Facing Uncertain Futures

AIDS Effort Needs Change of Course, Panel Says
By Rich McManus

Fifteen years into the AIDS epidemic, NIH has commissioned a thorough evaluation of its sprawling, $1.4 billion (in 1996) research effort on the disease and gotten new direction: the broad programs set in place years ago to answer immediate concerns are now passé—bright minds with good ideas are now the sorest need. Vaccine research needs a booster shot, much remains to be learned about human immunology, and a stronger commitment to prevention science must be undertaken, the panel urged.

Further, the many institutes, centers and divisions doing AIDS research at NIH must tighten their definition of what falls under that rubric. The 118-member AIDS Research Evaluation Working Group spent 15 months studying, at the behest of the O fice of AIDS Research advisory council, NIH’s mammoth investment in AIDS research. Composed mainly of active scientists (90 members—the balance were 18 members from the HIV-advocacy community and 10 representatives of the biotech/pharmaceutical industries), the panel found much to like about NIH research accomplishments against AIDS so far, but emphasized the need for a change of course.

NIH director Dr. Harold Varmus said he viewed the report—part of a series of critiques from outside experts who are giving him their impressions of intramural research at NIH (Marks-Cassel committee), intramural NCI organization (Bishop-Calabresi committee), intramural NIMH, clinical research, peer review and gene therapy—as an “institutional report card. We’ve made some progress, but we’re very far from victory in the battle against this insidious agent.”

The report gives him new intelligence about “which fronts need more supplies and soldiers, and which fronts we should retreat from,” he said. “We’ve reached a new phase in the battle.”

Allowing that “recent successes (in the battle against AIDS) call for some pride,”

(See AIDS REPORT, Page 10)

Postdocs Flock to Career Lectures
By Rich McManus

It used to be an article of faith: Go to college, do well, then get into a good grad school and get a doctorate. The world will beat a path to your door.

Many thousands of Americans were reared according to this credo, which rewarded its adherents—particularly in science’s post-Sputnik boom years—with plentiful opportunities and generous pay. But in this downsized, budget-carved era, the path to any good job in federal science or academia at the postgraduate level is so thoroughly trodden by so many highly qualified feet that holders of Ph.D.s and M.D.s now training at NIH are fearful about their futures.

Call them the worried well. They flocked by the hundreds to a recent 6-session seminar series put on by the NIH fellows committee called “New Careers for Young Scientists.” Featuring a stellar cast of ex-postdocs who have adapted their scientific training to successful careers in biotechnology, journalism, science administration and even Wall St., the just-ended series drew capacity crowds of young people to Lipsett Amphitheater, requiring closed-circuit TV feeds to overflow rooms. The young peoples’ appearance—in a room that more often holds lectures urging people to enter

(See JOB CRUNCH, Page 6)

Dr. John Robbins will speak on Tuesday, Apr. 23 at 3 p.m. in Masur Auditorium, Bldg. 10. The Dyer lectureship was established in 1950 in honor of former NIH director Dr. Rolla E. Dyer, a noted authority on infectious diseases.

The title of Robbins’ lecture is “Some-
thing Old, Something New, Something Borrowed, and Some Things Yet to Do." He will describe the theoretical basis for his past work, and discuss his current research efforts.

He and colleague Dr. Rachel Schneerson were the first to develop vaccines suitable for use in infants as well as in older individuals (especially those who are immunocompromised) against the bacteria that cause systemic infections. This was accomplished by binding the polysaccharide, a major component of the surface coat of these organisms and not immunogenic in infants and young children, to immunogenic proteins to form conjugates. This approach is based on observations made by Robbins and others on the development of immunity in infants and children. Robbins’ first vaccine, against H. influenzae type b, once the leading cause of meningitis worldwide and of acquired mental retardation in the United States, is now routinely given to infants, starting at age 2 months. Since use of H. influenzae conjugate vaccine began in the U.S., the number of H. influenzae cases has fallen from 15,000-20,000 per year to less than 100.

With their colleague Dr. Ronald Sekura, the Robbins team members have also developed a new single-component vaccine to combat pertussis, the organism that causes whooping cough. Although effective, the whole cell vaccine currently used against whooping cough in the U.S. causes side effects that have aroused concern among parents to the point that some were reluctant to have their children immunized. The researchers developed a vaccine using only the inactivated immunogenic toxin produced by Bordetella pertussis, the bacterium that causes whooping cough. The new vaccine, recently tested in Sweden, where pertussis is epidemic, was found to cause virtually no side effects and was shown to be effective.

Robbins’ NICHD team has other accomplishments to its credit as well, having provided the groundwork for new vaccines against Pneumococcus, Staphylococcus aureus, and group B Streptococcus. They have also developed an improved vaccine against the agent that causes typhoid fever, Salmonella typhi. The team has also gone to work on other diseases and now has evidence that its conjugate vaccine approach can prevent the diarrhea and dysentery caused by Shigella, a major cause of death in infants worldwide. The researchers are also completing preliminary clinical evaluation of a vaccine to prevent infection with E. coli 0157, often responsible for serious intestinal infections in children (including those due to contaminated fast-food hamburgers).

