

**DIRECTOR'S REPORT
TO THE
NATIONAL ADVISORY DENTAL AND CRANIOFACIAL RESEARCH
COUNCIL**

May 2004

Budget Mechanism Table

ACTIVITIES OF THE NIDCR DIRECTOR

Over the past several months, NIDCR Director Lawrence Tabak maintained an active schedule speaking on Capitol Hill, delivering presentations at dental schools and the National Academy of Sciences, and attending scientific meetings where he discussed the future of dental, oral, and craniofacial research. He also continued his leadership role on the NIH Information Technology Working Group, which he co-chairs, and membership on the NIH Steering Committee, which oversees governance issues at NIH.

On April 28, Dr. Tabak was the guest speaker at a legislative briefing on oral, dental and craniofacial research advances presented by the Congressional Oral Health Caucus. The other guest speakers were Rep. Mike Simpson (R-ID) and Rep. John Linder (R-GA), both of whom are dentists, as well as C. Yolanda Bonta, Director of Technology, Colgate-Palmolive Company, and Katherine Hammitt, past president of the Sjogren's Syndrome Foundation. The Friends of the NIDCR sponsored the briefing, and representatives from almost all oral health patient advocate groups attended.

In January, the NIDCR Director spoke at the National Academy of Sciences at a meeting on Facilitating Interdisciplinary Research, which focused on "The NIH Roadmap." He provided an overview of the NIH Roadmap at the Brigham & Women's 2004 Research Planning Retreat and conducted a workshop on the NIH Roadmap at the Harvard School of Dental Medicine to which representatives from the three schools of dentistry in Boston and the Forsyth Research Institute were invited. The Director also recently was interviewed about the potential impact of the NIH Roadmap in shaping dental research during the 21st century, and what the initiative means for the oral health research community. The interview is available at:

http://www.nidcr.nih.gov/news/inside_scoop_roadmap.asp

In May, Dr. Tabak delivered the commencement addresses at the University of Michigan School of Dentistry and the Boston University School of Dental Medicine. He also had numerous other speaking engagements. He gave a talk on "Molecular Medicine Enters the Mouth" at the NIDCR Professional Development Conference held April 19-20 on the NIH campus, and at the University of Connecticut Schools of Medicine and Dental Medicine Annual Student Research Day, the University of Las Vegas School of Dental Medicine,

the University of Iowa Research Day, the University of Louisville in Kentucky and the University of Illinois at Chicago. "All in the family: the roles of the polypeptide: GalNAc transferase family of glycosyltransferases" was the topic of a lecture he gave at both the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) Laboratory of Cellular and Developmental Biology and the NIDDK 2004 retreat.

ACTIVITIES OF THE ACTING NIDCR DEPUTY DIRECTOR

Dr. Henning Birkedal-Hansen, Acting NIDCR Deputy Director, represented the Institute at a series of formal functions, greeted foreign visitors, and presented overviews of NIDCR programs. He participated in the meeting of the National Oral Health Information Clearinghouse (NOHIC) Coordinating Panel in Bethesda, MD, and gave the opening remarks and participated in the meeting of the Advisory Committee for the TMJ Registry and Repository. Together with Dr. Bruce Pihlstrom, Acting Director of the Division of Population and Health Promotion Sciences, Dr. Birkedal-Hansen met with Dr. Anne Marie Murphy, Medicaid Director, State of Illinois, regarding future collaborative projects concerning perinatal care and oral health. He also delivered the opening remarks at the ADA Dental Student Meeting held in Bethesda, MD, and was invited to serve on a planning group convened by HRSA/AHRQ to develop an expert colloquium to address the question, "Based on scientific evidence of a relationship between periodontal disease and preterm low birth weight, what policies and programs, if any, should be developed to improve the health of mothers and babies?"

The Acting Deputy Director gave the opening remarks at the Patient Advocacy Forum Meeting in Bethesda, MD, and attended, together with Dr. Tabak, the FNIDCR Patient Advocacy Day on Capitol Hill. He participated in the NIDCR conference on "Methods for Enhancing the Efficiency of Dental/Oral Health Clinical Trials: Current Status, Future Possibilities," on May 6-7 on the NIH campus and the Sackler Colloquium on RNAi interference at the National Academy of Sciences.

BUDGET UPDATE

FY 2004

NIDCR's final appropriation for FY 2004 is \$383.3 million, including \$1.3 million reserved for support of NIH Roadmap projects.

Exclusive of Roadmap-associated funding, research project grant (RPG) funding is estimated at \$229.7 million, in support of 642 awards. An estimated \$18.5 million will support 12 center awards. Additionally, 107 Research Career Development Award (RCDA) positions and 321 full-time training positions will be funded.

FY 2005

President's Budget

The FY 2005 President's budget request for the NIDCR is \$394.1 million, including \$2.5 million reserved for support of NIH Roadmap projects. The request represents an increase of \$10.8 million--or 2.8 percent--over the FY 2004 appropriation of \$383.3 million. The FY 2005 President's budget request for the NIH is \$28.8 billion, an increase of \$729 million--or 2.6 percent--over the FY 2004 estimate.

Exclusive of Roadmap-associated funding, the FY 2005 request for NIDCR provides support for an estimated 184 competing RPGs and 454 non-competing RPGs--a total of 638 awards. The FY 2005 request includes funding for 12 research centers. NIDCR will continue to support approximately 107 Research Career Development Award (RCDA) positions and 321 full-time training positions.

NIDCR's Congressional Justification narrative can be viewed at:

<http://www.nidcr.nih.gov/about/CJ-FY2005.asp>

Budget Hearings

The Fiscal Year 2005 Senate Appropriations Subcommittee hearing on NIH's budget request was held on April 1, 2004. The House hearing was comprised of two separate sessions, held April 21 and April 22, which addressed: 1) The State of NIH: Budget, Science, and Roadmap and 2) NIH Management. At both the House and Senate hearings, NIH Director Elias Zerhouni testified on behalf of the entire NIH; Institute Directors were in attendance so that specific questions could be directed to them.

The NIDCR Director's Statement for the House and Senate Appropriations Subcommittees is available at:

http://www.nidcr.nih.gov/about/Opening_Statement_FY2005.asp

DHHS/NIH ACTIVITIES

Update on National Call to Action to Promote Oral Health

The National Call to Action to Promote Oral Health, released by Surgeon General Richard Carmona in May 2003, outlined five categories of action: Change Perceptions of Oral Health; Overcome Barriers by Replicating Effective Programs and Proven Efforts; Build the Science Base and Accelerate Science Transfer; Increase Oral Health Workforce Diversity, Capacity, and Flexibility; and Increase Collaborations. A Partnership Network of organizations, formed after the earlier release of the Surgeon General's Report on Oral Health, has been a major stakeholder in supporting the concepts embodied in the Call to Action. The

Partnership Network will meet in Washington, D.C. on May 18 to discuss steps that have been taken in the past 12 months; lessons learned; strategies for future programming; next steps regarding future dialogue about the National Call to Action; and strengthening and renewing commitments to the oral health and well-being of all Americans. The National Call to Action is available on the NIDCR web site at:

<http://www.nidcr.nih.gov/sgr/CallToAction.asp>

Healthy People 2010 Activities

A progress review of the Oral Health focus area of Healthy People 2010 was held March 17 in the DHHS Hubert Humphrey Building in Washington, D.C.

