FOSTERING COMMUNICATION AND COLLABORATION

The NIH CATALYST

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NIH Name Appears on Degree

FIRST GENETICS GRAD FETED BY GWU-NIH

by Fran Pollner

In a twist of timing, just a few weeks before NIH decided to recast its graduate school plans, the first-ever doctoral diploma with "National Institutes of Health" embossed on its face was handed to Susan Zullo.

In May, Zullo got her Ph.D. in genetics at the George Washington University (Washington, D.C.) commencement—and a party thrown in her honor on the NIH campus.

Celia Hooper

Susan Zullo

She is the first student to go through the first full-scale doctoral program jointly sponsored by NIH and a degree-granting institution. And to her knowledge, she's the first holder of a degree that boasts "in conjunction with the NIH" on its printed face.

The NIH name on the diploma means a great deal to her, Zullo said, and she lobbied heavily to set the precedent—for herself and "everyone else" who follows. (In deciding to suspend efforts to become a degree-granting institution in its own right, NIH is opting instead to focus on improving existing collaborations like this one; see DDIR column, page 2, and story, page 13.)

"Everyone else," at the moment, is the 17 GWU doctoral students currently in the joint GWU-NIH genetics program, which was launched

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VARMUS CHAMPIONS FREE CYBERSPACE ACCESS TO ALL BIOMEDICAL RESEARCH REPORTS

by Fran Pollner

In one of the most controversial moves in his six-year directorship of NIH, Harold Varmus has offered the world the idea of "E-biomed," the provisional name of a proposed electronic publishing system for the world's biomedical and related research. Some—mostly the scientific troops—are hailing the proposal as visionary; others—including some journal publishers—seem more disposed to burn it at the stake.

Regardless of size and scope, existing biomedical publishing enterprises will surely be changed should E-biomed materialize, said panelists hailing from Elsevier Science, one of the world's largest scientific publishing houses, with 350 journals in the life sciences; Nature, *one of the most heavily subscribed science publications and home of* Nature Genetics, *the world's most often cited scientific publication; and* The Journal of Immunology, *the 85-year-old publication of the American Association of Immunologists.*

E-biomed would use the Internet to provide universal access to all published reports in the reviewed scientific literature—not just the title or the abstract, but the full report—free, with no subscription, no fee, no license needed to enter. It would also allow scientists to post essentially unreviewed papers in a separate section.

Recently, as the E-biomed protagonist on a panel that included Mary Waltham, U.S. president of *Nature*, Karen Hunter, senior vice president of Elsevier Science, and Michele Hogan, executive director of the American Association of Immunologists (AAI), Varmus tried to ease some qualms.

"None of us believes journals will disappear in the near future. We will go to our graves carrying our journals," he said. "And we don't view the [existing publishing] system as broken—but as suboptimally used," he added, speaking for himself and his collaborators in the E-biomed idea, most notably David Lipman, director of the National Center for Biotechnology Information at the NLM and the architect of PubMed and

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Decision Making in the Intramural Research Program

Michael Gottesman

The recent town meeting on graduate education at NIH illustrates one means by which the Office of Intramural Research and the NIH director obtain advice and commentary from NIH scientists on new or suggested policies that affect the intramural program. In addition to internal needs, outside forces often compel the development or modification of our policies. These external influences include the Congress, the Department of Justice and the courts, the Department of Health and Human Services, other government agencies that oversee various aspects of our research, and outside review groups.

The goal of the Office of Intramural Research is to integrate these various inputs into a coherent set of policies and procedures that enable intramural scientists to carry out biomedical research and training of the highest possible quality.

Several overriding themes were defined by the External Advisory Committee on the Intramural Research Program (the Marks-Cassell Committee) that have guided decision making in the five years since the report was issued. These include consistent application of rigorous scientific review and recruitment procedures to ensure that intramural resources are well utilized; improvement of the quality of research space on the NIH campus; increased diversity among NIH scientific staff; elimination, insofar as possible, of bureaucratic barriers to the conduct of science; and enhancement of training and mentoring at all levels in the intramural programs. Although you may not agree with every change that has taken place, I hope you recognize that most of the changes manifest these principles.

Another broad theme for intramural policy over the past few years has been improvement of the environment for clinical research at NIH. The NIH Director's Clinical Research Panel focused attention on the nationwide need for better training and career development for clinical researchers, as well as for increased support for translational and clinical research activities.

Subsequently, rejuvenation of clinical research here at NIH has been guided by a report on recruitment and retention of clinical researchers and by the activities of the Clinical Research Revitalization Committee, chaired by Steve Straus; the Clinical Center Advisory Council, chaired by Steve Hyman and Ed Liu; and the Medical Executive Committee, chaired by Scot Whitcup. Like most of our other initiatives, this effort is a work in progress, but we hope that by the time the Clinical Research Center is completed in late 2002, the clinical research infrastructure at NIH will be in place to optimize the use of the new building.

Recently, we codified and compiled most of the policies and procedures developed over the past several years in support of the activities of our intramural research programs. This information is updated regularly and is readily available to all intramural staff as the NIH Intramural Research Sourcebook (<**http://www1.od.nih.gov/oir/sourcebook/**>).

We expect to see continued evolution in management areas defined by a congressionally mandated administrative review by Arthur Andersen, Inc. Its report pointed to a need to improve communication between the scientific and administrative decisionmakers at NIH. Consequently, we have recruited Janis Mullaney to the Office of Intramural Research to act as a vector for such communication. Ms. Mullaney has extensive intramural experience as an administrative officer (AO), including several years as chair of the committee of lead AOs, and a reputation as a creative administrator dedicated to improving the NIH research environment.

Individual intramural policies supporting our basic principles and themes are made within the institutes or by the Board of Scientific Directors. As a new idea surfaces, it is discussed extensively by the scientific directors, and often by the lab and branch chiefs, who solicit comments within their own scientific domains. As appropriate, the NIH Fellows Committee, Women Scientist Advisors, the Central Tenure Committee, and Senior Biomedical Research Service Policy Board, as well as the special interest groups, may be involved in this process.

On a daily basis, the most important research decisions at NIH are made in our labs and clinics. NIH research is steered by the individual scientific decisions of our principal investigators and the programmatic decisions of institute directors and scientific directors, many of whom conduct their own research in the intramural program. NIH is fortunate to have staff and leadership with the experience, knowledge, creativity, and solid scientific judgment to make sound decisions.

Local decision making may feed back to our office, and ideas that have the capacity to transform the NIH are discussed more broadly—within the pages of the *Catalyst* (see "Catalytic Reactions," p. 3), the DDIR's Web Board, and at town meetings within individual institutes or NIH as a whole, for example. Eventually, NIH leaders make their decisions based on all of the inputs described above.

In the case of our collective discussion of graduate studies at NIH, these inputs led to a substantial change in direction from what was initially envisioned. We heard from NIH trainees and staff at every level, in every institute; from experts inside and outside the IRP; from proponents and opponents of a graduate program. We decided that rather than seek degree-granting authority for NIH, we will focus on improving all aspects of our present graduate and postgraduate programs and on improving and forging relationships with partner universities.

This change in course resets the decision-making cycle and leads me to end this column in my usual way: by calling on you once again to send me your ideas. ■

Catalytic Reactions

On Technology Transfer

A year ago, NCI postdoc Doug Loftus interviewed former NICHD branch chief Michael Zasloff, who had delivered a talk here on the therapeutic implications of his NIH research a decade earlier and his leaving NIH and founding a company to bring the research to marketable clinical fruition. Loftus' article "Swimming with the Sharks: A Maverick Former NIH Scientist's Life in the Corporate Waters" was printed in the July-August 1998 issue of The NIH Catalyst, ***along with a sidebar on "Tech Transfer Today" at NIH, briefly reviewing the operations of the NIH Office of Technology Transfer, which did not exist at the time Zasloff took his research into the world. OTT senior licensing specialist Steve Ferguson, who in June participated in a daylong seminar here on "Interacting with the Biotechnology and Pharmaceutical Community: What Scientists Need To Know," revisited the*** Catalyst ***article and picked up on something he thought might be misleading. The following exchange resulted.***

The "Tech Transfer Today" article in the July-August [1998] issue may give the impression that the only time an inventor can obtain commercial rights to an invention is if OTT is unable to find anyone to license it and waives title to the invention. This is incorrect. There are quite a few examples of NIH inventors leaving NIH to join or help start companies who then come back to NIH for licenses to the technology originally discovered at NIH. Once they have left NIH, the inventors (and their companies) have just as good an opportunity (and probably better, at times, given their scientific expertise in the technology) to obtain such licenses.

Two examples that quickly come to mind are Barrie Carter (formerly of NIDDK), now Director of Research & Development at Targeted Genetics Corporation in Seattle, Washington, and Randy Kincaid (formerly of NIAAA), now President of Veritas, Inc., of Potomac, Maryland. Targeted Genetics subsequently licensed several of Carter's gene therapy technologies from NIH, one of which Carter has been able to take into Phase II clinical trials. Veritas licensed some of Kincaid's calmodulin reagents from NIH for research product sales and distribution.

Thus, the Zasloff example is not that unusual—many scientists go from NIH to corporate scientific and/or management careers.