In his Dyer Lecture, Robbins will also discuss how his highly innovative approaches to vaccine development can be applied to still more infections caused by a wide range of important human pathogens.— Robert Bock □

Shellen M. Simon has been appointed director of the Office of Program Planning and Evaluation, NIAMS. Prior to this, she was the planning officer for the National Center for Human Genome Research. She came to NIH in 1974 as a biologist in NEI’s glaucoma laboratory, and later worked as a technical information specialist there. From 1985 to 1986, she was a program analyst for NIADDK. In 1986, when NIH was established, she was reassigned to the new institute and remained until 1989, when she joined the National Institute on Deafness and Other Communication Disorders. In 1990, she joined NCHGR. She has received numerous honors, including the NIH Director’s Award.

Free Raffle at Vacation Expo

Approximately 75 representatives from travel destinations will be on hand to answer questions and distribute information on Thursday, May 2 from 10 a.m. to 3 p.m. in the Visitor Information Center, Bldg. 10. Lots of giveaway weekends will be available. Also, sign up for the free raffle of two round-trip airline tickets to anywhere in the continental U.S.  □
Genetic Map of Mouse DNA Finished

Human Genome Project researchers have completed a dense "genetic map" of the DNA of the laboratory mouse. The lab mouse is one of the best-studied animals in genetics, and its genetic information is about 75 percent similar to that of the human. The publication of the mouse linkage map in the Mar. 14 issue of the journal Nature, along with a separate linkage map of the human genome, marks the completion of the Human Genome Project's large-scale genetic mapping efforts.

"Dense genetic maps make possible the identification of genes for single-gene disorders and the dissection of [multi-gene] traits," said officials of the National Center for Human Genome Research in an accompanying editorial. According to NCHGR Director Dr. Francis Collins, and deputy director Dr. Elke Jordan, "...these two groups have already changed the face of human and mouse biology."

The effort to map the mouse genome began 5 years ago. The final map was constructed by Dr. Eric Lander at the Whitehead Institute for Biomedical Research and the Massachusetts Institute of Technology, and colleagues. This map contains 7,377 markers scattered along the chromosomes—1 every 400,000 nucleotide bases on average. Although the mouse genome is about the same size as that of the human, it is packaged in 20 chromosome pairs instead of 23. The new map provides dense marker coverage of all 20 mouse chromosomes. A full spelling out of all the markers would require over 500 journal pages, the report says, so the complete marker information is being made available on the Internet (http://www-genome.wi.mit.edu).

A major advantage of the new mouse map is its usefulness in mapping the genetic origins of diseases or traits. Even before researchers have identified the gene actually responsible for a trait, mapped markers tell them roughly how close by the gene is. The more markers there are on the map, the more likely one will be closely linked to a disease gene, and the easier it will be to zero in on that gene. The mouse is particularly useful in the study of inherited traits. For nearly 100 years, scientists have been developing strains exhibiting specific variations in genetic make up. Even though these traits are often easy to see, little is known about the underlying genetics that cause them.

A French group reports in the same issue of Nature that it has constructed a genetic map of the human genome that, like the mouse map, consists of high-quality, DNA-sequence based markers known as microsatellites, which are easy to use in the laboratory. These maps have already helped researchers pinpoint and isolate genes for many diseases caused by alterations in a single gene. "Mapping disease [characteristics] by linkage analysis used to be a daunting task, one outside of the reach of many relatively sophisticated laboratories," say Collins and Jordan. "The new maps have changed all that—mapping a single-gene disorder can now be accomplished in a modest-sized lab in a few months."

The new maps also give researchers better tools for teasing apart the genetics of disorders such as diabetes, asthma, cancer, and high-blood pressure, that result from subtle alterations in more than one gene.

With the genetic maps for both human and mouse now complete, Collins and Jordan say the second phase of the Human Genome Project will entail completing so-called "physical maps" of the human genome—organized sets of isolated and mapped DNA pieces representing all the DNA in the genome. For the human, this will likely be completed in the next 2 years.

Science for All Lecture

The Staff Training in Extramural Programs committee is sponsoring a Science for All lecture entitled "Learning and Memory" on Apr. 25. The 2-hour program will feature two speakers: Dr. Joseph Brady of Johns Hopkins University and Dr. Arthur Horton of the National Institute on Drug Abuse. Appetite time will be available for questions after the presentations.

The program will be held from 1 to 3 p.m. in Wilson Hall, Bldg. 1. The talk is open to all NIH'ers on a first-come, first-served basis. No advance registration is necessary. Those needing sign language interpretation/reasonable accommodation should contact STEP by Apr. 15. For more information call the STEP program office, 5-2769.

Try Your Luck at Trump

R&W is sponsoring a trip to Trump Royal Casino in Atlantic City on Friday, May 10. Bus leaves Bldg. 31C's parking lot at 6:45 a.m. Cost is $25, which includes transportation and a $14 coin package. Call 6-4600 for reservations.
### 1997 BUDGET FAVORS NIH (Continued from Page 1)

In FY 1997, NIH will support 6,827 competing RPGs, an increase of 207 over the FY 1996 estimate. Funding for all RPGs (competing and noncompeting, Small Business Innovation Research and Small Business Technology Transfer awards) will increase by 3.2 percent.