Chief Dental Officer Dushanka V. Kleinman gave the opening remarks at the session, and NIDCR Director Lawrence Tabak provided information on what the NIDCR is doing to help achieve the national oral health objectives. The data and documents used in the progress review are available at:

<http://www.cdc.gov/nchs/hphome.htm>

The Oral Health Toolkit, designed to help individuals achieve the National Oral Health Objectives, has been completed and copies have been mailed to all state dental directors and others upon request. The toolkit is available on the NIDCR web site at:

<http://www.nidcr.nih.gov/hp2010/>

New AHRQ Report On Periodontitis Therapy Is Available

Some antimicrobials show promise as adjunctive therapies to scaling and root-planing for treating non-aggressive chronic periodontitis in patients without other conditions such as diabetes or immune deficiency, according to a new systematic literature review prepared by the Agency for Healthcare Research and Quality (AHRQ) RTI-University of North Carolina Evidence-based Practice Center. The evidence-based report was funded by the NIDCR. The report, entitled "Effectiveness of Antimicrobial Adjuncts to Scaling and Root-Planing Therapy for Periodontitis," is the fourth and final report in a series of systematic reviews of published evidence-based literature on dental-related topics for NIDCR. The report is available online at: <http://www.ahrq.gov/clinic/epcsums/periosum.htm>

IOM Releases Report on Health Literacy

The Institute of Medicine (IOM) has released a report entitled "Health Literacy: A Prescription to End Confusion," which says that nearly half of all American adults have difficulty understanding and using health information. The burden falls unequally on those with lower levels of reading comprehension and education, certain ethnic or racial groups, the elderly, and those for whom English is not their native language. The report also calls for NIH to convene a consensus conference "to develop methodology for the incorporation of health literacy improvement into approaches for health disparities." In addition, it recommends that health care systems develop and support programs to reduce the negative effects of limited health literacy and that health knowledge and skills be

incorporated into the existing curricula of K-12 classes, as well as adult education and community programs. The report may be read online at:
<http://www.nap.edu/catalog/10883.html>

FDA Approves First Oral Fluid Based Rapid HIV Test Kit

On March 26 the Food and Drug Administration (FDA) approved the use of oral fluid samples with a rapid HIV diagnostic test kit that provides screening results with over 99 percent accuracy in as little as 20 minutes. Until now, all rapid HIV tests required the use of blood to get such rapid results. The original version of this rapid test—the OraQuick Rapid HIV–1/2 Antibody Test, manufactured by OraSure Technologies, Inc., Bethlehem, PA—was approved November 7, 2002 for detection of antibody to HIV-1 in blood. On March 19, 2004, FDA approved the test for detection of HIV-2 (a variant of HIV that is prevalent in parts of Africa but rarely found in the United States) in blood. The latest approval represents another significant new use for the test. As with all screening tests for HIV, if the OraQuick test gives a reactive test result, that result must be confirmed with an additional more specific test. The Centers for Disease Control and Prevention (CDC) has estimated that one-fourth of the approximately 900,000 HIV-infected people in the U.S. are not aware that they are infected. Because of the potential public health benefits of rapid HIV testing, the CDC and the Centers for Medicare and Medicaid Services (CMS) are working with state and other health officials to make the OraQuick test widely available and to offer technical assistance and training for its use.

NHANES III Data Released

The Centers for Disease Control and Prevention/National Center for Health Statistics has announced the release of the Oral Health Examination Data from the National Health and Nutrition Examination Survey (NHANES) for survey years 1999-2000. The data are being released as three datasets: Oral Health (Dentition Section), Oral Health (Periodontal Section), and Oral Health (Recommendation of Care/Referral Section). The datasets and documentation may be found on the NHANES web site at:
http://www.cdc.gov/nchs/about/major/nhanes/NHANES99_00.htm

NIH Institutes to Develop a Trans-NIH Blueprint for Brain Research

NIH Director Elias Zerhouni has asked a group of NIH Institutes, including the NIDCR, to work together over the next few months to develop a trans-NIH blueprint for brain research. The primary goal of the blueprint is to organize and coordinate neuroscience resources and objectives among the institutes. The blueprint likely will target three areas: infrastructure, technology development, and common research themes. In addition to the NIDCR, the institutes that will help develop the brain research blueprint are the National Institute of Neurological Disorders and Stroke, the National Institute of Mental Health, the National Institute on Drug Abuse, the National Institute on Deafness and Other Communication Disorders, the National Institute on Alcohol Abuse and Alcoholism, the National Eye Institute, the National Institute on Aging, the

National Institute of General Medical Sciences, and the National Institute of Child Health and Human Development.

Blue Ribbon Panel Issues Conflict of Interest Policy Recommendations

The NIH Director established a working group of the Advisory Committee to the Director to study the issues surrounding NIH researchers' consulting with outside groups. The working group, known as the NIH Blue Ribbon Panel on Conflict of Interest Policies, is led by Bruce Alberts, President of the National Academy of Sciences, and Norman R. Augustine, Chairman of the Executive Committee of the Lockheed Martin Corporation. The charge of the Panel was to review and make recommendations for improving the existing rules and procedures under which NIH currently operates regarding real and apparent financial conflict of interest of NIH staff, and requirements and policies for the reporting of NIH staff's financial interests. The panel provided recommendations on May 6 to the Advisory Committee to the Director. The report of the panel is available at: http://www.nih.gov/about/ethics_COI_panelreport.htm

Bernard A. Schwetz to Head Office for Human Research Protections

HHS Secretary Tommy G. Thompson has announced the appointment of Bernard A. Schwetz, D.V.M., Ph.D., as director of the HHS Office for Human Research Protections (OHRP). Dr. Schwetz had served as acting director of the office since February 2003. OHRP leads the department's efforts to ensure the protection of human subjects in research. The office monitors programs at more than 10,000 HHS-funded universities, hospitals and other medical and behavioral research institutions in the United States and abroad. Prior to joining the OHRP, Dr. Schwetz served as the senior advisor for science at the Food and Drug Administration and as a distinguished scientist at the University of Maryland. He was the acting principal deputy commissioner of the FDA from January 2001 to February 2002, and before that was the agency's acting deputy commissioner. He also chaired the FDA's Institutional Review Board for the protection of human subjects.

SCIENTIFIC ADVANCES

Animal Studies Show Promise Treating Chronic Severe Pain

Researchers may be on the trail of a new and more targeted treatment for severe chronic pain. In the May issue of the *Journal of Clinical Investigation*, a team of scientists established in a series of animal studies the therapeutic potential of selectively deleting specific nerve cells from the nervous system that convey severe chronic pain. So effective was the treatment in eight dogs severely affected by osteoarthritis, cancer-related pain, or both, all eventually became more active and later walked with slight or no limps. Just as importantly, none showed any adverse side effects from the treatment, their temperaments were improved, and their need for other pain-controlling medications was eliminated or greatly reduced. The authors also reported selectively deleting the nerve cells,

called C-fiber neurons, from among various human neurons cultured together in the laboratory, an indication the strategy might work in people. C-fibers convey to the central nervous system sensations of noxious heat and certain inflammatory signals. "Some have referred to the technique as using a 'molecular scalpel,'" said Dr. Michael J. Iadarola, a scientist in NIDCR's Pain and Neurosensory Mechanisms Branch and a senior author on the paper. "The technique selectively deletes certain neurons but leaves others untouched. As a result, the nervous system functions normally, it's just a certain spectrum of pain responsiveness that has been deleted."

The study is titled, "Deletion of vanilloid receptor 1-expressing primary afferent neurons for pain control." The authors are: Laszlo Karai, Dorthothy Brown, Andrew J. Mannes, Stephan T. Connelly, Jacob Brown, Michael Gandal, Ofer W. Welisch, John K. Neubert, Zoltan Olah, and Michael J. Iadarola. All are affiliated with NIDCR, except Dr. Brown, who is in the School of Veterinary Medicine at the University of Pennsylvania.