—Steve Ferguson
Senior Licensing Specialist, OTT

I was under the impression that the mechanisms in place at the time of Zasloff's discovery enabled him to have been granted the license while he was still an NIH investigator, albeit with the intention of subsequently recruiting capital and founding a company. Kincaid and Carter, on the other hand, were not NIH investigators at the time of licensing, but rather were already representing commercial entities and not at an advantage for licensing simply because they were the inventors.

I recall being told that licenses are not granted to an inventor at NIH unless no outside commercial entity expresses an interest, which is consistent with the procedures followed by Kincaid and Carter.

—Doug Loftus, NCI

I think there may be some confusion between waivers of inventions and licensing of inventions. The difference is that a waiver gives up ownership (title) of the property to the inventor, while a license is either an exclusive or nonexclusive lease in which the NIH does not give up ownership or title.

NIH inventions can be waived to inventors—generally, this involves inventions that don't seem to be patentable and/or licensable and in which the government determines it is no longer interested. When an invention is determined to be licensable (either as a patent license or biological material license), ownership is generally kept by NIH and licenses are granted by OTT. The royalties collected from these licenses are shared between the inventors (whether they are still here or not) and their institute.

A conflict of interest can arise if the inventor who receives ownership or a license to the invention is still at NIH, as these become personal interests of the inventor and could conflict with the inventor's official duties. For example, an inventor can't use employment time or resources for any projects related to the invention. Such ethical issues and consequences are important for inventors at NIH—hence a whole session on this subject at the recent tech transfer conference for NIH scientists, as well as specific written guidance interpreting the conflict-of-interest laws as they apply to technology transfer (see **<http://www.nih.gov/od/ott>**). It is highly unlikely under current guidelines that an inventor could commercialize an NIH invention (waived or licensed to them) while still an employee here.

Often, the situation is highly competitive when an inventor's company approaches OTT for a license. In the Carter case, for example, his basic gene therapy background technology was granted to four different firms nonexclusively. Another Carter technology, a specific cystic fibrosis gene therapy vector appropriate for exclusive licensing, was awarded to his firm—which, again, was one of several applicants. The Zasloff technology dates back to 1987, with the license agreement signed in 1989, the time he left NIH. This case predates OTT, so the coexclusive license was granted by the Department of Commerce through the usual competitive licensing procedures.

Your Zasloff article captures the basic motivation of why some inventors leave NIH: the chance to directly control and further participate in corporate efforts to make their ideas "real." As you can appreciate, to have such an ardent champion for the technology at a company is quite important in having the resultant product reach the public.

—Steve Ferguson

On an NIH Graduate School

I am responding to the request for input on the NIH graduate program, based on the town meeting [May 24], which I attended. My overall impression of the town meeting was as follows:

1. It is clear that the members of the NIH community highly value the town hall meeting. Michael Gottesman was right to say we should have more.

2. The case for an NIH postgraduate training program was made well and convincingly; the case for an NIH graduate school less so.

There are two phases to the dialog about an NIH graduate school. First, is it necessary: Can the NIH enhance the productivity and progress of the scientific enterprise by having a graduate school? Second, could an NIH graduate school be the right size to make a difference without detracting from the NIH Intramural Research Program mission? On the issue of necessity, we should probably listen very carefully to our extramural peers on this subject. . . . Can we convince ourselves and then them that we can train a group of scientists at the graduate level who truly have a unique and important impact on biomedical research? Do we have the institutional will to do it on a scale that will matter? Will that distract us from more important things? What will the "product" look like?

There was much talk of a training program with a strongly clinical flavor, but not too much about how to train someone for clinical research without offering a clinical degree as well as, or in addition to, a research degree. Should NIH be offering a public health degree? Would impact be highest if a graduate program were restricted at least initially to training only in bioinformatics or only in biophysics?

—Lee E. Eiden, NIMH

—For follow-up, see "NIH Morphs Graduate School Idea," p. 13. —Ed.

E-BIOMED
continued from page 1

GenBank, and Pat Brown of Stanford (Calif.) University. "Within the E-biomed system," he maintained, "journal identity and hierarchy will persist."

"Money," said Hunter of Elsevier, which publishes 350 life sciences journals, including *Lancet* and *Cell*, "is at the heart of a lot of the concern. There's really a lot of desktop access now. The distinction is whether it's free or not." Elsevier's journals, she said, have been available on the Internet since 1991—with more than 3.5 million users and nearly a million articles in its database.

Waltham observed that the scientific publishing community had already begun to embrace Internet publishing and its attendant licensing complexities and predicted that "with or without E-biomed," free, wide access would eventually emerge. "It was a slowly rolling ball," she said, but a "firm kick" has sent it flying into cyberspace—"hopefully in the right direction," she cautioned.

The "firm kick"—"E-biomed: A Proposal for Electronic Publications in the Biomedical Sciences"—was launched May 24 from Varmus' NIH web site and within a month had compelled hundreds of people around the globe to respond. Some responses were terse, some elaborate; many bordered on hyperbole to describe their support, opposition, or reservations. (See **<http://www.nih.gov/welcome/director/ebiomed/ebiomed.htm>** for the proposal and links to posted comments and a June 20 addendum responding to repeating themes within the comments received.)

The panel discussion, which was arranged by a science writers' group and held at Lister Hill the last evening in June, did not reflect the range of opinion expressed online, the greater part of which was exhilaration, praise, and offers to participate. Rather, many of the negative reactions and misperceptions posted at the web site—and answered online by Varmus and his colleagues—were echoed by panelists and members of the audience. These were largely concerns about the undermining of peer review and the quality of scientific literature, dangers attending unreviewed clinical research reports on the web, bankrupting existing publications, the costs of E-biomed, access disparities among "have and have-not" nations and individuals, and NIH's assuming monopoly control over biomedical publishing.

The proposal itself commits NIH to provide "financial, technical, and administrative assistance to initiate" an E-biomed program. It emphasizes the need for extensive partnering with existing journals and for international collaboration.

Two Paths to E-Print

The proposal envisions speed, diversity, and expandability as concomitant benefits of a two-tiered system for getting research reports published electronically and disseminated worldwide. One route duplicates in cyberspace what currently exists in paper: Investigators submit their manuscripts to the journal of their choice (if the journal of their choice has indeed opted to participate in E-biomed); the journal's editorial board then reviews the submission in its usual rigorous manner. Stringent editorial board review would apply as well in the case of any new electronic-only journals created specifically to exist in the E-biomed environment.

The second route involves no peer review—only minimal screening to ensure that the subject matter of the submitted report is appropriate for the web site and contains nothing pornographic, libelous, or otherwise outrageous. It would then pass into an unreviewed repository of biomedical reports. "Negative" results, technique refinements, and other writings not considered a priority for publication by many journals could thus be made available to an interested audience with otherwise limited means of exposure to the information.

During his panel presentation, Varmus emphasized the fluid nature of the medium as a boon to scientific reporting. Free of the space and two-dimensional constraints of print, investigators could embellish their electronic reports with color photographs, charts, movies, and extensive datasets—presented in layered fashion, so that readers with greater interest might with a simple click go deeper into the subject. Also, critical comments, revisions, and retractions from readers and authors could be appended to papers.

Dissemination and Control

Perhaps the greatest appeal of E-biomed to authors is that it affords the widest dissemination possible of their findings—the essential objective of science reporting. "Scientists don't make money from publishing their results; they want their results to be seen by as many people as possible," Varmus observed.

Journals that decline to participate in E-biomed for fear of loss of revenues may find that authors opt to submit their manuscripts elsewhere. Smaller specialty journals that may be the mainstay of a professional society's coffers will be placed between the proverbial "rock and a hard place," *Nature*'s Waltham later said. "If they join [E-biomed)], they'll lose subscription fees; if they don't, they'll lose their manuscript stream."

Hogan of AAI, which has published *The Journal of Immunology* since 1915, warned that publications will "go under" and that NIH could become the "sole supplier of scientific content," with the consequent "loss of peer review independent of government" and "inconstant federal funding in lean times."

Varmus reiterated, "We are not the owner or publisher" of E-biomed. "No one," he added, "worries about 'takeover' with GenBank or PubMed—everyone appreciates them, and E-biomed would be the same thing."

The success of E-biomed depends on stringent peer review by participating journals, he said. He, noted, too, that the quest for international partners has met with considerable interest from the European Molecular Biology Organization, the European Molecular Biology Laboratory, and the European Bioinformatics Institute.

Repository Contradictions

The nonreviewed or repository component of the E-biomed proposal drew contradictory reactions. It was viewed, variously, as a nonthreatening convenience and as a potential source of "criminally inaccurate junk." Both appraisals stemmed from its similarities to an existing database established by physicists in 1981, based at the Los Alamos National Laboratory, and supported by the National Science Foundation and the Department of Energy (see <**http://xxx.lanl.gov**>).

An electronic archive and distribution server for research papers in physics and related disciplines, its contents are determined by the scientists who use it. Authors submit papers at will and may update them as they choose; users can register to receive notice of new submissions in their interest areas.

Several individuals pointed out that this "preprint archive" has been happily coexisting with peer-reviewed physics journals for nearly a decade to the benefit of the physics community and the detriment of no one. And panelists Hogan and Waltham declared that their publications would have no problem with the preprint, or repository, aspect of E-biomed, although Hunter observed—and others agreed—that the communities of physicists and biologists are different.

