Department of Health and Human Services
National Institutes of Health
National Institute of Nursing Research
Minutes of the National Advisory Council for Nursing Research

September 26–27, 2006

The 60th meeting of the National Advisory Council for Nursing Research (NACNR) was convened on Tuesday, September 26, 2006, at 1:05 p.m. in Conference Room D, Building 45, National Institutes of Health (NIH), Bethesda, Maryland. The first day and open session of the meeting adjourned at approximately 4:50 p.m. The closed session of the meeting, which included consideration of grant applications, was convened the next day, Wednesday, September 27, 2006, at 9:00 a.m. and continued until adjournment at on the same day at 9:50a.m.Dr. Patricia A. Grady, Chair, NACNR, presided over both sessions of the meeting.

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OPEN SESSION

I. CALL TO ORDER, OPENING REMARKS, COUNCIL PROCEDURES, AND RELATED MATTERS

Dr. Grady called the 60th meeting of the NACNR to order, welcoming all Council members, visitors, and staff. She introduced two new Council members, Dr. Clarann Weinert, Director of the Center for Research on Chronic Health Conditions in Rural Dwellers at Montana State University, and Ms. Joan Lancaster, Director of Government Relations at the Mountain States Health Alliance in Tennessee, who serves as liaison between community health providers and vulnerable people in need of health care. Another new Council member, Dr. Randall Curtis,

Professor of Medicine, University of Washington, was unable to attend the September NACNR meeting but looks forward to joining the Council in January. Dr. Curtis's area of research focuses on end-of-life issues.

Conflict of Interest and Confidentiality Statement

Dr. Mary E. Kerr, Executive Secretary, NACNR, reminded attendees that the standard rules of conflict of interest applied throughout the Council meeting. Briefly, all closed session material is privileged, and all communications from investigators to Council members regarding any actions on applications being considered during the Council should be referred to NINR staff. In addition, during either the open or the closed session of the meeting, Council members with a conflict of interest with respect to any topics or any application must excuse themselves from the room and sign a statement attesting to their absence during the discussion of that application. Dr. Kerr also reminded NACNR members of their status as special federal employees while serving on the Council, and that the law prohibits the use of any funds to pay the salary or expenses of any federal employee to lobby or otherwise influence State legislatures or Congress. Specific policies and procedures were reviewed in more detail at the beginning of the closed session and were available in Council notebooks.

Minutes of Previous NACNR Meeting

Standing Council members received a copy of the minutes of the May 24-25, 2006, NACNR meeting by electronic mail. No changes or corrections to the minutes of the May 2006 Council meeting were suggested during the September meeting. A motion to accept the minutes of the

May 24-25, 2006, Council meeting as circulated was proposed, seconded, and approved unanimously. Any comments, corrections, and changes to the May meeting minutes identified at a later time should be forwarded to Dr. Grady or Dr. Kerr. The minutes of each quarterly NACNR meeting are posted on the NINR Web Site (http://ninr.nih.gov/ninr).

Dates of Future Council Meetings

Dates of future meetings in 2007 have been approved and confirmed. Council members should contact Dr. Grady or Dr. Kerr regarding any conflicts or expected absences.

2007

- January 23-24 (Tuesday-Wednesday)
- May 22-23 (Wednesday-Thursday)
- September 25-26 (Tuesday-Wednesday)

II. REPORT OF THE DIRECTOR, NINR (Dr. Patricia Grady, Director, NINR)

The Director's report focused on updates since the last Council meeting and on current and impending activities, initiatives, and updates related to NINR's 20th anniversary, budget, the Department of Health and Human Services (DHHS)/NIH, nursing issues in the news, and NINR.

NINR 20th Anniversary—The celebration of NINR's 20th anniversary on the NIH Campus, began on October 11, 2005, with the symposium entitled , "Nursing Research: Changing Practice, Changing Lives," which highlighted the many scientific achievements including self-

management, HIV/AIDS, coping skills, and biobehavioral studies. Numerous other events marking the anniversary have been held in the past year and have proven to be energizing as staff and participants reflected upon and acknowledged the many accomplishments in nursing research in the past two decades and looked ahead to the future. Among these many events were the mentor-mentee dialogues with the regional research societies; co-sponsorship with the NIH Office of Science Education and Science and the Cinema of the presentation of the film "Wit and My Life," which included thought-provoking discussions focused on of end-of-life issues. A joint collaborative conference was held with the NIH Clinical Center, "Celebrating Nursing Science: The Research-Practice Link," which highlighted seminal studies that have been translated from the research setting into practice. The symposium was attended by several hundred participants from across the country.