Scientists Finish Sequencing Genome of Oral Pathogen

A team of scientists reported online March 29 in the *Proceedings of the National Academy of Sciences* (PNAS) that it has finished assembling the complete 2.8 million bases, or units of DNA, of *Treponema denticola* (*T. denticola*). The lead authors, Drs. Ian Paulsen and Rekha Seshadri at The Institute for Genomic Research (TIGR) in Rockville, MD, note that although microbial genomes are now routinely sequenced, this organism could prove particularly interesting. They state that *T. denticola* is associated with periodontal disease, which affects an estimated 200 million Americans. Previous studies indicate *T. denticola* aggregates in the mouth with *Porphyromonas gingivalis*, which has long been suspected as one of the main causes of periodontal disease. Because the genome of *P. gingivalis* already has been fully sequenced, this paper will allow scientists to more systematically study how these oral pathogens interact to cause disease. Such studies could provide precise molecular clues on where to target new and potentially more effective therapies to prevent periodontal disease. The *T. denticola* sequence is publicly available at GenBank: <http://www.ncbi.nlm.nih.gov/Genbank/index.html> under accession number AE017226. The project was supported by the NIDCR.

Researchers Report Progress in Salivary Gland Gene Transfer

Two years ago, scientists reported exciting news in the development of gene transfer in the salivary glands. They had constructed a new version of a gene-carrying vehicle, or vector, that functioned well in the salivary glands of mice for several weeks. Most significantly, the vector--a stripped down, bioengineered version of the harmless adeno-associated virus (AAV)--had done so without triggering a sustained immune response, a common setback in gene therapy experiments. Left unanswered, however, was whether the AAV gene vector could keep up the good work for several months or a year. In the March 2 issue of the *Proceedings of the National Academy of Sciences*, the scientists report the

vector performed admirably in the salivary glands of mice for at least one year. These results now clear the way scientifically to advance the preclinical work into mice bred specifically to model human disease and also into larger animals, which would allow scientists to better scale the likely therapeutic dosage in people for possible clinical trials.

In the latest work, Dr. Anotonis Voutetakis and colleagues at the NIDCR created an AAV vector that carried the gene for human erythropoietin, a hormone produced primarily in the kidneys to stimulate the production of red blood cells. After injecting a relatively low-dose of the vector into the submandibular salivary glands of the mice, they began to detect a gradual increase in serum levels of the human erythropoietin over the first 12 weeks, a sign that the salivary gland was producing and pumping the hormone into the bloodstream. Thereafter, serum levels of the human erythropoietin remained relatively stable to the 54-week mark, the arbitrary cut-off point. In addition to Dr. Voutetakis, the authors on the study are Marc R. Kok, Changyu Zheng, Ioannis Bossis, Jianghua Wang, Ana P. Cotrim, Natanya Marracino, Corrine M. Goldsmith, John A. Chiorini, Y. Peng Loh, Lynnette K. Nieman, and Bruce J. Baum.

Scientists Identify Candidate Genes in Tumor Regression

Scientists discovered several years ago that interleukin-12, a protein that immune cells secrete in response to an invading pathogen, can also alert disease-fighting T cells to recognize, attack, and remember tumor cells for months to come. But as researchers have developed Il-12 as a possible treatment for cancer, they have found the protein or its gene is most effective when injected directly into tumors, not infused into the bloodstream. Although researchers don't know why this is so, some wonder whether biology might be trying to teach them a valuable lesson. They say it may be that the much higher concentration of Il-12 when applied directly to tumors prompts cells to express specific genes at higher levels and/or transmit signals along different anti-growth or suicide-inducing pathways. It also suggests that identifying these specific genes and pathways might allow scientists to amplify their tumor-shrinking effects with Il-12 or other compounds.

Now, in a key first step in this direction, a team of scientists has identified 14 genes in oral squamous cell carcinoma cells that respond in particular to direct administration of Il-12. Of these genes, the scientists say they found four in particular whose expression levels changed tremendously in response to the increased Il-12 levels. While two of the genes fall into the category of "the usual suspects," the others - *IRF7* and *Wsb2* - are little studied by cancer researchers and could provide excellent targets for further investigation. The work was published in the March 2004 issue of the journal *Molecular Therapy* and was supported by NIDCR and the National Cancer Institute. Dr. Shulin Li, a scientist at Louisiana State University in Baton Rouge, is the lead author on the paper.

Xueqing Xia, Francesca M. Mellieon, Jianguo Liu and Stacy Steele collaborated on the study.

Periodontal Disease: Early Progress Reported in Tissue Engineering

Scientists have long known that platelet-derived growth factor (PDGF) has the potential to help regenerate the lost bone and soft tissue that occurs with advanced periodontal disease. The problem always has been finding a way to administer PDGF that prevents scissor-like enzymes in the wound from snipping the growth factor to pieces and degrading it before complete regeneration can occur.

Now, as a potential solution to this problem, a team of researchers at the University of Michigan reports the first success at using gene therapy to administer PDGF to the wound in rats. According to the article, published in the April issue of the journal *Molecular Therapy*, the scientists inserted a copy of the PDGF gene into the much-studied adenovirus, which transported the gene past the destructive enzymes and into cells surrounding the lesion. Once there, the scientists reported the gene produced increased amounts of PDGF protein for up to three weeks, while prompting the regeneration of bone, formation of the tooth-supporting periodontal ligaments, and enhanced deposition of root-covering cementum. Stressing their strategy still faces many scientific hurdles, the authors say their experiments mark an important first step in developing PDGF gene therapy for the treatment of periodontal disease, which affects an estimated 200 million Americans to varying degrees. "This really is a proof-of-concept study, meaning that it is not yet ready for clinical applications, but we have shown that PDGF gene therapy is possible. There are still questions that we hope to answer with further refinement of the therapy," said Dr. William V. Giannobile, the senior author on the study and a scientist at the University of Michigan. Collaborating with Dr. Giannobile were Drs. Qiming Jin, Orasa Anusaksathien, Sarah A. Webb, and Marie A. Printz. The work was supported by the NIDCR.

MEETINGS AND WORKSHOPS

Patient Advocates Forum

NIDCR hosted its fifth annual Patient Advocates Forum on April 27 on the NIH campus. The conference welcomed 16 patient advocates representing 14 organizations with a shared interest in the oral health effects of their respective disorders and conditions. NIDCR staff detailed new funding opportunities that focus on research needs of particular interest to Forum participants and sought input from the group on how best to bring the expertise of their research communities into the grant application process.

Attendees were also briefed on the NIH Roadmap, received updates on NIDCR and NOHIC activities, and toured the National Library of Medicine. The day concluded with an informal *Advocates Roundtable* that provided a venue for the group to discuss issues that cut across the health voluntary organizations,

including such topics as sponsorship of scientific meetings, collaborating on areas of common interest, and raising awareness of nonprofit organizations.

Professional Skills Development Conference

A conference for development of professional skills was sponsored by the NIDCR, April 19-20 on the NIH campus. Sessions on grant writing, employment skills, and research resources were conducted concurrent with an institutional programs technical assistance workshop and programmatic best practices session for program directors.

Clinical Trials Workshop

NIDCR sponsored a workshop on “Methods for Enhancing the Efficiency of Dental/Oral Health Clinical Trials: Current Status, Future Possibilities,” May 6-7 on the NIH campus. The workshop assessed the state-of-the-science and identified future research needs for biomarkers, surrogate endpoints, and technologies for clinical trials in oral diseases. The meeting also identified research opportunities to enhance the efficiency of dental/oral health clinical trials, and considered ways in which clinical trials of other diseases have benefited from the use of new methods and technologies and might serve as an example for new approaches to dental/oral health studies. In addition, regulatory considerations from the Food and Drug Administration were discussed. A reactor panel provided an assessment of those research opportunities that have the most promise for application to oral diseases and conditions.