The nature of their research reports is also different, individuals noted both during the session and in responses sent to the E-biomed web site. Many considered unreviewed reports in the realm of clinical research a potential hazard to the public health, especially if they are seen to have the "NIH imprimatur." They also feared the repository could be used to promote commercial interests.

Varmus agreed that flawed information in clinical areas could be a problem, but noted that most scientists would not willfully associate themselves with inaccurate data and that the repository material—unlike much other health information on the Internet—would clearly state its source and be conspicuously labeled "nonreviewed." Moreover, by its very nature, the repository allows for speedy commentary and follow-up by other researchers and by the original authors—and, therefore, for online critical review by experts in the field.

Overall, the legitimate benefits of the repository outweigh its pitfalls, he said, and different measures might be taken in its pilot phases to minimize the pitfalls, perhaps by limiting the subject matter initially.

What Price E-biomed?

The bottom line and who would pay was perhaps the most contentious subject of the evening.

NIH currently pays more than $100 million for subscriptions to journals, library copying, and other costs related to "getting our results out to the public," Varmus said. He estimated that setup and operating expenses to be shared by NIH and its E-biomed partners would be about $2–$3 million.

It would cost between $200 and $1,000 to process an article in the E-biomed system, including the costs of distributing manuscripts to reviewers, collating comments, and coding and scanning for the web, he said. Authors could pay that cost—with a small fee paid to the journal upon submission and a larger fee upon acceptance. The author, ideally, would retain copyright.

Hogan maintained that moving from print to electronic publishing would not lower costs, as Varmus contended, but merely shift them. Hunter argued that not all nations are electronically advanced and not all authors can afford the fees. Varmus observed that a fee waiver would likely be part of the E-biomed apparatus. He argued that "Net connections—which NLM is helping set up [in other parts of the world]— are cheaper and faster."

Loss of library subscriptions and loss of licensing fees for access to electronic versions of journal articles was viewed, however, as a death knell for many publications, especially those with a narrow focus. And well-heeled journals that opt not to join E-biomed could conceivably sustain a large enough circulation decrease to affect advertising revenues.

"We're heavily dependent on ads, which subsidize our low sub[scription] rates," noted *Nature*'s Waltham. "The journal price would have to go up if the ads go down—which is why we watch this initiative with interest."

What Now?

Waltham later said that *Nature*'s participation in E-biomed could be "negotiated," based on "conditions of fairness" she declined to elaborate. Until then, she said, "we can afford to be cautious. We don't need to be the first ones in." The journal's huge subscription base, multidisciplinary coverage, and "value added" front half—the news, views, and commentaries—will keep its authors and readers loyal, she said.

She surmised that E-biomed will indeed be launched but hesitated to predict how "biologists will behave" in the face of it.

Varmus told the group that he and his collaborators will proceed "relatively slowly," initiating E-biomed in the "next year or two." But he indicated that the project is in motion. "We're talking to some adventurous souls who'd like to create a new E-biomed journal, and we're also starting work on the repository," he said. ■

Suggested Composition of an E-biomed Board

The E-biomed proposal enlists a "Governing Board" (later referred to as an "advisory board" in the addendum) that would oversee general E-biomed operations, policies, and rules regarding submissions of unedited reports into the E-biomed repository—not the operations of the individual editorial boards within E-biomed. Its composition and the boundaries of its authority are included among a list of issues to be resolved within the international scientific community. During his presentation at Lister Hill, NIH Director Harold Varmus suggested this blueprint for the board's composition:

Geographic Representation

United States	4
Europe	4
Asia/Pacific	2
Africa	1
South America	1

Special Interests

Scientific Societies	3
Commercial Interests	3
General public and advocacy groups	3
Libraries	2

Sponsors (like NIH): ad hoc

New Fogarty Scholars: Lofty Pursuits Grounded in the Intramural Research Program

Thirty years ago, the year after the establishment of both the Fogarty International Center (FIC) and the scholars program bearing its name, the first Fogarty Scholars-in-Residence arrived at the NIH Bethesda campus. They continued to arrive thereafter—at an average rate of eight a year—staying from six to 12 months, generally in two or three divided visits. For the most part, they remained immersed in their individual research pursuits during their NIH sojourn.

"The Fogarty Scholars-in-Residence," recalls Phil Chen, who oversees the newly reconstituted Fogarty Scholars Program, "were an elite group, cloistered in silent splendor on a hilltop. They were funded in isolation [from the rest of the NIH research community] and did not interact very much, except, perhaps, for a workshop or two."

This is not to say that they were not productive: Between 1991 and 1995, for instance, the Fogarty Scholars collectively wrote 185 papers, 30 chapters, and two books and presented 136 lectures and seminars at NIH and 231 elsewhere. Among research accomplishments directly related to the work they did on campus during those years were tracking the underlying mechanism of alcohol intoxication, using SIV as a model to determine the genes involved in clinical HIV, isolating the gene linked to acute myelogenous leukemia in children with Down's syndrome, determining how a fatty acid analog of vasoactive intestinal peptide protects nerve cells and memory, and homing in on abnormal folding of the epithelial cell protein that regulates chloride ion conductance as the molecular basis of cystic fibrosis—to name a very few.

For the last year and a half, however, criteria for selection as a Fogarty Scholar (no longer "in residence") are not only "scientific and intellectual excellence" and "professional stature in [one's] field," but also the "capacity to interact with the NIH scientific community . . ." and "evidence of planned interaction with one or more Special Interest Groups."

The new program, while preserving the Fogarty name, is no longer a creature of the FIC but, reflecting its changed and interactive nature, now resides within the Intramural Research Program. Chen, senior advisor to the deputy director for intramural research, chairs the new Fogarty Scholars Review Panel.

The new program, Chen says, is an "honor without the honorarium." The scholars are no longer housed either at the Stone House or the Building 20 apartment complex (now torn down to make room for the new Clinical Research Center). Nor do they receive the $90,000/year FIC stipend plus travel expenses that used to pay the way of Fogarty scholars. They are now funded by the summoning institute(s), under various appointment mechanisms. The involved institutes provide the office and laboratory space and other research support. The scholars also receive two tangible tokens of their Fogarty award—a certificate signed by the NIH director and a desk medal. And, Chen adds, the Fogarty appointment also "looks very good on one's c.v."

Fran Pollner

Phil Chen

The revamping of the Fogarty Scholars Program was engineered by NIH Director Harold Varmus in response to the recommendations of an outside group he'd appointed—the External Advisory Panel to Review NIH/FIC International Programs—which issued its report in September 1996 after a six-month study.

Instead of meeting twice a year to consider candidates, the Fogarty Scholars Review Panel scores prospective candidates and conducts its business by e-mail as nominations arise. Nominations are made by either an institute director or the chair of an IRP Special Interest Group (see "Interest Group Directory," pages 8-12). In addition to the accomplishments showcased in their vitae, candidates indicate the kinds of explorations they anticipate conducting while at NIH and with whom. Letters of support from likely collaborators typically accompany nominating documents. Nominations may be submitted at any time to Phil Chen, Building 1, Room 140, 496-3561, or fax 402-0027.

The New Generation

It was in December of 1997 that the first of the new Fogarty Scholars was voted on—by what was at that time a "preliminary and partial panel" that met just before the NIH director's announcement of new guidelines and the subsequent naming of the full panel. As of this writing, eight scholars have won Fogarty appointments under the new criteria. A glimpse of each follows.

COLYN CRANE-ROBINSON, professor of biochemistry at the University of Portsmouth, England, whose expertise in gene regulation in general and the relationship of transcriptional activity to histone acetylation in particular generated enthusiasm for collaboration among NICHD and NIDDK scientists and members of the Chromatin and Chromosomes and Molecular Biology/Biochemistry Interest Groups. **Dates on Campus:** April 9 to August 8, 1998; May 1 to July 31, 1999; March 1 to May 31, 2000 (tentative).

C. DAVID MARSDEN, dean of the Institute of Neurology at Queen Square, London, had proposed to do research in the area of apraxia praxis in higher motor organization and was scheduled for a sabbatical year here starting September 1, 1998, but died three weeks after his arrival. His primary host was NINDS and his anticipated collaborations centered around the Integrative Neuroscience and Neurobiology Interest Groups.

WILFRED DONALD STEIN, professor of biophysics at Hebrew University of Jerusalem, whose research in multidrug resistance had been the basis for previous collaborative work with NCI investigators, is hosted by NCI to do further collaborative work not only with NCI colleagues but also NICHD, NIAID, and NHLBI scientists and the Drug Discovery Interest Group and the Breast Cancer Think Tank. He describes his work as "centering around the application of quantitative analysis to medico-biological problems"— the basis for his membrane transport studies that spanned the decades from the '60s through the '90s. **Dates on Campus:** two six-month appointments from September 1, 1998, to February 28, 1999, and from March 1, 2000, through August 2000.

JAN-ÅKE GUSTAFSSON, professor and chairman of medical nutrition and director of the Center for Biotechnology at the Karolinska Institute in Stockholm, was hosted by NICHD and was affiliated with the Endocrinology, Neuroimmune Interactions, and Molecular Psychiatry Interest Groups. An expert in nuclear hormone receptor superfamilies, his most recent accomplishment was cloning—and identifying the three-dimensional structure of—the gene for a second form of estrogen receptor, called estrogen receptor beta.
Dates on Campus: June 10, 1999, to September 30, 1999.