A priority for NIH is the construction of a new Clinical Research Center. At present, much of the 40-year old CC is considered functionally obsolete, inefficient to operate, and expensive to maintain. As the provider of over half of all federally funded clinical research beds in the nation, the CC intramural clinical research program will be called on to play an increasingly important role in the conduct of clinical research nationally.

In 1995, HHS Secretary Donna Shalala commissioned a team, known as the Options Team, to study options for improving the efficiency of CC operations, including contracting out or privatizing CC functions. The Options Team report recommended changes in the governing, funding and managing of the CC. To fully implement these changes, a newly reconfigured Clinical Research Center must be built. The FY 1997 budget requests a total of $310 million for the construction of a 250-bed hospital and associated laboratories. These new facilities will be a national resource, open to physician-scientists in academic health centers as well as our own intramural scientists.

The budget request also highlights scientific opportunities that NIH has identified as the most promising, making them worthy of additional support. These areas include research on the brain and brain disorders (+$22 million); developing new preventive strategies against disease by investigating emergency infections, as well as the prevention and treatment of drug and alcohol abuse (+$22.5 million); the analysis of the genome and genes implicated in human disease and development (+$21 million); and the development and use of advanced instrumentation and computers in medicine and research (+$13 million).

Areas where the President's budget tightens instead of expands are: less money for contracts, a constrained RM&S (research management and support) budget, and slightly reduced support for the intramural programs.

NIH director Dr. Harold Varmus was set to defend this budget on Capitol Hill as The Record went to press.

### Percentage Share of NIH Total by Mechanism

**President's FY 1997 Budget Request**

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<th>Mechanism</th>
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<tr>
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**NIAA Needs Large Families**

The National Institute on Alcohol Abuse and Alcoholism is seeking volunteers who have two living parents and four or more children over age 15. Family or personal history of alcoholism is not necessary. Each person will be paid about $200. Study includes a physical exam by a physician and the full range of standard screening blood tests, including cholesterol. Call for a phone interview that will give more information and possible restrictions and procedures. Contact Claudia Harris or Kenn White, 0-2839.

**Problems with Alcohol?**

Is alcoholism destroying your family? NIAAA is seeking both actively drinking and recovering alcoholics for various studies. If you are 18 or older, have no significant medical problems, no current drug use (except alcohol), and take no medications, you may qualify for free treatment. For more information call 6-1993.
NIH Observes ‘Take Your Kids to Work Day’

On Thursday, Apr. 25, NIH will observe “Take Your Children to Work Day.” The purpose is to introduce schoolchildren, ages 9 to 15, to the vital public services that their parents provide and to encourage future career decisions that will provide a quality work force for the 21st century. This observance was launched initially in 1993 as “Take Your Daughters to Work,” but NIH has expanded its observance to include sons.

Employees are welcome to bring their child/grandchild to work if approved by the employee’s supervisor and certain rules are followed. NIH annual chapter 3015 contains specific information about bringing children into potentially hazardous areas.

Parents and children may participate in Take Your Child to Work Day in several ways:

- Have child stay with parent all day during routine work activities;
- Attend activity presented independently by your ICD;
- Browse through displays in the Clinical Center lobby between 9 a.m. and 2 p.m.;
- Take part in activities scheduled during specific time slots.

Because of space limitations, some activities require free, advanced registration. All activities are first-come, first-served.

Preregistration is required for some activities due to space limitations. It will be held Tuesday, Apr. 23 and Wednesdays, Apr. 24, between 10 a.m. and 2 p.m., in the lobby of Masur Auditorium, Bldg. 10.

Featured events during the day include:

- Tours: Clinical Center, clinical pathology department, surgical suite, recreation therapy, Children’s Inn, National Library of Medicine, radiation safety building, NICHD Division of Basic Science labs of biology, cellular and molecular biology, and molecular biology.

- Hands-on opportunities: Lab demonstrations, orientation to the world wide web, fire extinguisher training, fingerprinting/ID cards for children.

- Presentations: oral/dental health, Why Should I Stay Awake in Science Class.

- Videos: Introduction to NIH, To Do Science Is To Know Science, Back to Sleep (SIDS prevention), Human Genome Project, Adolescents at Risk.

- Displays: fire safety, occupational safety/industrial hygiene, public safety.

Parents must be with their child during attendance at any activity. Detailed information will be sent in a desk-to desk flyer.

Why I Should Stay Awake in Science Class.

Videos: Introduction to NIH. To Do Science Is To Know Science, Back to Sleep (SIDS prevention), Human Genome Project, Adolescents at Risk.

Displays: fire safety, occupational safety/industrial hygiene, public safety.

Parents must be with their child during attendance at any activity. Detailed information will be sent in a desk-to desk flyer.

Dr. Griffin Rodgers, chief of the molecular hematology section in NIDDK’s Laboratory of Chemical Biology, was recently selected by the Black Commissioned Officers advisory group to receive the 1995 Hildrus A. Poindexter Award for his discoveries in the detection and treatment of life-threatening hemolytic diseases. Rodgers was also cited as a role model, teacher and advocate for minority students interested in the health professions. The PHS Commissioned Corps also recently awarded Rodgers an exceptional capability promotion and its M eritorious Service Medal for his outstanding contributions in investigating the pathophysiology of sickle cell disease and developing new therapies for this and other hematological diseases.