Third Scientific Meeting of the Temporomandibular Joint Association

NIDCR cosponsored the third scientific meeting of the TMJ Association on “Advancing Diagnostic Approaches for TMJ Diseases and Disorders,” held May 5-7 in Bethesda, MD. Participants included physicians, dentists, federal health agency officials, medical scientists, bioengineers, medical imaging specialists, and TMJ patients interested in learning about progress in diagnosing and treating TMJ. Topics covered included the diagnosis of TMJ diseases and disorders; new and emerging diagnostic technologies; the complexity of TMJ diseases and disorders; the limitations in predicting outcomes of specific treatments for individuals; and NIH recommendations for conservative treatments, with irreversible treatment selected as a last resort. The Office of Rare Diseases, the National Institute of Bioimaging and Bioengineering, and the Office of Research on Women’s Health also cosponsored the meeting.

40th Annual ADA Dental Students Conference

More than 50 dental students selected by their deans from dental schools across the U.S. and Canada, traveled to the NIDCR to participate in the Annual ADA Dental Students’ Conference on Research, held April 17-19. The event provided the students with insight into a career in dental science research and development. Students heard presentations by NIDCR staff and toured the Building 10 facility where NIDCR investigators spoke to them about thermal testing and genetics pain studies, oral biofilms, and salivary research. The

students learned about current research at the Paffenbarger Research Center and also heard presentations given by representatives from Pfizer, the American Dental Association, and the American Association for Dental Research.

International Association for Dental Research (IADR) Meeting

NIDCR staff played an active role in the IADR Annual Meeting held in Hawaii, March 10-13, 2004. In addition to hosting a consultation booth for meeting participants to learn more about NIDCR funding, research, and research training opportunities, staff held seminars on “Essentials in Grant Writing” and organized a number of symposia, including:

- Achieving Healthy People 2010 Objectives: Oral Cancer
- Salivary Gland Regeneration: Advances Toward Therapeutic Strategies
- Ensuring Ethnic Minority Participation in Clinical Research: Practical Applications from the Pacific Rim
- Saliva/Oral Fluid-Based Diagnostic Markers of Disease
- Gene Expression and the Genomics of Pain and Analgesic Drug Actions

Information was presented about the NIDCR NRSA Ruth L. Kirschstein Institutional Clinical Research Training Award and Enhancing Opportunities for Oral Health Clinical Research, and a workshop was held on Ethical Dilemmas in International Collaborative Oral Health Research: Case Studies. Staff also delivered a keynote address on Current Topics in Dental Anesthesiology Research.

National Oral Health Conference

Several NIDCR staff members gave presentations at the 2004 National Oral Health Conference (NOHC), held May 3-5 in Los Angeles, CA. The conference is the fifth joint annual meeting between the American Association of Public Health Dentistry (AAPHD) and the Association of State and Territorial Dental Directors (ASTDD). Major funding is provided by the Centers for Disease Control and Prevention. Attendees included public health officials, health researchers, dentists and dental hygienists, dental and health educators, legislators, Medicaid/SCHIP dental representatives, community health center personnel, dental students, as well as dental suppliers and dental insurance companies. Scientific sessions provided information on effective state and community programs as well as the latest information on effective activities to promote oral health and prevent disease.

Gordon Conference: Biology of the Spirochetes

NIDCR supported the 6th Gordon Research Conference on the Biology of Spirochetes, held January 25-30 in Ventura, CA. This is the only international meeting devoted to discussions on basic research of all medically important and biologically relevant spirochetes. Many spirochetes are pathogens and cause a variety of diseases, including syphilis, Lyme disease, relapsing fever, leptospirosis, periodontal disease, digital dermatitis of cattle, and swine and human dysentery. The conference provided an opportunity for an exchange of

ideas among groups working on different spirochetes, particularly in the area of new techniques for genetic manipulation. Attendance at the 2004 conference reached the maximum of 150 faculty, graduate students, postdoctoral fellows, and industrial scientists.

Seventh ASM Conference on *Candida* and Candidiasis

NIDCR supported the Seventh American Society of Microbiology (ASM) Conference on *Candida* and Candidiasis, held March 18-22, in Austin, TX. The conference focused on pathogenesis, adhesion and invasion, virulence properties, animal models, drugs and resistance, genetics and proteomic studies of *candida* species.

Evolution of Developmental Diversity Meeting

NIDCR also co-sponsored the meeting on “Evolution of Developmental Diversity” held March 31-April 4 at Cold Spring Harbor Laboratory, NY. The meeting is the second in a series of three meetings on this topic that are being sponsored by the NIDCR, the National Institute of Child Health and Human Development, the National Center for Research Resources, and the National Science Foundation. The meeting focused on cutting edge research in the areas of patterning, segmentation, organogenesis, and the evolution of gene regulation.

Herschel S. Horowitz Memorial Symposium

On December 17, 2003, NIDCR sponsored the “Herschel S. Horowitz Memorial Symposium: A Celebration of His Science and His Legacy.” Held on the NIH campus, the symposium honored the life and work of Dr. Horowitz, a pioneer in dental epidemiology and fluoride studies, who passed away last August. Dr. Horowitz conducted extensive research and worked to promote fluoridation to improve public health. Friends from around the world attended the symposium; speakers included colleagues from Korea and Thailand; the Regional Advisor for Oral Health, Pan American Health Organization (PAHO); and Dr. Lois K. Cohen, NIDCR Associate Director for International Health.

NIH Nanomedicine Roadmap Initiative

NIH held a project launch meeting of the NIH Nanomedicine Roadmap Initiative on May 4. The goals of the initiative are to obtain a comprehensive set of measurements on molecules and assemblies of molecules, to use those measurements to understand molecular pathways and networks, and to understand the fundamental biological design principles that will drive the development of new nanomachines and technologies to improve human health. The need for more precise measurements within cells, combined with the expanding array of tools at the nanoscale, led to the identification of Nanomedicine as one of five initiatives included under the major NIH Roadmap theme of “New Pathways to Discovery.” Dr. Eleni Kousvelari, acting director of the NIDCR Center for Biotechnology and Innovation, is a member of the NIH Nanomedicine Roadmap and a member of the organizing committee for this

meeting. The workshop will present examples and explanations of the NIH vision for creating Nanomedicine Development Centers.

Other Meetings Attended by Staff:

3rd Annual Timberline Symposium on Epithelial Cell Biology
8th International Conference on Malignancies in AIDS and Other Immunodeficiencies: Basic, Epidemiologic and Clinical Research
11th Conference on Retroviruses and Opportunistic Infections
12th Annual SPORE Investigators' Workshop Conference (planning committee meeting)
95th Annual Meeting of the American Association for Cancer Research
A Decade of Neuroscience Informatics (10th anniversary meeting of the Human Brain Project)
ADA Committee on International Programs and Development
Advances in Skeletal Anabolic Agents for the Treatment of Osteoporosis
Annual Meeting of the Materials Research Society
Coordinating Committee for the International Caries Detection and Assessment System (ICDAS)
District of Columbia Dental Society Annual Meeting
Drug Metabolism: Roles of Pharmacogenomics, Transporters, and Drug-Drug Interactions
FASEB Experimental Biology Meeting
Forum for Global Health and Gender
Head and Neck Specialized Program of Research Excellence (SPORE) Directors' meeting
Interagency Working Group on Community-Based Participatory Research
NIH Behavioral and Social Sciences Coordinating Committee
NIH Women's History Month
Society of Research on Nicotine and Tobacco
Standards Committee on Dental Informatics (ADA)
TMD Research Diagnostic and Criteria: Reliability and Validity Cooperative Agreement
Trans-NIH Informatics Committee
Translational Tobacco Use Research Centers: Process, Progress, and Research Results
WIHS III Semi-Annual Meeting

RESEARCH TRAINING, CAREER DEVELOPMENT, AND EDUCATION UPDATE

Initiatives

NIH Multidisciplinary Clinical Research Career Development Program

NIDCR is participating in the NIH Multidisciplinary Clinical Research Career Development Program (RFA-RM-04-006) for the career development of clinical researchers. Of 49 applications received, 20 included schools of dentistry. This Roadmap Initiative may be viewed at:

<http://grants.nih.gov/grants/guide/rfa-files/RFA-RM-04-006.html>

Training in Clinical Research

A complementary program to enhance fundamental training in clinical research related to oral, dental, and craniofacial research for all members of the clinical research team has been developed by the NIDCR. This institutional program uses the T32 mechanism and will strengthen interdisciplinary partnerships.