Fran Pollner

Fogarty Scholar Jan-Åke Gustafsson delivered a Wednesday Afternoon Lecture on May 19 on "New Dimensions in Nuclear Receptor Signaling."

LUDWIG FEINENDEGEN, was director of the Institute of Medicine Research Center in Juelich, Germany, and director of nuclear medicine at the Heinrich Heine University Hospital in Dussel-dorf before coming to the United States, where he is a senior scientist at the Brookhaven National Laboratory in Upton, New York, and an assignee at the DoE Office of Health and Environmental Research in Washington. Hosted by the Clinical Center and affiliated with the PET and DNA Repair Interest Groups, his research at NIH focuses on Auger-electron-emitting radionuclides attached to gene-specific, nucleic-acid probes as vehicles to produce sequence-directed single- and double-strand DNA breaks.
Dates on Campus: June 21, 1998, to July 22, 1999.

Fran Pollner

Following the lecture, Gustafsson discussed "Estimating Incidence of Dementia Subtypes: Assessing the Impact of Missed Cases," a winning poster in the FARE (Fellows Award for Research Excellence) 99 competition, with author Grant Izmirlian (right), an NIA fellow.

TOSHIHARU NAGATSU, professor of molecular genetics and director of the Institute for Comprehensive Medical Science, Fujita (Japan) Health University, is hosted by NICHD and affiliated with the Nerve Growth Factor (NGF) and Genetics Interest Groups. He is expected to collaborate in ongoing research involving NGF-induced increase in calcium uptake and its coupled action on catecholamine release in the PC12 cells.
Dates on Campus: The months of July and August 1999, 2000, and 2001.

ROBERTO DI LAURO, a professor of genetics at the University of Naples in Italy and a marine biologist at Stazione Zoologica, is a developmental biologist who has identified transcription factors necessary for thyroid development and generated mouse models for hereditary thyroid dysgenesis and cleft palate. Hosted by NCI, letters in support of his nomination indicate interactions with the Mouse Club and the Transcription Factors Interest Group—as well as the Cell Biology, Immunology, Molecular Biology/Biochemistry, and Developmental Biology Interest Groups.
Dates on Campus: July 15, 1999, through November 15, 2000, divided into three four-month visits.

GEORGE HESS, professor of biochemistry at Cornell University in Ithaca, New York, is hosted by NINDS and affiliated with the Fluorescence Interest Group. An expert in the development and use of photoactivatable ("caged") neurotransmitters for biophysical studies of neurotransmitter receptors and neuronal circuit mapping, Hess will be collaborating with NIH scientists on the use of a caged version of the excitatory amino acid receptor agonist kainate and the study of the role of kainate receptors in seizures, epileptogenesis, and other amygdala-related behaviors.
Dates on Campus: April 1,1999, to March 30, 2000, divided into intermittent visits.

NICOLE LE DOUARIN, director of the Institute of Embryology at the National Center for Scientific Research at the College of France, Nogent-sur-Marne, and professor of cellular and molecular embryology at the College of France, is a developmental biologist who created the quail-chick chimera and whose pioneering work in mesodermal and neural crest development in the vertebrate embryo is now in its fifth decade. She is sponsored by NICHD and is expected to interact with the Mouse Club and the Nerve-Muscle Interest Group, as well as the Genetics, Xenopus/Zebrafish, Cornea, and Developmental Biology Interest Groups.
Dates On Campus: During 2001, as yet unspecified. ■

—Fran Pollner

Meeting to Counter Osteoarthritis

July 23–24, 1999
8:00 a.m.–5:00 p.m.
NIH Natcher Conference Center, Building 45

Stepping Away from OA: A Scientific Conference on the Prevention of Onset, Progression, and Disability Of Osteoarthritis

This conference, organized by NIAMS, is designed to stimulate scientific collaboration. Researchers from various fields will review the current state of science regarding prevention and treatment of osteoarthritis (OA), examine prevention interventions, and identify opportunities for further investigation.

An additional public session entitled "What You Can Do: Preventing Onset, Progression, and Disability of OA" will be held Saturday, July 24, 8:00 am–12:00 noon.

Register on the web at
<http://www.nih.gov/niams/news/oa
or call 301-495-5870. The conference will be videocast live via the web at this website. ■

Interinstitute Interest Group Directory

Web Access

Note: Although not all the sites are up to date, nearly all the Interest Groups have web sites that can be accessed through the NIH Home Page (<http://www.nih.gov/>) by clicking on "Scientific Resources," then "Special Interest Groups," and then the targeted group(s).

Major Interest Groups

Cell Biology Interest Group
Meeting time: Once every four months
Meeting place: Building 32, Library
Contact: Jennifer Lippincott-Schwartz
Phone: 402-1010; 402-1009
E-mail: <jlippin@helix.nih.gov>
Listserv: subscribe to CELBIO-L

Clinical Research Interest Group
Meeting time and place: sponsors Clinical Center Grand Rounds once every other month
Contact: Cliff Lane
Phone: 496-7196
E-mail: <clane@nih.gov>

Genetics Interest Group
Meeting time: Usually second Tuesday, 4:00 pm
Meeting place: Building 49, Conference Room A and B
Contact 1: Heinz Arnheiter
Phone: 496-1645
E-mail: <heinz@codon.nih.gov>
Contact 2: Beverly Mock
Phone: 496-2360
Listserv: subscribe to MAJORDOMO@NCHGR.NIH.GOV
post to GIG@NCHGR.NIH.GOV

Immunology Interest Group
Meeting time: Each Wednesday (except summer), 4:15 pm
Meeting place: Building 10, Lipsett Auditorium
Contact: Warren Leonard
Phone: 496-0098
E-mail: <wjl@helix.nih.gov>
ListServ: subscribe to IMMUNI-L at Listserv@LIST.NIH.GOV

Molecular Biology/Biochemistry Interest Group
Meeting time: Yearly to consider speakers
Meeting place: Building 8, Room 122
Contact: Reed Wickner
Phone: 496-3452
E-mail: <wickner@helix.nih.gov>

Neurobiology Interest Group
Meeting time: Friday, 4:30 pm (usually twice a month)
Meeting place: Cloisters, Rathskeller
Contact 1: Chip Gerfen
Phone: 496-4341
E-mail: <gerfen@helix.nih.gov>
ListServ: <http://intra.ninds.nih.gov/nig/>

Structural Biology Interest Group
Meeting time and place: Announced to members by e-mail and regular mail
Contact 1: Adrian Parsegian
Phone: 496-6561
E-mail: <aparsegi@helix.nih.gov>
Contact 2: Marius Clore
Phone: 496-0782
To register for e-mail announcements:
E-mail <cch@discus.niams.nih.gov>

Other Interest Groups

AIDS Interest Group
Meeting time and place: Varies
Contact: Fulvia Veronese
Phone: 496-3677
E-mail: <veronesef@od.nih.gov>
ListServ: subscribe to AIDSINTG-L

Alzheimer's Disease Interest Group
Meeting time: First Thursday (except summer), 9:00 am
Meeting place: Building 41, Room C507 (and videoconferenced to GRC, Baltimore)
Contact: Kathy Flanders
Phone: 496-5453
E-mail: <flanderk@dce41.nci.nih.gov>

Apoptosis Interest Group
Meeting time: First Monday, 4:00 pm
Meeting place: Building 30, Conference Room 117
Contact: Yves Pommier
Phone: 496-5944
E-mail: <yp4x@nih.gov>

Behavioral and Social Sciences Interest Group
Meeting time: Varies, in the fall and spring
Meeting place: See NIH Calendar of Events
Contact 1: Jaylan Turkkan
Phone: 443-1263
E-mail: <jaylan@nih.gov>
Contact 2: Ronald Abeles
Phone: 594-5943
E-mail: <abelesr@exmur.nia.nih.gov>

BSSR Methodology and Measurement Interest Group
Meeting time: First or second Tuesday, 8:30 am
Meeting place: Building 45, Room 3AS10
Contact: Jared Jobe
Phone: 496-3137
E-mail: <Jared_Jobe@nih.gov>

Biocomplexity Interest Group
Meeting time: One Thursday a month (except July and August), 4:00 pm
Meeting place: Building 10, Rose Room
Contact: Julio Licinio
Phone: 496-6885
E-mail: <licinio@codon.nih.gov>
ListServ: subscribe to BCMPLXTY

Bioethics Interest Group
Meeting time: First Monday (except second Monday, September), 3:00 pm
Meeting place: Natcher, Room D, or Building 31, conference room 7
Contact: Miriam Kelty
Phone: 496-9322
E-mail: <mk46u@nih.gov>

Bioinstrumentation Interest Group
Meeting time: First Tuesday, 2:00 pm
Meeting place: Building 13, Room 3W54
Contact: Paul Smith
Phone: 435-1945
E-mail: <pdsmith@helix.nih.gov>

Biophysics Interest Group
Meeting time: Varies
Meeting place: Varies, mostly Building 10, Bunim Room
Contact: Peter Basser
Phone: 435-1949
E-mail: <pjbasser@helix.nih.gov>