Chamber Music Concert

The Rock Creek Chamber Players will perform on Sunday, Apr. 21 at 3 p.m. in the 14th floor assembly hall, Bldg. 10. The program, sponsored by the Clinical Center’s recreation therapy section, will include Mozart’s quintet for piano and winds; Milhaud’s quintet for string quartet and bass viol; Ibert’s Interludes, for flute, violin, and keyboard; and Brahms’ Nove Liebeslieder, waltzes for four voices and piano four hands. For more information on this free public concert, call (202) 337-8710.

Wednesday Afternoon Series

The Wednesday Afternoon Lecture series gets a little wacky this month—call it spring fever—with lectures outside the normal bounds of Wednesdays at 3 p.m. The location—Masur Auditorium, Bldg. 10—remains constant.

A special doubleheader is planned for Apr. 17. At 2:30 p.m. that day, Dr. Louise N. Johnson of Oxford University’s laboratory of molecular biophysics will discuss “Structural Aspects of Control by Protein Phosphorylation.” Her talk is hosted by the Structural Biology Interest Group.

After Johnson’s talk, at 3:30, will be a reception, followed by the 9th Paul Ehrlich Lecture at 4 p.m. Dr. Barry J. Marshall, clinical associate professor, department of internal medicine, University of Virginia, will discuss “New Magic Bullets in the Fight Against Gastritis.” This talk is hosted by FAES.

On Apr. 23, a Tuesday, at 3 p.m., Dr. John B. Robbins, chief of NICHD’s Laboratory of Developmental and Molecular Immunity, will give the R.E. Dyer Lecture on the topic “Something Old and Something New, Something Borrowed and Some Things Yet To Do.”

Dr. Paula Tallal visits on Apr. 24 at 3 p.m. to speak on “Neurobiological Basis of Speech.” She is professor of neuroscience and codirector, Center for Molecular and Behavioral Neuroscience, Rutgers University. Her remarks are sponsored by the Neurobiology Interest Group.

For more information or reasonable accommodation, call Hilda Madine, 4-5595.

Golf League Play To Start

The NIK R & W 9-Hole Golf League is preparing for its 1996 season. Play is once a week with tee times reserved after work at the Falls Rd. Golf Course. The league accommodates all levels of golfers through competitive and noncompetitive play. To play competitively, you must submit score cards for 27 holes of golf in order to determine a handicap. The season begins in early May, with play on either Tuesdays or Thursdays through Labor Day. For more information or to obtain a registration form, contact Larry Pinkus, president, 4-7315. Registration closes on Apr. 19.
JOB CRUNCH
(Continued from Page 1)

research careers—is a sort of heresy at NIH, but one sadly acceded to by the realities of the job market, and by the NIH scientific directors, who cosponsored the talks.

"There's a sense of panic, basically," said Dr. Dawn Brasaemle of NIDDK, who has been training at NIH for the past 3 1/2 years and attended most of the career seminars. "People are worried about the prospect of not getting jobs in the research-based careers for which they have prepared. There seems to be a massive oversupply of [doctorate-holders]."

"It's not uncommon for there to be 300 to 400 applicants for a job," said Dr. Tracy Rankin, also of NIDDK. "And if you do get a job, the funding [for it] might not be there once you get it. It's a terribly competitive situation."

"[The job situation] has forced people to consider other options than science," said NIDDK postdoc Dr. Rod Larson. "I think everyone is worried. Even scientists-turned-journalists Dr. Lawrence Altman of the New York Times and National Public Radio science correspondent Dr. Joe Palca—see an NIH that is only able to fund 24 to 26 percent of the studies deemed worthy of grant money, and

appear grim. Though each of their respective media employers is famous for never having any jobs available—a fact not lost on the postdocs—there they stood, exemplars of what can be accomplished. As Palca summed up for the group, "There's no way to get into it, but it's possible."

Following the talks, NIDDK's Brasaemle observed, "It was interesting, yes, but helpful? No. It was certainly entertaining though." Said her colleague Rankin, "I've been poor for so long, and have invested so much that it's hard to consider (a job switch) at this point."

Two of the NIH postdocs who helped organize the seminar series say it's almost therapeutic for their frustrated peers to attend such sessions, even if prospects in other fields are bleak. Drs. Charles Chu and Regis Krah are aware of what the latter calls "a very broad and very deep

A Tale of Two Scientists-Turned-Journalists

Lawrence Altman grew up in a medical family in Boston, and recalls being interested in social issues very early in life. He earned an M.D. at Tufts University, but spent summers and vacations reporting for the Quincy (Mass.) Patriot-Ledger. (During college at Harvard, he had worked, albeit on the business side, of the Harvard Lampoon.) In 1969, he jumped to journalism full-time, and has been a Times medical reporter for the past 27 years.

He applauded the initiative of the postdocs in hosting such a controversial series: "In my view, such efforts are long overdue." He said scientific education and training are too often stifled by tunnel vision when they should have the widest possible view. "[Medicine] can be taught as the most liberal of arts, but it's often conducted as a trade school."

A series of events, some serendipitous, some pure dogged inquiry, led Altman to his present career. An editor at the Patriot-Ledger had advised the young Altman that, in a world getting only so much cadavers for study—led to another Altman byline in the local paper, and soon he was marrying the two vocations, employing scholarly habits of library research and interview with a flair for writing for the layman.