Training CD Soon to Be Available

NIDCR has developed a CD entitled "Facing Your Future: Research Training and Career Development Opportunities" aimed at groups ranging from high school

students to independent scientists. Designed to replace written publications that quickly go out of date, the CD links potential research trainees directly to relevant training information on the NIDCR web site. The CD begins with a fast-paced introduction set to music that describes different facets of oral health and ends by linking users to the training section of the NIDCR web site. The NIDCR Office of Communications and Health Education is now testing the CD with members of target audiences. Once it is finalized, NIDCR will distribute the CD at conferences and other training-related events and activities.

Presentations on Research Training and Career Development Opportunities

Dr. Sharon Gordon, Special Assistant for Research Training, Career Development and Education, presented an overview of research training and career development opportunities entitled “Career Café” to dental and graduate students, postdoctoral fellows, residents, faculty, and staff at the following schools: University of Florida College of Dentistry, Baylor College of Dentistry, and Howard University College of Dentistry.

The Howard Hughes Research Training Fellowship

<http://www.hhmi.org/research/cloister/apply.html>

is a year-long residential experience for medical and dental students that enables them to obtain hands-on training in basic research. A record number of dental students (9) applied this year. Five students were interviewed, and all were accepted. Students selected are from the Harvard School of Dental Medicine, the University of Michigan School of Dentistry, University of Pennsylvania School of Dental Medicine, University of Buffalo School of Dental Medicine, and the University of California, San Francisco School of Dentistry.

NIDCR Summer Dental Student Award

The NIDCR Summer Dental Student Award is an eight-week program designed to expose dental students to the latest advances in oral health research. Students are assigned a research mentor based on stated research interests and learn state-of-the-art technologies to improve the prevention, diagnosis, and therapy of oral diseases. Eight students were selected from across the country to participate this summer. Schools represented include: the University of Maryland Baltimore College of Dental Surgery, Harvard School of Dental Medicine, the Medical University of South Carolina College of Dental Medicine, Columbia University School of Dental and Oral Surgery, Nova Southeastern University College of Dental Medicine, the University of Connecticut School of Dental Medicine, and Temple University School of Dentistry. Program details are available at:

<http://www.nidcr.nih.gov/research/student.asp>

RESEARCH INFRASTRUCTURE, CURRICULUM DEVELOPMENT AND OUTREACH/RECRUITMENT UPDATE

Enhancing Research Capabilities in U.S. Dental Schools

NIDCR organized a symposium entitled, “Enhancing Research Capabilities in U.S. Dental Schools,” at the Annual Session of the American Dental Education Association. The symposium, held March 8 in Seattle, WA, included an overview of NIDCR funding to dental schools and initiatives to enhance research infrastructure. Presentations also were given by Dr. Charles Bertolami, Dean, University of California, San Francisco School of Dentistry; Dr. Timothy DeRouen, Executive Associate Dean for Research and Academic Affairs, University of Washington School of Dentistry and Director of the Comprehensive Center for Oral Health Research; and Dr. Thomas Hart, NIDCR Clinical Director.

Response to Request for Applications (RFA)

- **Enhancing Research Infrastructure and Capacity Building for U.S. Dental Institutions (U24) (RFA-DE-04-008)**
<http://grants1.nih.gov/grants/guide/rfa-files/RFA-DE-04-008.html>
The application due date was April 14. Twenty-two proposals were received. Review of applications is scheduled for June 20-22.

DIVISION OF BASIC AND TRANSLATIONAL SCIENCES

New Program Announcements (PAs)

Since the last meeting of the NADCRC, the following PAs have been released:

- **Novel Approaches to Study Polymicrobial Diseases (PA-04-093)**
<http://grants.nih.gov/grants/guide/pa-files/PA-04-093.html>
- **Simian Models for the Oral Biology of HIV Infection and AIDS-Related Oral Complication (PAS-04-066)**
<http://grants1.nih.gov/grants/guide/pa-files/PAS-04-066.html>

New NIH Roadmap Request for Applications (RFA)

The following NIH Roadmap RFA was recently released:

- **Molecular Libraries Screening Centers Network (MLSCN)**
<http://grants.nih.gov/grants/guide/rfa-files/RFA-RM-04-017.html>

New Initiatives

Marfan Syndrome Registry

NIDCR will participate in an initiative to establish a registry to collect and analyze clinical data and biological samples from patients with Marfan syndrome. The National Heart, Lung and Blood Institute and the National Institute of Arthritis and Musculoskeletal and Skin Diseases also are supporting this initiative in

conjunction with the National Marfan Foundation to provide a resource for the evaluation of disease progression, response to therapy, data for planning clinical trials, and tissue for genomic investigations. Marfan syndrome is an inherited connective tissue disorder that is associated with skeletal, cardiovascular, dental and ocular complications. The registry will be funded in FY 2005 for a period of five years.

Orofacial Pain Disorders

A new initiative is planned for FY 2006 entitled "The Role of Neuronal/Glial Cell Interactions in Orofacial Pain Disorders." The goal of the initiative is to stimulate basic research on the role of glial cells in orofacial pain disorders, and in particular, studies on the interactions between glial cells and neurons that lead to pathological pain states.

Update on AIDS Activities

Dr. Mostafa Nokta, director of the AIDS and Oral Manifestations of Immunosuppression Program, held a conference for NIDCR grantees awarded grants through RFA DE-00-002 (HIV/AIDS Associated Oral Viral Infections); RFA-DE-02-001 (Oral Transmission of HIV); and RFA-DE-02-007 (Exploratory/Developmental (R21) Awards For Research on AIDS/HIV Infection and the Oral Cavity). The meeting was held in Bethesda, MD on April 26-28. Participants discussed scientific advances in the pathogenesis of HIV/AIDS associated oral viral infections, and HIV pathogenesis and transmission. The conference also examined scientific gaps in these areas for future research directions and the development of research initiatives.

CENTER FOR BIOTECHNOLOGY AND INNOVATION

NIDCR recently established the Center for Biotechnology and Innovation (CBI), which seeks to develop the next generation of breakthrough biomedical technologies to improve oral health. To accelerate the technology development process, the CBI will rely on interdisciplinary research approaches, with an emphasis on basic and translational studies. The center also will establish strong working relationships with industry, while enhancing communication with other NIH Institutes and Centers, the Food and Drug Administration, and other Federal agencies. Further details about the CBI are available at: <http://www.nidcr.nih.gov/research/cbi/>

Responses to Requests for Applications (RFAs)

- Regenerative Dental Medicine (RFA-DE-05-005)
<http://grants1.nih.gov/grants/guide/rfa-files/RFA-DE-05-005.html>
Twenty letters of intent were received in response to this RFA. The application deadline was April 23; review will take place in September 2004. The RFA aims to promote research on the use of stem cells and bioengineering approaches for the repair and regeneration of orofacial tissues and organs. In particular, it encourages studies on the

understanding of the unique properties of embryonic and post-natal stem cells in orofacial tissues; the development of methods to induce appropriate stem cell expansion, differentiation and *in vitro* assembly of a functional tissue prototype unit; and the design and development of new bio-inspired materials for cell transplantation.