Birth Defects and Teratology Interest Group
Meeting time: Quarterly seminars
Meeting place: Videoconference between Bethesda and Research Triangle Park, N.C.
Contact 1: Dorothea de Zafra
Phone: 443-6516
E-mail: <ddezafra@willco.niaaa.nih.gov>
Contact 2: Steering Committee members (list available from above)

Breast Cancer Think Tank
Meeting time and place: Varies
Contact 1: JoAnne Zujewski
Phone: 402-0985
E-mail: <zujewski@nih.gov>
Contact 2: Patricia Steeg
Phone: 496-9753

Calcium Interest Group
Meeting time: Usually Tuesday, 3:00 pm
Meeting place: Building 49, Room 1A50
Contact 1: Arthur Sherman
Phone: 496-4325
E-mail: <asherman@nih.gov>
Contact 2: Indu Ambudkar
Phone: 496-1478
ListServ: Subscribe to CALCIUM-L

Cell and Molecular Neuroscience Interest Group
Meeting time and place: Varies
Contact: Chip Gerfen
Phone: 496-4341
E-mail: <gerfen@helix.nih.gov>

Chemistry Interest Group
Meeting time: (Almost) Monthly seminars
Meeting place: Varies
Contact 1: John Schwab
Phone: 594-5560
E-mail: <schwabj@nigms.nih.gov>
Contact 2: Kenneth Kirk
Phone: 496-2619

Chromatin and Chromosomes Interest Group
Meeting time: Every other Thursday (except summer), 11:00 am
Meeting place: Building 32T, Conf. Room
Contact: David Clark
Phone: 496-6966
E-mail: <djclark@helix.nih.gov>

Clinical Immunology Interest Group
Meeting time: Monthly, First Friday, 11:00 a.m.
Meeting place: Building 10, Room 11S235
Contact: Oral Alpan
Phone: 402-3447
E-mail: <oalpan@nih.gov>

Clinical Pharmacology Interest Group
Meeting time: Quarterly, 7:00 pm
Meeting place: Varies
Contact: Donna Shields
Phone: 435-6618
E-mail: <dshields@mail.cc.nih.gov>

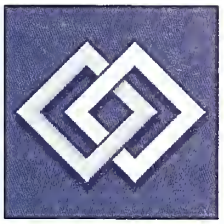
Cornea Interest Group
Meeting time: First Monday, 8:30 am
Meeting place: Building 6, Room 409
Contact 1: Joram Piatigorsky
Phone: 496-9467
E-mail: <joram@helix.nih.gov>
Contact 2: Janine Davis
E-mail: <davisj@intra.nei.nih.gov>

Cultural and Qualitative Research Interest Group
Meeting time: First Wednesday, 9:00 am
Meeting place: Neuroscience Center, Rooms B1/B2
Contact 1: Suzanne Heurtin-Roberts
Phone: 443-0639
E-mail: <sheurtin@willco.niaaa.nih.gov>
Contact 2: Wendy Smith
Phone: 443-8771

Cytokine Interest Group
Meeting time: Quarterly symposia
Meeting place: Varies
Contact 1: Warren Leonard
Phone: 496-0098
E-mail: <wjl@helix.nih.gov>
Contact 2: Rachel Caspi
Phone: 496-6409

Developmental Biology Interest Group
Meeting time and place: Varies
Contact 1: Tom Sargent
Phone: 496-0369
E-mail: <tsargent@nih.gov>
Contact 2: Peggy Zelenka
Phone: 496-3053

DNA Repair Interest Group
Meeting time: Third Tuesday, 12:30 pm
Meeting/Videoconference: Natcher, Room H; GRC (Baltimore), Room 1E03; FCRDC, Building 549, Conference Room A; NIEHS (Research Triangle Park, NC) Building 101, Room B200; State University of New York, Stony Brook; University of Texas, MD Anderson Cancer Center, Smithville, TX; Lawrence Livermore (CA) National Laboratory; University of Michigan, Ann Arbor
Contact 1: Kenneth Kraemer
Phone: 496-9033
E-mail: <kraemerk@nih.gov>
Contact 2: Vilhelm Bohr
E-mail: <vbohr@nih.gov>



Domestic Violence Research Interest Group
Meeting time and place: To be announced
Contact: John Umhau
Phone: 496-7515
E-mail: <umhau@nih.gov>

Drosophila Interest Group
Meeting time: Third Tuesday, 1:15 pm
Meeting place: Building 6B, Room 4B429
Contact 1: Sue Haynes
Phone: 295-9791
E-mail: <shaynes@usuhs.mil>
shaynes@usuhs.mil
Contact 2: Jim Kennison
E-mail: <kennisoj@exchange.nih.gov>

Drug Discovery Interest Group
Meeting time: Usually one Thursday a month, 3:00 pm
Meeting place: Building 37, Room 5A21
Contact: John Weinstein
Phone: 496-9571
E-mail: <weinstein@dtpax2.ncifcrf.gov>

Economics Interest Group
Meeting time and place: Varies
Contact 1: James A. Schuttinga
Phone: 496-2229
E-mail: <js41z@nih.gov>
Contact 2: Agnes Rupp
E-mail: <ar24f@nih.gov>

Endocrinology Interest Group
Meeting time and place: Varies
Contact 1: George Chrousos
Phone: 496-4686
E-mail: <George_Chrousos@nih.gov>
Contact 2: Phil Gold
Phone: 496-1945

Epidemiology and Clinical Trials Interest Group
Meeting time and place: Varies
Contact 1: Martina Vogel-Taylor
Phone: 496-6614
E-mail: <martinav@nih.gov>
Contact 2: Bill Harlan
Phone: 496-1508
ListServ: subscribe to Epidem-L at listserv@list.nih.gov

Interinstitute Interest Group Directory

Epilepsy Interest Group
Meeting time: Tuesday (weekly to bi-weekly), 8:00 am
Meeting place: Building 10, Room 5S235
Contact: Marianna Spanaki
Phone: 496-0056
E-mail: <mspanaki@codon.nih.gov>

Extracellular Matrix Interest Group
Meeting time: Second Friday, 11:00 am
Meeting place: Natcher or Building 30
Contact 1: William Stetler-Stevenson
Phone: 496-2687
E-mail:<sstevenw@exchange.nih.gov>
Contact 2: Larry Wahl
E-mail: <wahl@yoda.nidr.nih.gov>

Fluorescence Interest Group
Meeting time: second and fourth Friday, 4:00 pm
Meeting place: Building 10, usually Room 5N264
Contact: Jay Knutson
Phone: 496-2557
E-mail: <jaysan@helix.nih.gov>
Contact 2: Dan Sackett
Phone: 594-0358

Gene Therapy Interest Group
Meeting time: Second and fourth Thursday, 2:00 pm
Meeting place: Building 10, Lipsett Auditorium
Contact 1: Richard Morgan
Phone: 402-1833
E-mail: <rmorgan@nhgri.nih.gov>
Contact 2: Fabio Candotti
Phone: 402-1833

Genomics and Bioinformatics Interest Group
Meeting time: Usually one Thursday a month, 3:00 pm
Meeting place: Building 37, Room 5A21
Contact: John Weinstein
Phone: 496-9571
E-mail: <weinstein@dtpax2.ncifcrf.gov>

Glia Club
Meeting time: Bimonthly, second Tuesday, 4:00 pm
Meeting place: Building 36, Room 1B13
Contact 1: Vittorio Gallo
Phone: 402-4776
E-mail: <vgallo@helix.nih.gov>
Contact 2: Joan Schwartz
Phone: 496-4049

Glycobiology Interest Group
Meeting time and place: Varies
Contact: Diana Blithe
Phone: 435-6990.
E-mail: <blithed@nih.gov>
ListServ: Subscribe to GLYCO-L@LIST.NIH.GOV

GTP Binding Proteins Interest Group
Meeting time: Second Friday, 2:00 pm
Meeting place: FAES Social & Academic Center
Contact: R. Victor Rebois
Phone: 496-2007
E-mail: <rebois@box-r.nih.gov>

Hard Tissue Disorders Interest Group
Meeting time: Day varies, 9:30 am
Meeting place: Building 30, Room 106
Contact: Pamela Robey
Phone: 496-4563
E-mail: <probey@yoda.nidr.nih.gov>
Contact 2: Michael Collins
Phone: 496-4913

Head and Neck Cancer Interest Group
Meeting time: To be announced
Meeting place: Building 30, Room 117
Contact: Wendy Weinberg
Phone: 594-5270
E-mail: <wweinberg@yoda.nidr.nih.gov
Contact 2: Glenn Kroog
Phone: 594-0212

History of Biomedical Research Interest Group
Meeting time: Second Tuesday, 3:30 pm
Meeting place: Varies; check web site
Contact 1: NIH History Office
Phone: 496-6610
Contact 2: Victoria Harden
E-mail: <hardenv@od31tml.od.nih.gov>

Human Development Across the Lifespan Interest Group
Meeting time and place: By e-mail alert
Contact: Kim Roberts
Phone: 496-0420
E-mail: <kim_roberts@nih.gov>

Image Processing Interest Group
Meeting time and place: Varies
Contact 1: Benes Trus
Phone: 496-2250
E-mail: <trus@helix.nih.gov>
Contact 2: Calvin Johnson
Phone: 402-3045

