafety Committee (IBC).

Hammond, who directs the Sunshine Project, a small nonprofit organization based in Austin, wondered whether the IBCs fulfill their oversight role for certain types of biology experiments as prescribed by guidelines from the National Institutes of Health (NIH). In particular, he questioned whether they would publicly share their deliberations. Such openness, he says, is vital to prevent biodefense research from going astray.

Today, Hammond is fighting testy e-mail battles with his targets over their tardy responses. How to answer his query has become a hot topic among biosafety officers and university lawyers. Some universities have sent him minutes, but with almost every detail blanked out, arguing that the redacted information is private, proprietary, or security-sensitive. More important, Hammond has concluded that the IBC system, designed in the 1970s to review recombinant DNA research, is in disarray. He claims that dozens of IBCs, many of them at the nation's research powerhouses, aren't staffed properly, don't seriously review proposals, or never meet at all. Outraged, he has filed complaints with NIH, asking it to cut off funding retroactively to 19 institutions. Dozens more complaints are on the way.

NIH officials are investigating the charges, but there's no reason to assume that the entire system is broken, says Allan Shipp of NIH's Office of Biotechnology Activities (OBA), which oversees IBCs. Most IBCs are "very earnest in their attempts and desire to fulfill their responsibilities," he says.

Some researchers who have followed Hammond's quest—he posts alleged violations frequently on his Web site—disagree. "Frankly, I've been surprised by the number and magnitude of the deviations from the

CREDITS: R. HUEY/SCIENCE; SOURCE: R. FORTERRE

guidelines that he has identified," says molecular biologist Richard Ebright of Rutgers University in Piscataway, New Jersey. To him, the results are an indictment of OBA as well. "If many institutions do not have IBCs in place for a long period of time, or their IBCs don't schedule meetings, then that office is not functioning," he says.

Hammond's critics say he doesn't distinguish between correct paperwork and biosafety itself. The latter is a topic he doesn't know much about, argues Stefan Wagener, president of the American Biological Safety Association. Many also dislike the confrontational tone of his prolific correspondence. "He's an irritant sometimes," says virologist C. J. Peters of the University of Texas Medical Branch in Galveston. "He's fond of trouble, but the kind of information that he's after doesn't make us much safer."

Just answer the question

In a café near his tiny office, the San Antonio native, who graduated in Latin American studies and community and regional planning, explains the motivation behind his crusade. Safety isn't Hammond's main concern. He sympathizes with biodefense activists who, fearful of escaping germs, rail against planned high-level biosafety labs in their neighborhoods, but he's more interested in another issue: transparency. "The public has a right to know," he says, "that's what it's really all about." He is unapologetic about being aggressive. "You have to be tough to be heard," he says. "If you are working with Ebola, the public has a right to ask questions."

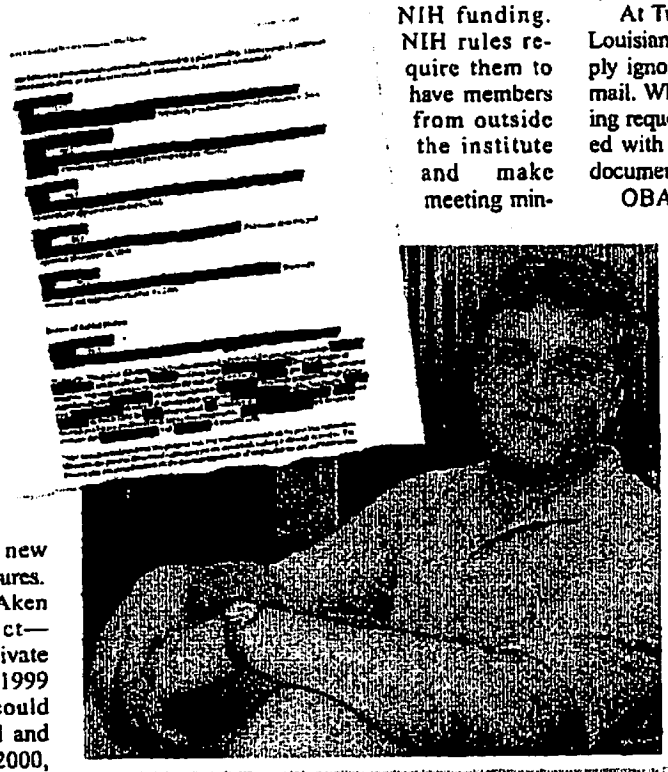
Without appropriate public oversight, Hammond argues, biodefense spending could easily cross over into offensive research. Some recent studies—such as the creation of the poliovirus from scratch and the partial resurrection of the 1918 pandemic flu virus—trigger a vicious cycle, he asserts: Under the guise of defending against potential threats, researchers generate new ones, requiring new countermeasures.