"I found that there were close parallels between journalism and epidemiology (a field in which he later trained, along
sense of anxiety” among NIH postdocs. “It depends on how well your research is going,” said Chu, who has been here for 6 years, but has been searching for his next job for the past 2½ years. “I had expected to stay here for only 3 years, but my research didn’t go well enough for me to get as good a job as I was hoping for.

with infectious diseases),” he recalled, noting that medical writer Berton Roueche’s feature stories in the New Yorker were also influential. After interning in San Francisco, Altman decided PHS service was more appealing than being drafted to serve in Vietnam, so he signed on with the prestigious EIS—the Epidemic Intelligence Service—at the Centers for Disease Control. There, his medical training and nose for a good story would pay off even further.

He applied for editorship of the Morbidity and Mortality Weekly Report, but stipulated the freedom to do field investigations as a condition of taking the job. “I wanted it to be more of a newspaper, breaking the news, than an archive,” he said.

He used his journalism instincts—basically no more than synthesizing rumor and anecdote into themes—to uncover a rubella outbreak in New York City in 1963. For the first time, MMWR would report an epidemic on the rise rather than past its crest.

“That cemented the idea for me that medicine and journalism could be synergistic,” he said.

While completing a residency at the University of Washington in Seattle, Altman applied to the New York Times, suggesting that it would be advantageous for the newspaper to hire an M.D.

“We agreed that I could come and try it as an experiment,” he remembers.

Altman said it dawned on him in medical school that medicine was emerging from an arena of private philanthropy into a publicly financed enterprise in America. “John Q. Public, not John D. Rockefeller, was becoming the patron of medical research. The issues were no longer confined to hospital hallways and lounges. They were emerging in public, which was paying more of its medical bills.”

Altman began to conceive of his reporting as “making rounds for the public, not for the 20 white coats following me around the hospital. Ironically, I think I’ve done more educating [as a reporter] than if I had remained in academic medicine.”

Without even knowing it, Altman said, physicians typically practice journalism every day: taking patient histories (which requires sensitive interviewing techniques), writing articles for journals, and communicating with peers at conferences.

Though it has rewarded his inclinations well, Altman reminded the postdocs of several chilling realities about journalism: jobs are few, pay is low, hours—at good papers—are easily as long as those logged in the most competitive labs, and, astonishingly, many young people don’t read newspapers anymore. Newspapers, already suffering fewer advertising revenues, face an uncertain future, he observed.

NPR’s Joe Palca was hardly more optimistic. Palca relied on Varmus’ tape of their conversation for Varmus’ answers to his questions. Too faint to be picked up by Varmus’ microphone, Palca’s voice was recorded later in a sound studio at NPR, giving him an air of calm authority and making it sound as though a struggling Varmus was answering queries posed by an utterly fit Palca. Palca still thinks Varmus (“a competitive cyclist, and a competitive everything else, I think”) felt deliberately set-up by a reporter aiming to make himself look good.

Deciding to interview a scientist during a bike commute to work is one reason Palca is at NPR rather than studying thermoregulation of sleep, which was the topic of his Ph.D. research in psychology at the University of California, Santa Cruz.

Niche-finding, however, was no easier for Palca than for Altman, who sacrificed summers and vacations to remain a journalist while training full-time to become a physician. (“He’s probably the best boss I ever had—I am grateful to him for letting me stay as long as I have,” he notes), shared some of the depth of that unhappiness in a series of email reactions he received from postdocs responding to earlier lectures: their countumely, in some cases, is right up there in disgruntled-postal-worker league.

Observe Krah, “Due to the job situation, there are a lot of people on the NIH campus who are very nervous about their futures. One frustrating thing is that most of them feel they are not good for anything other than research, so they...”

(See POSTDOCS, Page 8)
POSTDOCS FLOCK TO CAREER LECTURES
(Continued from Page 7)

feel very trapped. This is generating tremendous, almost incapacitating, amounts of anxiety.

It bothers Krah that such manifestly gifted people as NIH postdocs should feel so vulnerable. He hopes the seminar series helped people "critically evaluate themselves, their potential futures, and helped them make rational decisions rather than wasting time fretting."

He admits there are, despite the job squeeze, jobs to be had in basic research. "There are also jobs in pharmaceutical companies, the patent office, technology transfer, journalism, Wall St., Washington, D.C., teaching, and grants management. But the take-home message from all of the speakers is that any career worth its salt is competitive, demanding, and requires hard work."

Despite the grounds for optimism, however, "a lot of people look at the end of their postdoctoral training as the lip of a cliff, not as a pinnacle to future glory," Krah said. Now it seems to be if you'll get a job in research.

Both Krah and Chu say hundreds of their peers compete for the same handful of jobs open to postdocs.

"It's the end of exponential growth of jobs in science," Krah said. Now it's time for many to apply the Palca algorithm: Push, push, push.

Others who served on the committee that organized the series include Drs. Jasmit Sarro, Susan Shoaf, Bruce Bunnell, Kathy Partin. NICHD scientific director Dr. Art Levine and his institute helped launch the series. (Continued from Page 8)

REPORTERS
(Continued from Page 7)

dissertation was done, but there were no jobs and no money—just like today," he recalled. He saw an ad in Science magazine about a summer internship in mass media, applied and won his first journalism job—an internship at Channel 9 TV in Washington, D.C. Though basically a gofer for the station's medical reporter, Palca learned two important lessons: commercial media would run all ads and no news if they thought they could get away with it, and scientists rarely are aware of what the public wants to know from them.