- **The Salivary Proteome: Catalogue of Salivary Secretory Components (RFA-DE-04-007)**
<http://grants.nih.gov/grants/guide/rfa-files/RFA-DE-04-007.html>
Eight applications were received in response to this RFA; the review of these took place on May 3. The RFA invited cooperative agreement applications aimed at generating a complete catalogue of salivary secretory components. The RFA emphasized multidisciplinary research using state-of-the-art sensitive and high throughput proteomic approaches to identify and characterize salivary proteins and protein complexes. Use of biocomputational approaches to achieve a comprehensive and accurately annotated knowledge base also was encouraged.

DIVISION OF POPULATION AND HEALTH PROMOTION SCIENCES

Technical Assistance Conference Held for RFA Applicants

The NIDCR Clinical Trials Program sponsored a Technical Assistance Conference on February 4 for extramural investigators interested in learning more about the General Dental Practice-Based Research Network RFA released on November 18, 2003:

<http://grants1.nih.gov/grants/guide/rfa-files/RFA-DE-05-006.html>.

Dr. Bruce Pihlstrom, Acting Director, DPHPS, and Dr. Richard Mowery, chief of the DPHPS Clinical Research Branch, reviewed the RFA requirements and answered questions from those who were present in the Natcher Conference Center on the NIH campus, as well as from those viewing the presentations via the web. Ms. Rebecca Roper, NIDCR scientific review administrator, reviewed the selection criteria that will be used to choose participants on the Special Emphasis Panel responsible for reviewing the applications. She also discussed the review criteria specific for this RFA.

New Requests for Applications (RFAs)

Since the last meeting of the NADCRC, the following RFA was released:

- **Prospective Studies on Craniofacial Pain and Dysfunction**
<http://grants2.nih.gov/grants/guide/rfa-files/RFA-DE-05-007.html>

New Program Announcements (PAs)

Since the last meeting of the NADCRC, the following PAs have been released:

- **NIDCR Small Research Grants for Data Analysis and Statistical Methodology (R03)**

<http://grants.nih.gov/grants/guide/pa-files/PA-04-091.html>

- **Developmental Projects in Complementary Approaches to Cancer Care**

<http://grants2.nih.gov/grants/guide/pa-files/PA-04-053.html>

New Notices

The following Notice was recently released:

- **Clarification to Request for Applications RFA-DE-05-006**

<http://grants.nih.gov/grants/guide/notice-files/NOT-DE-04-003.html>

Responses to Requests for Applications (RFAs)

- **State Models for Oral Cancer Prevention and Early Detection—Phase II (RFA-DE-04-005)**

<http://grants1.nih.gov/grants/guide/rfa-files/RFA-DE-04-005.html>

Eight applications were received in response to this RFA. A Special Emphasis Panel reviewed the applications on February 24.

- **NIDCR Exploratory and Developmental Grants in Clinical Research (RFA-DE-04-009)**

<http://grants1.nih.gov/grants/guide/rfa-files/RFA-DE-04-009.html>

Forty letters of intent were received in response to this RFA. Applications were due April 14 and will be reviewed in June.

New Initiatives

Dr. Albert Kingman, DPHPS Biostatistics Core Unit and Dr. Jeffrey Hyman, DPHPS epidemiologist, together with colleagues from the National Institute of Environmental Health Sciences, have received IRB approval for a study investigating possible leaching of Bisphenol A and its metabolites associated with the placement of dental composites. An interagency agreement is the mechanism planned for conducting this study.

Residency Program in Dental Public Health

Following the early 2004 meeting of the NIDCR Training Committee, two applicants have been selected for the Residency Program in Dental Public Health for the 2004-2005 Program Year. The two incoming residents are expected to begin their 12-month, full-time training program in July. The three current residents in Dental Public Health are completing their research projects and other program-related activities.

Health Literacy Projects

At the request of the Office of Disease Prevention and Health Promotion, OS, DHHS, Dr. Alice Horowitz, DPHPS, is assigned there two days a week to assist with health literacy projects that are now of high interest to DHHS Secretary Tommy Thompson and Surgeon General Richard Carmona. While working in

this office, Dr. Horowitz has initiated the development of health literacy benchmarks for agencies, health care providers, and individuals. Currently these benchmarks are undergoing DHHS review.

NIDCR/CDC Dental, Oral, and Craniofacial Data Resource Center (DRC)

The NIDCR/CDC Dental, Oral and Craniofacial Data Resource Center recently posted to its web site the March 2004 release of the Catalog of Surveys and Archive of Procedures Related to Oral Health. The release contains new survey entries along with updated survey information of entries already contained in the catalog. It is available free of charge on CD-ROM. To order the Catalog/Archive, go to:

<http://drc.nidcr.nih.gov/catalog.htm>

In addition, a draft of the 2003 Annual Report of Oral Health Statistics has been completed and Medical Expenditure Panel Survey (MEPS) data have been made available on the DRC web site query system. Currently, the DRC web site experiences over 2,800 page visits a month by the public.

Significant New Publications

Macek MD, Heller KE, Selwitz RH, Manz MC. Is 75 percent of dental caries really found in 25 percent of the population? *J Public Health Dent* 2004; 64:20-5.

Park DY, Ma DS, Horowitz AM. Oral health education courses for university students: why not?

J Public Health Dent 2004; 64:3-4

Mongeau SW, Horowitz AM. Assessment of reading level and content adequacy of oral cancer educational materials from USAF dental clinics. *J Cancer Educ* 2004; 19:29-36.

Baysac MAS, Horowitz AM, Ma DS. Oral Cancer information in health education textbooks. *J Cancer Educ* 2004; 19:12-6.

Reid BC, Hyman JJ, Macek MD. Race-ethnicity and untreated dental caries: The impact of material and behavioral factors. *Community Dent Oral Epidemiol* (in press).

Hyman JJ, Reid B, Cigarette smoking, periodontal disease, and chronic obstructive pulmonary disease. *J Periodontol* 2004; 75: 3-9.

Pillemer SR, Atkinson, JC, Kingman A, Kurrash R, Pando JA, Magno BV, Datiles MB, Macyncki A, Manny J, Fox PC. Pilot Clinical Trial of Dehydroepiandrosterone (DHEA) Versus Placebo for Sjogren's Syndrome. *Arthritis Care & Research* 2004 (in press).

Inna Belfer I, Wu T, Kingman A, Krishnaraju RK, Goldman D, and Max MB. Candidate Gene Studies of Human Pain Mechanisms: Methods for Optimizing Choice of Polymorphisms and Sample Size. *Anesthesiology* (in press).

Mankani MH, Kuznetsov SA, Avila NA, Kingman A, Robey PG. Bone formation in transplants of human bone marrow stromal cells and hydroxyapatite-tricalcium phosphate: prediction with quantitative CT in mice. *Radiology* 2004; 230: 369-376.

Imrey P & Kingman A. Statistical Strategies for Utilizing Non-Cavitated caries lesions as dependent variable to improve efficiency for demonstrating clinical efficacy or equivalence of caries products. *Adv Dent Res* (in press).

Dr. Ruth Nowjack-Raymer, director of the Health Disparities Research Program, co-authored a monograph entitled "Oral Health Promotion: Evaluation Tool Kit." The monograph is the product of a study designed to develop and validate standardized sets of outcome measures for cross study comparisons. The study focused on three target populations: parents and caregivers of pre-school children, 12-year-old children, and people over the age of 65 years. The monograph outlines principles and practices of oral health promotion evaluations, and provides an extensive catalogue of tested evaluation outcome measures for oral health promotion interventions.