German biologist Jan van Aken founded the Sunshine Project—exposure to sunlight can inactivate many biological weapons—in 1999 to investigate activities that could undermine the 1972 Biological and Toxin Weapons Convention. In 2000, he joined with Hammond and his wife Susana Pimiento, a lawyer from Colombia, to set up a U.S. branch. The group's $100,000 annual budget is funded by liberal-leaning charities such as the Ben & Jerry's Foundation and individual donors.

One of Hammond's first targets was the U.S. program—still ongoing—to use pathogenic fungi to eradicate opium poppy, cannabis, and coca crops in South America and Asia. Using the Freedom of Information Act, he has unearthed "a tremendous amount of information" about that effort, says Mark Wheelis, an arms control researcher at the University of California, Davis, who serves on Sunshine's advisory committee. Hammond has also dug into the Pentagon's secretive research into so-called nonlethal weapons, which include psychoactive and anesthetic drugs. These weapons may violate the 1993 Chemical Weapons Convention. "He has done an immense service to the arms control community," says Wheelis. "Most of us simply don't have the time to chase those documents."

Minutes Man

Now Hammond has become a watchdog of the biodefense business, and he's using the IBCs to get a foot in the door. Set up in the 1970s in response to worries about genetic engineering, IBCs review studies involving recombinant DNA at every institute that receives NIH funding. NIH rules require them to have members from outside the institute and make meeting minutes accessible. Although recombinant DNA work is their official mandate, many institutes have also charged IBCs with looking at other potentially hazardous work.



Blackout. Edward Hammond's request for minutes of biosafety meetings produced heavily redacted documents—or nothing, in some cases.

CREDITS (BOTTOM): IAN HASPA

Hammond concedes that most of the vast stacks of the documents he has received don't contain anything very exciting. It's what he hasn't received, however, that upsets him.

Take Mount Sinai Medical Center in New York City, which has dozens of projects that entail recombinant DNA work, including studies with Ebola and Lassa fever viruses. Yet its IBC has met only once and reviewed three proposals since 2001. The committee's minutes—which Mount Sinai provided to Hammond and subsequently to *Science*—consist simply of the research proposals and signed letters of approval from the IBC. A Mount Sinai spokesperson provided *Science* with a list of reasons why experiments that Hammond says should have been reviewed are, in fact, exempt from the guidelines.

IBC meetings are an equally rare event at Rockefeller University in New York City, where the panel last met in September 2003, after a 5-year hiatus. The Rockefeller IBC reviews all proposals—some 161 since 2000—electronically, explains Amy Wilkerson, associate vice president for research support. She, however, has declined to share any electronic records with Hammond, who says this is at odds with the spirit of the IBC system.

At Tulane University in New Orleans, Louisiana, Hammond's January fax was simply ignored, as was a follow-up by certified mail. When he faxed a final, more threatening request on 7 July, the university responded with a four-line letter saying it "has no documents responsive to your request."

OBA will investigate each of Hammond's complaints, says Shipp. In May, it put out a memo instructing IBCs that minutes should contain, at a minimum, "the major points of discussion and the committee's rationale for particular decisions." Mount Sinai told *Science* it will change its practices accordingly and will also honor a recent NIH suggestion that its IBC meet at least once a year.

Hammond's efforts come at a key time for IBCs. In March, the U.S. government announced plans to have them review any experiments that could play into the hands of bioterrorists (*Science*, 12 March, p. 1595). From the responses Hammond has received, Ebright says, "it's clear that they're not prepared for this extra burden."

—MARTIN ENSERINK