He returned to Santa Cruz to complete his Ph.D. work, then looked for another TV gig. To sharpen his skills as a writer, he would transcribe local news broadcasts in San Francisco, and rewrite news articles from the paper. He took a writing test at a media internship at Channel 9 TV in Washington, D.C. Though basically a gofer for the station's medical reporter, Palca learned two important lessons: commercial media would run all ads and no news if they thought they could get away with it, and scientists rarely are aware of what the public wants to know from them.

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Employee Express now has a new feature that allows you to change your PIN (personal identification number). To select the PIN CHANGE option, call Employee Express and you will be guided through as you change your PIN. You may choose any combination of 4-8 letters or numbers. For greater security, avoid selecting your birthday, phone number, or address. If you have forgotten or lost your PIN, call the Employee Express help desk, (912) 757-3030.

Instead of completing forms, using the mail system, and/or visiting your personnel office, use Employee Express to process the following types of payroll and personnel actions: federal and state tax withholding; direct deposit (net check); financial allotments; home address. Take control over your payroll and personnel actions—use Employee Express. (Continued from Page 8)
NIAMS To Celebrate 10th Anniversary on Apr. 15

NIAMS will celebrate its 10th anniversary with an all-day symposium titled, “Progress and Promise in Chronic Disease.” The symposium will be held at Lister Hill Auditorium, Bldg. 38A, on Monday, Apr. 15, from 8:30 a.m. to 6 p.m. Featured speakers include Dr. Stephen Katz, NIAMS director; Dr. Lawrence Shulman, NIAMS director emeritus; and Dr. Harold Varmus, NIH director. To register and for reasonable accommodations and other information, contact Gale Saunders, 2-1692, fax: 0-6069, or e-mail: saunderg@od.niams.nih.gov. Preregistration is encouraged.

OMS Sponsors ‘The Heart Line’

You have the power to reduce your chances of developing heart disease. The first step is to assess your cardiovascular disease risk factors. Based on this, you can focus on the risk factors most important for your continuing health. Preventive measures range from simple lifestyle changes to medical intervention. In observance of National High Blood Pressure month, the Occupational Medical Service (OMS) will offer The Heart Line, a cardiovascular risk assessment program presented in cooperation with NHLBI and R&W.

The program will help you examine such risk factors as weight, serum cholesterol levels, blood pressure, level of physical activity and cigarette smoking. The Heart Line Program will be held from Apr. 22 through May 17 (see schedule for location and dates). The Heart Line offers measurements of blood pressure and, for a nominal fee, the measurements of fasting serum cholesterol and glucose levels. Weight measurement can also be done at Bldgs. 10, 13, Rockledge and EPN. OMS staff will also provide educational and cardiovascular risk assessment material.

Heartline Cardiovascular Risk Assessment

All sessions 8 - 10:30 a.m.

If you want to have your cholesterol and glucose levels tested accurately, you must not eat anything for 9 hours before the test.

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NIH Library To Hold Open House, Apr. 18

The NIH Library Branch, a component of NCRR, will hold an Open House, Thursday, Apr. 18, starting at 10 a.m., to honor National Library Week. All NIH staff are invited to visit the library, located in Rm. 1L25, Bldg. 10. Tours of the facility will be conducted at 11 a.m. and 2 p.m. Electronic database demonstrations and registration for library services, including Carl Ucover, M edline, and Loansome Doc will take place between 10 a.m. and 2 p.m. During the open house, everyone who registers for the library listser will automatically be entered in a drawing to win a $20 gift certificate from Borders Books (first prize) or a canvas tote bag (second prize). For NIH staff who work at Executive Plaza, an Open House will be held on Wednesday, Apr. 17, from 10 a.m. to 2 p.m., in classroom 4, Executive Plaza South. On Monday, Apr. 15 and Tuesday, Apr. 16, respectively, there will be table top displays about the library’s resources and services in Bldgs. 35 and 49.

For more information on the NIH Library Open House and other activities scheduled for National Library Week, check the NIH Library’s home page at http://libwwwnccr.nih.gov, or call 6-1156.

NIH Heart Walks

Walking is one of the best activities for improving and maintaining your heart health. The campus offers excellent opportunities for walking. The Division of Safety, O R S and R&W have developed a Heart Walk flyer that identifies a variety of measured walking routes. To increase opportunities for walking, both indoor and outdoor routes are included. The Division of Engineering Services has painted red hearts on the sidewalks to mark the outdoor routes. Indoor routes can be identified by the red heart stickers. Heart Walk flyers are free and available at R&W stores and OMS health units.
AIDS REPORT
(Continued from Page 1)

Varmus said studies initiated by individual investigators are most direly needed, along with basic study of the human immune system.

As the Record went to press, reports from six subpanels of the working group were due, and Varmus said he plans to look at all the reports in more detail before proceeding to implementation—a knotty enterprise involving discussions with all ICD directors sponsoring the study of AIDS.

"This process will take some time," Varmus noted, "but it will be effective...We mean business when we say we take these recommendations with extreme seriousness."