DIVISION OF INTRAMURAL RESEARCH

Restoration and Renovation of Building 30

After the electrical fire of February 1, 3,000 cages of mice were successfully evacuated and relocated to the NIH Veterinary Resources Program facility, and 220 employees were placed in temporary space around the NIH campus. DIR principal investigators located in Building 10 and Building 49 graciously accommodated a large number of Building 30 employees. Electrical power was gradually restored to the building by speeding up an order that had been placed previously for a new generator, new transformers and new switch gears, and by continuation of rewiring of the building that was under way at the time of the fire. After several rounds of soot removal, installation of filters and recertification of life support systems and biological and chemical hoods, entry of personnel--except animal care staff and the Administrative Office Staff (located in Building 31)--was phased in and completed on March 22, thanks to the concerted effort of many.

The completion of the new Vivarium, which was delayed by the fire, is now scheduled for the beginning of June at which point the mice will return to Building 30. On the 4th floor, phase 3 renovations were restarted, and renovation of the 5th floor (South) Administrative Suite will commence in the near future. The Administrative Office, IT personnel (currently in Building 49) and Purchasing Office (currently in Building 10) will be reunited upon its completion (Spring,

2006). Based on the absence of two large groups (AO staff, animals and associated staff) from the building, renovation plans were modified to include the 3rd floor tower, most of 1st floor North (scheduled to begin in late spring), and of 5th floor North (scheduled to begin in late summer), thereby speeding up completion of the Building 30 renovation project. The 5th floor North space will be used, at least in part, for the recruitment of a Scientific Director.

Review by Board of Scientific Counselors

The Board of Scientific Counselors will review the Oral and Pharyngeal Cancer Branch on June 20-22. The review was delayed due to the fire in Building 30.

Significant New Publications

Philp D, Nguyen M, Scheremeta B, St-Surin S, Villa AM, Orgel A, Kleinman HK, Elkin M. Thymosin increases hair growth by the activation of clonogenic hair follicle stem cells. *FASEB J* 2004;18:385-387.

Leet AI, Chebli C, Kushner H, Chen CC, Kelly MH, Brillante BA, Robey PG, Bianco P, Wientroub S, Collins MT. Fracture incidence in polyostotic fibrous dysplasia and the McCune-Albright syndrome: impact of endocrine and phosphate disorders. *J Bone Miner Res* 2004;19:571-577.

Dohke Y, Oh YS, Ambudkar IS, Turner RJ. Biogenesis and topology of the transient receptor potential Ca²⁺ channel TRPC1. *J Biol Chem* 2004;279:12242-8.

Voutetakis A, Kok MR, Zheng C, Bossis I, Wang J, Cotrim AP, Marracino N, Goldsmith CM, Chiorini JA, Loh YP, Nieman LK, Baum BJ. Reengineered salivary glands are stable endogenous bioreactors for systemic gene therapeutics. *Proc Natl Acad Sci U S A* 2004;101:3053-8.

McCartney-Francis N, Jin W, Wahl SM. Aberrant Toll receptor expression and endotoxin hypersensitivity in mice lacking a functional TGF-beta1 signaling pathway. *J Immunol.* 2004 Mar 15;172(6):3814-21.

Chen W, Jin W, Hardegen N, Lei KJ, Li L, Marinos N, McGrady G, Wahl SM. Conversion of peripheral CD4⁺CD25⁻ naive T cells to CD4⁺CD25⁺ regulatory T cells by TGF-beta induction of transcription factor Foxp3. *J Exp Med* 2003;195:1875-86.

Sodhi A, Montaner S, Patel V, Román JG, Li Y, Sausville EA, Sawai ET, Gutkind JS. Akt plays a central role in sarcomagenesis induced by Kaposi's sarcoma herpesvirus-encoded G protein-coupled receptor. *Proc Natl Acad Sci* 2004;101:4821-4826.

INTERNATIONAL ACTIVITIES

Global Craniofacial Birth Defects Registry

As part of the NIDCR-World Health Organization (WHO) joint project on International Research on Craniofacial Anomalies, the International Centre for Birth Defects (ICBD) in Rome, Italy, has taken a lead role in developing a global craniofacial birth defects registry. To date, 53 birth defects registries from around the world have agreed to contribute to the global registry. Efforts continue to recruit even more registries, including the new National Birth Defects Prevention Network in the U.S. The global registry will be housed at ICBD in Rome, and ICBD will provide the data to WHO on a regular basis. Summary data and various data tables are available on a public web site through the WHO at:

<http://www.who.int/genomics/anomalies/idcfa/en/>

Researchers will be able to use these summary data and tables to explore potential research questions and generate hypotheses and protocols for more detailed studies. Access to case-level data will be granted to researchers who submit an application for further research, with access controlled by a steering committee established by WHO.

Meetings with International Representatives

- The NIDCR Director, together with Dr. Lois K. Cohen, Associate Director for International Health, and NIDCR intramural and extramural staff members, met with representatives of the Japanese dental school faculties. Discussions focused on capacity building for research within U.S. schools and how such initiatives may be relevant to the Japanese schools, which have similar problems in producing graduates who want to pursue clinical research careers.
- Professor B. Rager, Deputy Chief Scientist, Israel Ministry of Health and Ben Gurion University Medical School, visited the NIH campus and met with Dr. Cohen. They discussed issues of oral health research capacity building, including clinical research careers, women's health and research related to that topic, and science education initiatives for secondary schools in Israel and the U.S.
- Dr. Cohen met with two visitors from Rochester who are interested in promoting collaborative research between young Israeli investigators and U.S. scientists. Discussions focused on extramural mechanisms available to non-U.S. scientists and the NIH grants process.
- Dr. Cohen also met with the co-directors of the Executive Leadership in Academic Medicine (ELAM) program at Hahnemann-Drexel University of the Health Sciences and the President of Hadassah College about the potential development of a Middle East program to serve not only Israel, but also as a future bridge to peace project. They also talked about women's health research involving the dental school at the University of

Pennsylvania and potential participation in a U.S.-Israel Bi-National Symposium that would include oral health and women's health issues.

Meeting with Representatives of U.S.-Based International Dental Organizations

In a continuation of regular quarterly meetings, Office of International Health staff hosted representatives of U.S. based international dental organizations, including the ADA, AADR/IADR, ADEA/IFDEA, and PAHO on February 24. Participants shared information about current issues and planned activities that cut across education, research, and service domains, such as: accreditation of foreign dental schools; educational programs that may involve dental educators in teaching the teachers in developing countries; a planned first World Congress in Dental Education (2007) and pre-conferences/symposia in North America, Latin America/Caribbean, Africa, Asia, and Europe; updating the international collaborative research agenda involve NIDCR and the international community; oral health research; and the Global Forum on Health Research.

Lectures Presented

Dr. Cohen presented a seminar at the dental school of the University of North Carolina on the WHO International Collaborative Studies on Oral Health Outcomes and implications for international collaborative research. She also delivered the keynote address on "Women Leading Change: The Case for Dentistry" at both the annual meeting of the Iowa Dental Association and the annual session of the British Dental Association.

COMMUNICATIONS ACTIVITIES

NIDCR Staff Receive NIH Plain Language Awards

NIDCR made a strong showing in this year's NIH Plain Language Awards competition—the Institute received 9 of the 58 awards. The NIDCR winning products were: patient education publications on oral cancer, periodontal diseases, and Spanish language versions of materials on the oral complications of cancer therapies; web-based products, including the NIDCR web site homepage, web site oral health information index, and online publication order form; a press release on stem cells in baby teeth; and two journal articles. The NIH Plain Language awards ceremony was held April 20.