Integrative Neuroscience Interest Group
Meeting time: Alternate Thursdays, 4:00 pm
Meeting Place: Building 49, Room 1A51
Contact: Betsy Murray
Phone: 496-5625, X-227
E-mail: <eam@nl.nimh.nih.gov>
ListServ: subscribe to JLS@LSR.NEI.NIH.GOV

In Vivo NMR Interest Group
Meeting time: Varies
Meeting place: Building 10, Room B1N256
Contact: Jeff Duyn
Phone: 402-1981
E-mail: <jhd@helix.nih.gov>
Website: <http://mri.info.nih.gov>

Java Interest Group
Meeting Time: Second Thursday, 4:00 pm
Meeting place: Building 12B, second floor Conference Room
Contact: Ronald Taylor
Phone: 496-2588
E-mail: <rtaylor@helix.nih.gov>

Lambda Lunch (Bacterial and Phage Genetics)
Meeting time: Each Thursday, 11:00 am
Meeting place: Building 36, Room 1B13
Contact: Susan Gottesman
Phone: 496-3524
E-mail: <susang@helix.nih.gov>
Anonymous FTP site:FTP.CU.NIH.-GOV
directory "LAMBDA_LUNCH"

Lymphoma and Leukemia Interest Group
Meeting time: Third Thursday, 4:00 pm (September–June)
Meeting place: Building 10, Room 2C116
Contact 1: Larry Kwak
Phone: 301-846-1607
E-mail: <kwak@mail.ncifcrf.gov>
ListServ: LLig-1

Mass Spectrometry Interest Group
Meeting time: First and third Thursday, 11:00 am
Meeting place: Building 10, Room 7C101
Contact: Lewis Pannell
Phone: 402-2196
E-mail: <L_Pannell@nih.gov>

Microarray Users Group
Meeting time and place: Varies
Contact 1: Katherine Peterson
Phone: 496-3059
E-mail: katherine_peterson@nih.gov
Contact 2: Laurie Whitney
Phone: 496-9009

Microtubule Interest Group
Meeting time: Every other Friday, 4:00 pm
Meeting place: Building 10, Room 9S235 (Bunim Room)
Contact: Dan Sackett
Phone: 594-0358
E-mail: sackettd@mail.nih.gov

Mitochondria Interest Group
Meeting time: First Monday, 3:00 pm
Meeting/Videoconference Locations: Bethesda, Natcher, Room H; NIEHS, Research Triangle Park, NC; Gerontology Research Center, Baltimore; University of California at Davis; University of Maryland, Baltimore
Contact: Steve Zullo
Phone: 435-3576
E-mail: <zullo@helix.nih.gov>

Molecular Modeling Interest Group
Meeting time: See <http://mignet.nih.gov/MMIG>
Meeting place: Building 12A, conference rooms
Contact: Peter Steinbach
Phone: 496-1100
E-mail: <staff@mmignet.nih.gov>

Molecular Psychiatry Interest Group
Meeting time: Monthly, Thursday (with summer break), 4:00 pm
Meeting place: Varies
Contact: Julio Licinio
Phone: 496-6885
E-mail: <licinio@nih.gov

Motility Interest Group
Meeting time: First Monday, 4:00 p.m.
Meeting place: Building 10, Bunim Room (9S235)
Contact: Jim Sellers
Phone: 496-6887

Mouse Club
Meeting time: First Tuesday, 4:00 pm
Meeting place: Building 31, Room 2A52, or Building 6A, Room 405
Contact: Heiner Westphal
Phone: 402-0545
E-mail: <hw@helix.nih.gov>

Multisensory Interest Group
Meeting time: Alternate Thursdays, 4:00 pm
Meeting place: Building 15K, ground-floor conference room
Contact 1: Peter Grossenbacher
Phone: 496-7672
E-mail: <Peter_Grossenbacher@nih.gov>
Contact 2: Scott Adams
Phone: 496-7874

Mycobacterial Interest Group
Meeting time: Alternate Mondays, 10:30 am
Meeting place: Building 29, Room 121, or Twinbrook II, 2nd-floor conference room
Contact 1: Todd Primm
Phone: 496-3886
E-mail: <tprimm@niaid.nih.gov>
Contact 2: Clifton Barry
Phone: 435-7509

Nerve-Muscle Interest Group
Meeting time: Alternate Wednesdays, 9:00 am
Meeting place: Building 36, Room 1B07
Contact 1: Matt Daniels
Phone: 496-2898
E-mail: <mdaniels@codon.nih.gov>
Contact 2: Zuhang Sheng
Phone: 435-4596

Neuroimmune Interactions Interest Group
Meeting time: One Tuesday a month (except July and August), 4:00 pm
Meeting place: Building 10, Room 11S235
Contact: Craig C. Smith
Phone: 496-4561
E-mail: <ccs@codon.nih.gov>

Neuroinformatics Interest Group
Meeting time: Second Tuesday, 12:00 noon
Meeting place: Building 49, Conference Room 1A/B.
Contact 1: Rochelle Small
Phone: 402-3464
E-mail: <rochelle_small@nih.gov>
Contact 2: Yuan Liu
Phone: 594-6382

Pain Interest Group
Meeting time: Second Monday, 3:00 pm
Meeting place: Building 49, Conference Room A
Contact: M. A. Ruda
Phone: 402-4980
E-mail: <maruda@dir.nidcr.nih.gov>
ListServe: PAINGROUP-L@LIST.NIH.GOV

PET Interest Group
Meeting time: Each Friday, 2:00 pm
Meeting place: Building 10, Room 1C520.
Contact: Peter Herscovitch
Phone: 402-4297
E-mail: <herscovitch@nih.gov>

Pigment Cell Research Interest Group
Meeting time: Third Monday, 3:00 pm
Meeting place: Building 49, Conf. Room A
Contact 1: Bill Pavan
Phone: 496-7584
E-mail: <bpavan@nhgri.nih.gov>
Contact 2: Vincent Hearing
Phone: 496-1564

Prostate Cancer Interest Group
Meeting time: one Tuesday a month, 4:30 pm
Meeting place: Building 10, 2 East Conference Room
Contact 1: Marston Linehan
Phone: 496-6353
E-mail: <wml@nih.gov>
Contact 2: Michael Emmert-Buck
Phone: 496-2912

Protein Folding Journal Club
Meeting time: Each Thursday (usually October–June), 4:00 pm
Meeting place: Building 12A, Room 3026
Contact: Joe Bryngelson
Phone: 435-9231
E-mail: <jdb@helix.nih.gov>

Protein Trafficking Interest Group
Meeting time: Second Tuesday, 3:30 pm
Meeting place: Building 10, Room 9S235
Contact 1: Harris Bernstein
Phone: 402-4770
E-mail: <harris_bernstein@nih.gov>
Contact 2: Peng Loh
Phone: 496-3239

Reactive Oxygen Species Interest Group
Meeting time: Second Friday (Sept.-May), 4:00 pm
Meeting place: Building 49, Conference 1A-B
Contact 1: Daniel Gilbert
E-mail: <dangil@helix.nih.gov
Contact 2: C. C. "Mike" Chiueh
E-mail: <chiueh@helix.nih.gov>

RNA Club
Meeting time: First Tuesday (except August), 4:00 pm
Meeting place: Building 41, Room C509
Contact 1: Carl Baker
Phone: 496-2078
E-mail: <ccb@helix.nih.gov>
Contact 2: Susan Haynes
Phone: 295-9791

Science Writing Interest Group
Meeting time and place: To be announced
Contact 1: Edward McSweegan
Phone: 496-1884
E-mail <emcsweegan@niaid.nih.gov>
Contact 2: Alisa Machalek
Phone: 496-7301

Interinstitute Interest Group Directory

Signal Transduction Interest Group
Meeting time: Alternate Fridays, 4:30 pm
Meeting place: 5 Research Court, Room 2A08
Contact 1: John Northup
Phone: 496-9167
E-mail: <drjohn@codon.nih.gov
Contact 2: James Battey
Phone: 402-0900

Social Structure & Demographic Issues in Health Interest Group
Meeting time and place: Varies
Contact 1: Laura E. Montgomery
Phone: 436-3650, ext 177
E-mail: <lem3@cdc.gov>

Synaptic and Developmental Plasticity Interest Group
Meeting time: Wednesday, 12:00 noon
Meeting place: Building 49, Room 1A50
Contact 1: Serena Dudek
Phone: 402-4795
E-mail: <dudek@helix.nih.gov>
Contact 2: Bai Lu
Phone: 435-2970

Therapeutic Oligonucleotides Interest Group
Meeting time: Last Thursday, 4:00 pm
Meeting place: Building 30, Room 117
Contact : Yoon Cho-Chung,
Phone: 496-4020
E-mail: <chochung@helix.nih.gov>

Transcription Factors Interest Group
Meeting time: First Thursday (except July-Sept.), 1:30 pm
Meeting place: Building 49, Conference Room B
Contact 1: Stoney Simons
Phone: 496-6796
E-mail: <steroids@helix.nih.gov>
Contact 2: Uli Siebenlist
Phone 496-7662
Listserv: subscribe to TFACTORS

Viral Hepatitis Interest Group
Meeting time: One Monday a month, 3:30 pm
Meeting place: Building 10, Bunim Room (9S235)
Contact: T. Jake Liang
Phone: 496-1721
E-mail: <jliang@nih.gov>