Dr. Charles Carpenter of Brown University, who chairs the OAR advisory committee, said the report's recommendations were accepted unanimously, and emphasized that "unprecedented amounts of knowledge" have been generated by NIH AIDS studies so far. "But formidable challenges still face us," he warned. "This is a mid-course correction, if you will. Our report is a forward-looking document. Approaches will continue to evolve unpredictably as our knowledge base increases."

Working group chair Dr. Arnold Levine, a cancer biologist at Princeton University, outlined the nuts and bolts of the group's deliberations: 90 meetings, six of which were public, yielded 14 recommendations (further subdivided into as many as four and five subrecommendations each), the first eight of which are "science-driven" and answer the question, "What are the best opportunities in the next 5 years for research?"

Leading the list were increased support for, and improvement of peer-review of, investigator-initiated research. The group recommended doubling the proportion of the NIH AIDS research budget allocated to this goal.

A trans-NIH vaccine effort should be developed under NIAID, but with completely new structure and with the leadership and oversight of distinguished nongovernment scientists.

An augmented effort to understand the human immune system is needed.

OAR should develop a comprehensive HIV prevention science agenda, ideally including behavioral and social interventions, biomedical technologies (topical microbicides, condoms, sterile syringes, for example), and vaccines.

"Preventive medicine is the medicine of the future for this disease," Levine said.

All adult clinical trial programs involving AIDS should be integrated into a single network. A uniform standard for databases is also critical in these trials.

The drug discovery research effort, located largely within NCI, should be refocused and restructured so as not to duplicate work being done by drug companies.

Basic research on AIDS-associated opportunistic infections is needed, as well as methods to transfer new findings quickly to clinical evaluation.

The scientific basis of alternative medicine therapies needs strengthening.

The next four recommendations were "more structural and administrative," said Levine. These include more work in primate animal models, reinvigorated AIDS research centers throughout the United States, databases that are more uniform and accessible, and overall improvement of information systems.

H is last two recommendations dealt with OAR itself: a standard definition of AIDS research is needed, and a strong OAR should lead the whole NIH AIDS research effort.

"We need to ask the ICDs to define what they mean by AIDS research," he said, noting that "NIAID does it right—their definitions are clear and consistent. The other ICDs’ definitions seem to change with time, and sometimes that’s good."

Levine called for an ongoing dialogue between Varmus, Paul and the ICD directors, and emphasized, in the panel’s final recommendation, the need for "a strong and vital OAR. We want a single, coordinated effort."

OAR director Dr. William Paul commented, "My own spin on this report is that it’s a strong clarion call for more investigator-initiated research, which is a traditional strength of the NIH. I hope the ICDs will support these recommendations."

Questioned by reporters at a media availability in the Natcher Bldg on Mar. 14, where the report was officially unveiled (though the story broke in the press before NIH could present the report publicly), Levine gave several examples of avenues of research that have been successful and can now be deemphasized. Work on reverse transcriptase inhibitors, the groundwork for which was laid at NIH, he said, is now largely the province of drug companies.

"We can leave that alone now. Also, the blood supply is safe, we all agree, so research on blood substitutes can be deemphasized. There was a time, however, when that was perfectly appropriate research [on AIDS]."

Levine said it was impossible to look at every single research grant and judge whether the money had been spent appropriately or not, "and frankly, we didn’t want to. It wouldn’t have told us anything, and it wouldn’t have been helpful. We didn’t want to micromanage, we wanted to look at programs."

The group commissioned NIAID virologist Dr. M alcolm Martin to review some 120 papers on AIDS vaccines. Levine said Martin’s study uncovered a trend: "N ot enough attempts were made to explain why these vaccine efforts failed. You have to try to know if you’ve failed, and then find out why," he declared. "It wasn’t that there weren’t good guesses (at the outset)."

During the epidemic’s first decade, AIDS research was heavily managed, Levine explained. "There was a research-by-contract atmosphere that tackled broad public health concerns."

"Our group came along at a really good time," he observed. "An infusion of diversity into this program is the best thing we could do at this time. The field needs reinvigoration, new ideas."

Paul assured the audience that the first 15 years of the battle against the AIDS epidemic have not been wasted, emphasizing that NIH’s "response has been unprecedented."

Varmus said the "good will and scientific judgment of all concerned" with AIDS research at NIH would get the agency over any rough spots in coming months as the recommendations are implemented, but Levine acknowledged that his group’s proposals "create a certain amount of friction." Varmus didn’t foresee any changes in the net number of researchers here, and he and other panel members emphatically rejected the idea that a separate AIDS institute would benefit the fight against the disease. "A new AIDS institute would be disruptive," he said.

OAR’s Paul said he will immediately use a $10 million discretionary fund under his control to support the best investigator-initiated projects OAR can identify.

The full report of the working group is available on the World Wide Web at NIH’s home page—http://www.nih.gov, under "News and Events."
Office of Equal Opportunity To Hold Open Forum, Apr. 16

The Office of Equal Opportunity will sponsor the second in a series of open forums on Tuesday, Apr. 16 in Masur Auditorium, Bldg. 10, from 1:30 to 3 p.m. During the past year, major changes have occurred throughout NIH as a result of government-wide downsizing and streamlining initiatives including a reduction of personnel and fiscal resources, and realignment of components. This open forum will focus on the impact of the changes as they relate to affirmative action, the OEO workplace diversity initiative (including a followup from the October Diversity Congress), status of the NIH alternative dispute resolution initiative, and downsizing and streamlining initiatives including a reduction of personnel and fiscal resources, and realignment of components.