New Online Publication Order Form Available

NIDCR's new online publication order form enables patients and health care providers to easily place orders for NIDCR brochures. The order form, available at: http://www.nohic.nidcr.nih.gov/health/nohic_forms/orderpubs.asp, features colorful pictures and short descriptions of each publication. Also included are publications available in Spanish. The order form is easy to navigate and simplifies the ordering process for users.

New Publication Available on HIV and Mouth Problems

A new publication titled "HIV and Mouth Problems" is now available on the NIDCR web site. This publication for patients explains the most common oral problems linked to HIV and shows what they look like. It also describes where in the mouth they occur and how they are treated. To view the publication, go to: http://www.nidcr.nih.gov/health/Pubs/mouth_hiv/index.asp

National Oral Health Information Clearinghouse NOHIC Coordinating Panel

The coordinating panel convened on March 2 to explore the theme of developmental disabilities and oral health. Staff briefed the panel on the recently completed NOHIC project entitled *Practical Oral Care for People with Developmental Disabilities: Making a Difference*. The goal of this professional education initiative effort is to equip dental professionals with the basic information they need to deliver quality oral health care to people with developmental disabilities, specifically autism, cerebral palsy, Down syndrome, and mental retardation.

Institute staff also provided background on new funding opportunities that specifically include special needs in their scope, including R-21 exploratory and developmental grants and a program announcement addressing the oral health of persons with developmental disabilities, HIV/AIDS, and the elderly. The panel also heard presentations on the new initiative to establish practice-based research networks and on the NIH Roadmap and its specific impact on dental research.

DIVERSITY AND EEO ACTIVITIES

NIH EEO Restructure

The NIH Office of Equal Opportunity and Diversity Management (OEODM) and the EEO restructure transition team have drafted a proposed organization structure that centralizes all EEO program activities under the OEODM. The proposed structure establishes three divisions supporting policy and program development and evaluation, as well as a division of IC service teams for implementation of EEO policies and programs and EEO complaints management. The workgroup expects to submit a plan to the NIH Steering Committee for review and approval by July 2004, with a tentative effective date of October 1, 2004. The Department of Health and Human Services has hired a contractor to undertake a corporate restructure of the DHHS EEO program.

Affirmative Action Plan (AAP) Update

As of the first quarter FY 2004, the NIDCR workforce was comprised of 480 staff, including 249 employees, 149 trainees/fellows and 82 contractors, guest researchers, Inter-governmental Personnel Act staff and special volunteers. There were 32 employees with disabilities, accounting for 6.7 percent of the

workforce. The workforce profile included 25.8 percent White males, 25.2 percent White females, 23.0 percent Asians, 10.4 percent African Americans, 6.0 percent Hispanics, and 0.4 percent Native Americans; 9.2 percent of staff did not self-identify race/ethnicity.

The release of new labor force availability data for comparison is still pending from the U.S. Equal Employment Opportunity Commission. The EEOC has issued new guidance, Management Directive 715, for agencies to follow in implementing Federal EEO programs. This directive includes a requirement to identify systemic barriers to fair and equitable treatment of employees and to establish actions to eliminate identified barriers.

Recruitment and Education Outreach

The NIDCR Office of Diversity Management continued its participation in the NIH Native American Powwow Initiative to address health disparities and recruit Native Americans for training and employment opportunities. During FY 2004, NIDCR ODM staff exhibited at six Powwows, including the 21st Annual Gathering of Nations Powwow, in Albuquerque, New Mexico, held April 23-24.

The NIDCR participated in the annual Take Your Daughters and Sons to Work Day on April 22. Dr. Marian Young, chief of the NIDCR Molecular Biology of Bones and Teeth Unit, Craniofacial and Skeletal Diseases Branch, gave two presentations for students aged 8-15 on *"How to Make Bones and Teeth."* NIDCR staff also served on the planning committee and assisted with the overall coordination of the day. Approximately 1,200 students participated in the many events.

The NIDCR Diversity Program Manager served as a recruiter for the Department of Labor/Department of Defense Workforce Recruitment Program for students with disabilities. This program supports the Presidential mandate that the Federal Government hire 100,000 individuals with disabilities into the workforce by 2005.

Workplace Diversity Initiative

The NIDCR continued to conduct mandatory training for managers and supervisors on *"EEO and Diversity at Work."* The training is a collaborative effort developed and presented by the NIDCR, the National Institute of Diabetes and Digestive and Kidney Diseases, the National Institute of Child Health and Human Development, and the National Institute of Deafness and Other Communication Disorders/National Institute of Nursing Research Equal Employment Opportunity Managers. To date, 42 NIDCR managers have been trained. The training model will be available for presentation at other NIH Institutes and Centers.

The NIDCR ODM staff continued to support the NIH Special Emphasis Program observances. Staff served on the planning committee for the NIH Martin Luther King, Jr. Birthday observance, African American History Month, and Women's

History Month. These observances provide a venue for NIH managers and employees to expand their understanding of the diverse cultures and issues that arise in the workplace.

PERSONNEL

- Dr. Sven-Ulrik Gorr joined the NIDCR in March as director of the Applied and Translational Research Program, Center for Biotechnology and Innovation (CBI). Previously he was an associate professor at the University of Louisville School of Dentistry where he directed the Laboratory for Cell Biology and held a joint appointment in the Department of Biochemistry in the School of Medicine. He received training in epithelial cell biology at the University of Copenhagen, Denmark and at the University of Basel, Switzerland. While at Louisville, Dr. Gorr developed the research area of the cell biology of secretion, focusing on both exocrine and endocrine glands. Specifically, his studies looked at the storage and regulated secretion of salivary proteins from the parotid gland. NIDCR has funded Dr. Gorr's research on secretory mechanisms since 1995. In addition, he has been a co-investigator on training grants and has served on NIH and NSF study sections since 1999.
- Dr. J. Silvio Gutkind, chief of the NIDCR Oral and Pharyngeal Cancer Branch, was the 2004 recipient of the Oral Medicine and Pathology Research Award from the International Association for Dental Research. Dr. Gutkind's research addresses the molecular basis of cancer through studies of normal and aberrant functions of molecules involved in the transduction of proliferative signals. His laboratory has made seminal contributions to the field and has helped elucidate some of the basic molecular mechanisms whereby cell-surface receptors regulate the nuclear expression of growth-promoting genes. Dr. Gutkind also heads a multi-institutional effort aimed at elucidating the molecular mechanisms that contribute to the evolution of squamous cell carcinomas, as well as how to use this knowledge to develop molecular markers of disease progression and novel therapeutic approaches in oral malignancies. The IADR Oral Medicine and Pathology Award is supported by Sunstar Butler and consists of a cash prize and a plaque. It is one of 15 Distinguished Scientist Awards given annually by the IADR.
- Dr. Lillian Shum, director of the Physiology, Pharmacogenetics and Injury Program, and her collaborators were awarded the 2004 William J. Gies Award for the best paper published in the *Journal of Dental Research* during the preceding year. The paper was entitled "TGF-beta-3 promotes scarless repair of cleft lip in mouse fetuses" and appeared in issue 81, pages 688-694. The award was presented to Dr. Ohishi who represented

the group during the Opening Ceremony of the 82nd IADR General Session in Hawaii.

- Ms. Gabrielle Cannick, a returning DMD/Ph.D. student from the Medical University of South Carolina, was awarded first place for the Pre-doctoral Dental Student Merit Award competition from the American Association of Public Health Dentistry. Her project was entitled, "Oral Cancer Knowledge Among South Carolina Dental Students."