Virology Interest Group
Meeting time: Third or fourth Thursday, 3:30 pm
Meeting place: Building 4, Room 433
Contact 1: Philip Krause
Phone: 827-1922
E-mail: <krause@cber.fda.gov>
Contact 2: Klaus Strebel
Phone: 496-3132
ListServ: Contact <CBuckler@nih.gov>

Washington Area Yeast Club
Meeting time: Second Wednesday, 5:15 pm
Meeting place: Building 6B, Room 4A05
Contact 1: Reed Wickner
Phone: 496-3452
E-mail: <wickner@helix.nih.gov>
Contact 2: Alan Hinnebusch
Phone: 496-4480
E-mail: <ahinnebusch@nih.gov>

WorldWideWeb Interest Group
Meeting time: Second Tuesday, 2:30 pm
Meeting place: Building 10, Lipsett Auditorium
Contact 1: Sandy Desautels
Phone: 402-6553
E-mail: <sandy_desautels@nih.gov>
Contact 2: Dale Graham, DCRT
Phone: 402-1805

Xenopus/Zebrafish Interest Group
Meeting time: Last Friday (except summer), 4:00 pm
Meeting place: Building 6B, Room 429
Contact 1: Brant Weinstein
Phone: 435-5760
E-mail: <bw96w@nih.gov>
Contact 2: Ajay Chitnis
E-Mail: <chitnisa@mail.nih.gov>

X-ray Crystallography Interest Group
Meeting time: Quarterly, announced by e-mail, 2:00 pm
Meeting place: Building 5, Room 127
Contaxt: Xinhua Ji
Phone: (301) 846-5035
E-mail: <jix@ncifcrf.gov>

Addenda

Considering starting a new Interest Group? Contact* Celia Hooper *(fax: 301-571-4357; e-mail:
<hooperc@nih.gov>.

Need to correct your group's listing? Contact CIT's web publishing group:
<publish@cit.nih.gov>.

Who's Doing What?

Need a special cell line? Have questions about a special technique? Want to know who's working on a particular disease or gene?

Search rapidly through 2,603 1998 Annual Reports online to get this type of information. The search is easy (free-form). You can search on any combination you wish: last names, institutes, any word that appeared in the title, keywords, or summary of the research projects. The website is **<http://tango01.cit.nih.gov/**

Branson

Many Thanks: *After speaking at the ceremony here in June to dedicate the cornerstone of the building he called into existence two years ago to spur AIDS vaccine development—now the Dale and Betty Bumpers Vaccine Research Center—President Clinton reached out in gratitude for the work done by NIH scientists. Here he shakes the hand of Joan Schwartz, chief of the NINDS Neurotrophic Factors Section and assistant director of the Office of Intramural Research, as Phil Chen (left), senior advisor for intramural research, and HHS Secretary Donna Shalala look on.*

Branson

Betty Bumpers, Bill Clinton, and former Senator Dale Bumpers (D-Ark) at Vaccine Research Center dedication.

First Genetics Grad

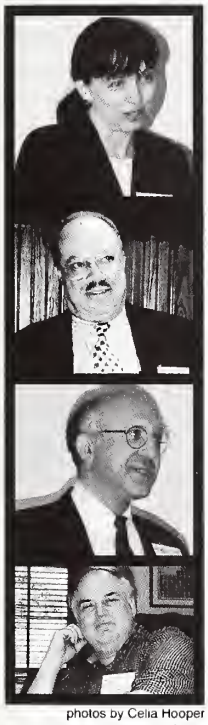
continued from page 1

Celia Hooper

Susan Zullo (right) with Michael Gottesman, deputy director for intramural research

in 1993 and enrolled its first four students in the fall of that year. Zullo is the only one of this pioneering group to go the distance. Those who followed Zullo onto the NIH campus in subsequent years—at the rate of four or five each year (a number she says fits well)—are enjoying not only the benefits of the program itself but of her having cleared the path—along with her mentors and program directors—of some of the hidden obstacles that thwarted travelers along the way.

"At first, it was a free-for-all. You couldn't find your way around Building 10 the first year, much less the campus," she recalled, noting that travel between GW for coursework and NIH for research could involve multiple treks back and forth on a daily basis. But one of the biggest problems initially was being directed to a good mentor—she shuttled between laboratories before landing at the Clinical Gene Therapy Branch of NHGRI, where, under the guidance of lab chief Michael Blaese and principal investigator Richard A. Morgan, she conducted research on novel gene delivery systems. Her doctoral thesis dealt with alphaviruses as gene therapy vectors.



photos by Celia Hooper

Partners in the Program—and the Party: *(top to bottom) Diana Johnson, acting GWU program director; Jim Alexander, deputy director NIH Office of Education; Simeon Taylor, NIDDK former mentor and chairman of the steering committee; Michael Blaese, NHGRI mentor*

Bureaucratic problems in the joint graduate program were cited as a cautionary tale during an NIH-wide town meeting to discuss the idea of an NIH graduate school (see story this page). A fourth-year student said that confusing paperwork and delayed payments (GW provides tuition waivers for coursework and NIH provides research stipends at the pre-IRTA level) had led to a "high dropout rate." Another student noted that newer arrivals have had fewer logistical and pay problems than their predecessors.

Though she was first to face and resolve these snafus, Zullo found the experience of doing research at NIH throughout her years of doctoral coursework wholly exhilarating. "Where else can you be surrounded by this quality of scientists? Where else can you work with the people who developed the technique, discovered the gene, wrote the book? Where else can you go from basic research into the clinic? And there are some wonderful mentors here," she said.

Zullo was awarded a Congressional Science Fellowship that begins September 1. She'll be working with a member of Congress on Capitol Hill, where she hopes to focus on genetics-related funding, mentoring, and discrimination issues, as well as address public misconceptions about clinical gene research. Being at NIH, she said, has shown her the "impact of science policy on science." ■

NIH Morphs Graduate School Idea

Fran Pollner

On the Front Lines: *Harold Varmus (top) and Michael Gottesman fielded questions at the town meeting in May on an NIH graduate school.*

More people registered delight than dejection over the notion of NIH's creating its own graduate school—both at an NIH-wide town meeting May 24 and two weeks later at a meeting of the Advisory Committee to the Director (ACD) of NIH—but the nays had it, anyway.

"The negative votes here count heavily—this is *not* majority rule," NIH Director Harold Varmus told his advisory group after three of its 16 members voted in a straw poll that NIH drop the idea.

"I basically think that [establishing a graduate school] is the right thing to do, but it must be done in the right way," Varmus said, observing that "it's very difficult for us to do something in the intramural research program" in the face of opposition and reservations from members of the extramural research community.

His comments foreshadowed the decision that would emerge several weeks later that "rather than seek degree-granting authority for NIH, we will focus on improving all aspects of our present graduate and postgraduate programs and on improving and forging relationships with partner universities" (see DDIR column, page 2).

That decision was in tune with much of the advice of Princeton (N.J.) University molecular biologist Shirley Tilghman, the ACD's self-described "most vocal critic" of an NIH graduate school—as well as some of the suggestions offered during the town meeting to bring more cohesion to both the training and the social environment of students now enrolled in existing programs on campus.

Varmus and Deputy Director for Intramural Research Michael Gottesman believe that NIH is uniquely qualified to fill gaps in the country's doctoral ranks of individuals versed in bioinformatics, genomics, and clinical research—the three target areas of the proposed graduate school. At the ACD meeting, Tilghman argued that NIH should develop advanced programs to augment the training of those who already have their advanced degrees, not create a whole new graduate school.

At one point, however, Tilghman conceded that were NIH to pursue creating a "true Ph.D. in bioinformatics, I would be extremely enthusiastic. It could be called 'computational biology.' NIH could pilot such a Ph.D. program," she said.

—F.P.

Passages

The comings and goings, honors, and activities of people at NIH could fill a book every month. *The NIH Catalyst* takes note of appointments, awards, and life passages only every so often and without selection criteria.

The Wonder of Witkop

Scientist Emeritus Bernhard Witkop, who served as chief of the NIDDK (and formerly NIAMDD) Laboratory of Chemistry for 30 years until he stepped down in 1987—and who still maintains a base here as an NIH Scholar—has been elected to the American Philosophical Society. Others elected in this year's Biological Sciences cohort include Harvard's Judah Folkman and David Nathan, Berkeley's Corey Goodman, and Pittsburgh transplantation surgeon Thomas Starzl. Cellist Yo-Yo Ma and artist Frank Stella were inducted in The Arts class. Benjamin Franklin started the Philosophical Society in 1743, and members have included George Washington, Thomas Jefferson, Charles Darwin, and Louis Pasteur.

Bernhard Witkop

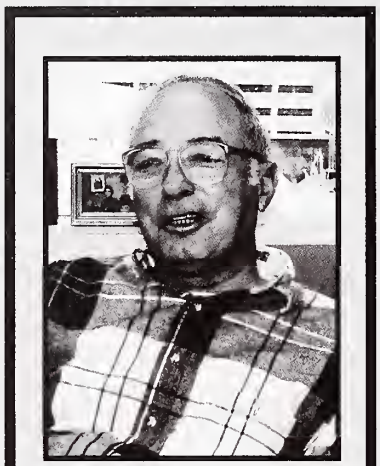
Among the 'Most Cited'

NCI's Elaine Jaffe, Steven Rosenberg, and Joseph Fraumeni; NIAID's Tony Fauci; and retired NHLBI investigator Stephen Epstein, were listed among the 10 most-cited clinical investigators in their fields in the May/June issue of *Science Watch*. The Institute for Scientific Information survey spanned the years 1981 to 1998.