The forum will be shown on closed-circuit TV at NIEHS, Bldg. 10, Rm. 101. For more information, call Shirley Everest, 6-4627. Sign language interpretation will be provided. For reasonable accommodation, call Carlton Coleman, 6-2906 (V/TTY).
Shalala Visits Children at Clinical Center

By Anne Blank

What would you like me to tell President Clinton?” HHS Secretary Donna Shalala recently asked three children being treated at NICHD’s 9 West pediatric unit. She was a guest of NICHD and NIH on Mar. 12, when she met with patients and physicians to learn about some of the institute’s clinical research protocols. Her hosts were NICHD director Dr. Duane Alexander, deputy director Dr. Yvonne M. addox, scientific director Dr. Arthur Levine, and clinical director Dr. Lynette N. ieman. NIH director Dr. H. arold Varmus, NIH deputy director Dr. Ruth Kirschstein, and Clinical Center director Dr. John Gallin also attended.

Nine-year-olds Katie Leatherwood and Ashley Appell, and 15-year-old Brianne Schwantes had the unusual opportunity to meet with Shalala to send a message to the President and describe what they like about NIH, as well as what they think should be changed.

The children agreed that the doctors and nurses are nice, while Katie, who says she wants to be a doctor, added that she likes coming to the NIH “because of all the new friends that she makes here. Ashley and her mother seemed pleased with the way things were, simply saying, “Keep going.” Brianne praised the activity rooms and the nursing care, but did have one suggestion: “add more elevators to the Clinical Center.” Shalala also heard presentations by NICHD intramural scientists on congenital adrenal hyperplasia (CAH), an endocrine disorder; Hermansky-Pudlak Syndrome (HPS), which causes albinism, abnormal bleeding, and abnormal storage of a lipid-like material; and osteogenesis imperfecta (OI), also known as brittle bone disease.

Katie has CAH, which is a group of disorders caused by any one of a series of defects in the biochemical reactions needed to produce the hormone cortisol, explained Dr. Carolyn Bondy, chief of the Developmental Endocrinology Branch, and Dr. Gordon Cutler, chief of the section on developmental endocrinology. The branch has started a new trial to test whether the combination of an androgen blocking drug (flutamide) and an inhibitor of androgen-to-estrogen conversion (testolactone) would be more effective than the current treatment, with promising preliminary results. A parallel laboratory initiative is an attempt to correct a form of CAH in mice through gene therapy.

Ashley was born with HPS, a rare genetic disease that is most prevalent in Puerto Rico, where it has been found in approximately 1,000 people. In the mainland United States, HPS has been found in approximately 100 individuals, less than 1 per million. Although its etiology is unknown, HPS is thought to be caused by a single autosomal recessive mutation affecting certain small vesicles inside specific cells, explained Dr. William Gahl, head of the section on biochemical genetics of the Heritable Disorders Branch. These include the melanosome, which produces pigment inside the melanocyte; the dense body, which causes platelets to aggregate and form a clot; and the lysosome, a defect in which leads to the storage of ceroid lipofuscin. Currently, NICHD scientists in the Heritable Disorders Branch are conducting a clinical protocol to better define the clinical characteristics of HPS, as well as the basic defect underlying the disorder. These investigators are using a cell culture system to examine the biochemical pathways involved in HPS.

Brianne was born with OI, a genetic disorder of connective tissue that causes the bones of affected individuals to fracture easily, even from mild trauma. Dr. Isabelle Cohen, of the Heritable Disorders Branch’s section on connective tissue disorders, explained that the disease is caused by mutations in the gene which encodes type I collagen, the most abundant structural protein of bones, skin, and tendons. OI is grouped into four types, depending on severity. Features of the disease include bone fragility, bowing and osteoporosis, growth deficiency, loose or dislocated joints, blue sclerae (“whites”) of the eyes, defective tooth dentin, hearing loss, and curvatures of the spine. OI occurs at an overall incidence of about 1 in 15,000 births, without any preference for gender, race, or ethnic origin. At the Heritable Disorders Branch, research has focused on bracing and exercise to improve mobility and decrease fractures, growth hormone therapy to try to correct growth deficiency, and various approaches to limit the incorporation of the mutant collagen molecule into the bone matrix.

Like their children, the parents expressed gratitude for what NIH has done for them. Because these diseases are rare, the families said they felt isolated and in despair before coming to NIH, where they finally were able to get answers to their questions and new approaches to treatment, as well as to meet families of children with the same disease. In the words of Ashley’s mother, Donna Appell, whose daughter comforted her with a hug and a pat when she became tearful: “NIH is a miraculous place.”

Bone Diseases Group Meets

“Hormonal Effects on Bone Mineral Density in the Hip and Spine: Results from the PEPI Trial,” will be the topic of a presentation at the next meeting of the federal working group on bone diseases. The meeting is scheduled for Apr. 18 from 9:30 to 11:30 a.m. in Bldg. 31, Conf. Rm. 7.