Ralph Isenburg

Elaine Jaffe

Jaffe, whose early NCI mentor Alan Rabson points out is the only woman on the list, is chief of the Hematopathology Section in the NCI Laboratory of Pathology and has developed a cell classification system used worldwide in the diagnosis and treatment of lymphoma and leukemia. Her work will be featured in an upcoming issue of *The Catalyst*.



July 9, 1933–July 9, 1999

Gordon Guroff, NICHD deputy scientific director and nerve growth factor guru, died in a car accident on vacation in New Hampshire. He'd spent the day—his birthday—fishing on a lake (and actually caught some fish) and surrounded by his beloved family. In the photo at left, taken in his NIH office in late 1997, he was talking about the postbaccalaureate program here and how he delighted in mentoring students and helping those few each year who are "bound to get lost" to find their way through the bureaucratic maze and their own career confusions.

The Company She Keeps

In the old news but good news department, NCI's Susan Gottesman was elected last month to the American Academy of the Arts and Sciences in record time from her first nomination. She was the only NIHer to be elected this year and this Academy election follows her election to the National Academy of Sciences last year. Other biologists elected this year include Mary-Claire King, Eric Lander, Harvey Lodish, Michael Wigler, Louis Ignarro, Kim Nasmyth, and Martin Raff. Some nonbiologists who were elected this year include: Calvin Trillin, Jane Alexander, Robert Altman, Mikhail Baryshnikov, and Meryl Streep.

Celia Hooper

Susan Gottesman

Battle for Funding

Constance Urciolo Battle assumed the position of executive director of The Foundation of the NIH May 24, 1999, succeeding Anne Alexander.Battle comes to the Foundation with 30 years' experience directing complex organizations. As chief executive officer and medical director of the Hospital for Sick Children in Washington, D.C., she secured a $19 million construction and renovation project and a tenfold increase in hospital budget. She has headed international, national, and local professional associations and is a professor of pediatrics at George Washington University and Children's National Medical Center.

Constance Battle

Battle emphasizes her intention to obtain support for NIH initiatives "for which government funding is not available."

Lipsky Returns to NIH

Renowned rheumatologist and immunologist Peter Lipsky of the University of Texas Southwestern Medical Center in Dallas will be NIAMS new scientific director as of September l. Lipsky has been head of the Simmons Arthritis Research Center and the Rheumatology Division for the past 15 years. Early in his career Lipsky was a clinical associate in the NIAID Laboratory of Clinical Investigation. He also recently served as editor-in-chief of the *Journal of Immunology*. ■

Pharmacology Free-for-All

Principles of Clinical Pharmacology, a course sponsored by the Warren Grant Magnuson Clinical Center, will begin in the Lipsett Amphitheater on September 2nd. The course is held Thursday evenings from 6:30 pm to about 8:00 pm and runs through April 27, 2000.

The course covers topics such as pharmacokinetics, drug metabolism and transport, assessment of drug effects, drug therapy in special populations, and drug discovery and development. Lecturers include Carl Peck of Georgetown University's Center for Drug Development Science, Jerry Collins of the Food and Drug Administration, and the Clinical Center's Arthur J. Atkinson, Jr., who serves as course director and previously directed the Clinical Pharmacology Center at Northwestern University (Evanston, IL) and the Upjohn Company's clinical drug development programs.

Last year, 180 students enrolled. Registration is open to all interested persons—free of charge. Syllabus materials are provided for each lecture and certificates awarded at the end of the course to students who attend 75 percent of the lectures.

Additional course info and a registration form are available at **<http://www.cc.nih.gov/ccc/principles/>**.

Money & Laundering

The downside of more money for biomedical research is the generation of more hazardous wastes. Preparation is everything, according to NIEHS and the National Association of Physicians and the Environment, two of nearly 40 cosponsors of a leadership conference on "Biomedical Research and the Environment," to be held at the Natcher Conference Center on the NIH Bethesda campus November 1 and 2, 1999. Rep. John Porter (R-Ill.) keynotes. For additional info and to register, visit **<http://www.napenet.org/con99.html>**.

An Office Away from the Office

The On-Campus Work Center—an office away from the office—is a resource available to all NIH employees, including those who work elsewhere and come to the NIH Bethesda campus for a meeting. It's a place to go before, between, or after meetings or conferences to work, use a computer, make a telephone call, log-in to e-mail, send a fax, or just plain think.

The Center is designed for short-term use and is equipped with a fax and copier machine, telephones, and five workstations that hold five personal computers (including two Macs) and two plugs to accommodate individuals' notebook computers. Two of the computers—one PC and one Mac—are wheelchair accessible. The only requirement is that Center users sign in.

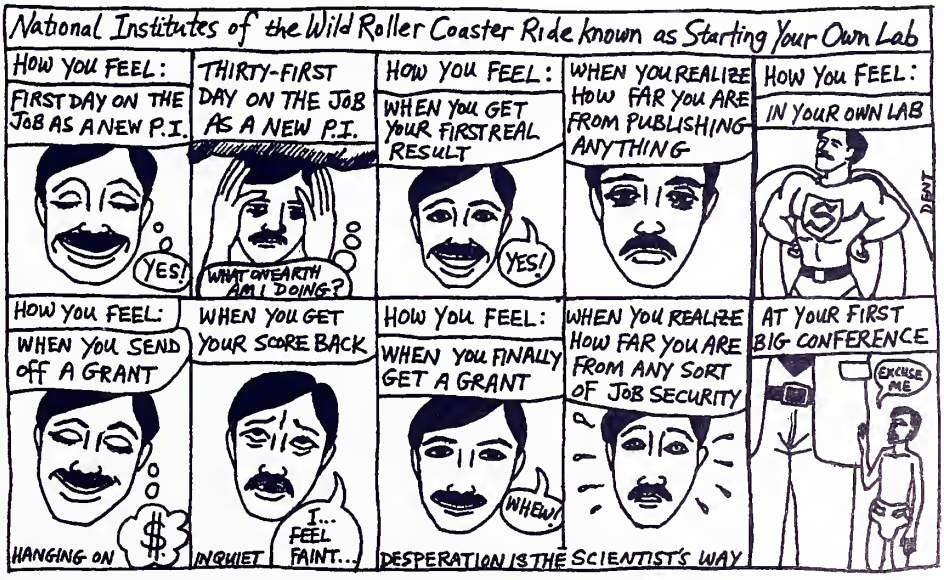
The room is open Monday through Friday, 8:30 a.m. to 4:30 p.m., and is located in Building 31, Room 1A1E09 (next to the cafeteria).The Center is sponsored by the NIH Quality of Work Life Committee and is maintained by ORS staff. CIT will respond to calls from Center users. For more info, visit the site a **<http://www1.od.nih.gov/ohrm/qwl/workctr.htm>**.

ORS Open to Interpretation

NIH is now offering a centrally coordinated array of interpreting services under a contract between the Office of Research Services (ORS) and Sign Language Associates. All NIH employees, visitors, and patients, including those located at NIH facilities in Baltimore, may avail themselves of these services for meetings, special programs, lectures, campus-wide activities, and one-on-one interactions between supervisors and employees or doctors and patients.

Originally offered through the Office of Equal Opportunity through a variety of mechanisms, interpreting services have been available at NIH since 1988. Under the new contract, the Special Program Services Office of the ORS Division of Support Services will serve as the point of contact for the provision of these services, monitor service quality, and assist in scheduling.

For answers to any questions regarding the services provided and to obtain a consumer manual on use of the contract, contact Timothy Tosten, project officer, at (301) 402-8180. ■



Editor's Note: *Catalyst* cartoonist Alex Dent is now an **extramural** investigator at Indiana University Medical School, Indianapolis.

Call for Catalytic Reactions

In this issue, we are asking for your reactions in four areas: E-biomed, NIH programs for graduate students, the NIH Interest Group system, and the upcoming NIH Research Festival.

Send your responses on these topics or your comments on other intramural research concerns to us via e-mail: <catalyst@nih.gov>; fax:402-4303; or mail: Building 1, Room 209.

In Future Issues...

- Bioinformatics
- Elaine Jaffe: A Cite for More Eyes
- Mouse Tips: Part 2

1) Only a handful of the hundreds of responses to the E-biomed proposal posted at the NIH director's web site emanated from the NIH intramural community. How would an E-biomed system (see page 1) affect you as as an author and as a reader?

2) What kinds of steps should NIH take to better accommodate the needs of graduate students on campus?

3) What do you think of the NIH Interest Group system? Is there anything missing?

4) The NIH Research Festival is just around the corner. Is there a particular research area you'd like to see highlighted?

The NIH Catalyst is published bi-monthly for and by the intramural scientists at NIH. Address correspondence to Building 1, Room 209, NIH, Bethesda, MD 20892. Ph: (301) 402-1449; fax: (301) 402-4303; e-mail: <catalyst@nih.gov>

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