The year-long celebration culminates with three key events: the 2006 NINR 20th Anniversary Symposium, "Nursing Research: Looking to the Future," on October 11 on the NIH Campus, followed by the 2006 Nightingala the evening of October 11, and the State of the Science Congress on Nursing Research on October 12-14. Activities associated with the Nightingala and the Congress will be held in Washington, DC. The Honorable John Porter, a strong supporter of the NIH who was instrumental in the NIH doubling initiative, will provide closing remarks for the on- NINR Campus symposium. The theme of the Nightingala is "Nursing Research: Imagine the Future, Celebrating NINR's 20th Anniversary," with keynote speaker Cokie Roberts, nationally renowned reporter and advocate for women's health and nursing research. More information about these events may be found at the NINR Web Site. In reviewing the many advances in nursing research during NINR's tenure, Dr. Grady pointed to some important and notable success stories that have impacted public health directly and enriched nursing

science, including the role of hospital nurse staffing in improved patient outcomes; "Sister to Sister," the African American women's health project for prevention of AIDS; the Cardiovascular Health in Children and Youth Program (CHIC) to reduce heart disease risk in urban and rural school-aged populations; Tomando Control de su Salud; (Taking Control of Your Health) the Stanford Patient Education Research Center, which has pioneered and advanced self-management research and programs; and coping skills training for children with chronic illnesses such as diabetes.

Budget Update—Recent appropriations since the end of the NIH doubling period in Fiscal Year 2005 (FY05) show a flattening of the NIH budget. The President's Budget Request for FY07, which was presented on February 6, 2006, includes no change to the overall NIH budget from FY06 and a decrease of 0.58 percent in the NINR allocation, to $136,550,000. Congress has not yet approved a final budget. There was an increase in the number of applications submitted to NINR and to NIH as a whole. However, given recent budget reductions, the success rates across NIH decreased from approximately 30 percent from FY98 through FY03 to approximately 22 percent in FY05. The NIH success rate is expected to decrease further to about 19 percent in fiscal years 2006 and 2007. NINR's success rate is expected to be approximately 21 percent, in FY07 as a result of turnover of R01s, which will free up new monies appropriated for research funding. Even in a climate in which budget constraints exist, NINR continues to fund good science and strongly encourages new and experienced investigators to submit applications to support their research.

DHHS/NIH Update—DHHS recently announced that Rear Admiral Dr. Kenneth Moritsugu will serve as Acting Surgeon General, replacing Dr. Richard Carmona, whose tenure as Surgeon

General ended in July. This month, the National Cancer Institute (NCI) welcomed Dr. John Niederhuber as its 13th Director; Dr. Neiberhuber has been serving as Acting NCI Director since the departure of Dr. Andrew von Eschenbach to the position of Acting Commissioner, U.S. Food and Drug Administration.

Dr. Grady reported on Congress's efforts to reauthorize the NIH through the "National Institutes of Health Reform Act of 2006" (HR 6164), which was passed by the House Energy and Commerce Committee on September 20, 2006, and by the full House on September 26, 2006. The last NIH reauthorization was in 1992. The current legislation includes several key provisions, including a 5 percent annual increase in the NIH budget from FY06-FY09; creation of a "Common Fund" in which up to 5 percent of the NIH budget will be set aside for cross-IC research initiatives; establishment of a formal strategic planning process for the entire NIH research portfolio through the new Division of Program Coordination, Planning, and Strategic Initiatives (OPASI), which combines two offices within the Office of the Director and would institutionalize concepts and initiatives such as the NIH Roadmap; the requirement that future IC budget increases be tied to cross-IC collaborations, the proposed bill also gives the NIH Director the authority to increase or decrease the number of institutes, an area in which NINR is already active; and caps the number of ICs at 27 (i.e., the current number). Final passage by the full Congress is expected by the end of 2006. Updates may be found online by visiting the following Web site: http://olpa.od.nih.gov/tracking/109/house_bills/session2/hr-6164.asp.

NIH recently announced the new award K99/R00 NIH Pathway to Independence Award, (http://grants2.nih.gov/grants/guide/pa-files/PA-06-133.html). This transitional postdoctoral award provides for 5 years of support in two phases, including 1-2 years of mentored support at

NIH and up to 3 years of independent support. It is an NIH-wide award analogous to the NINR Intramural Program's K22 Career Transition Award. NINR is one of several ICs supporting the new award, and new post-docs and investigators are encouraged to pursue this opportunity.

The inaugural conference of the Roadmap initiative known as the Patient-Reported Outcomes Measurement Information System (PROMIS) was held September 11-13, 2006, with the theme, "Building Tomorrow's Patient-Reported Outcome (PRO) Measures." The meeting focused on PROMIS activities, including identifying existing and developing systematic methods and databases for quantifying PROs, which is important to clinical research and practice. NINR staff have played a significant role in this program (http://www.nihpromis.org/). Another Roadmap initiative, the NIH Director's Pioneer Award, was recognized at the Second Annual Pioneer Award Symposium on September 19, 2006. The Pioneer Award promotes high-risk innovative research that might otherwise not be funded; the program, which is now in its third year, received more than 500 applications in the last review cycle. Additional information on the NIH Roadmap, including a new fact sheet on this initiative, may be found at http://nihroadmap.nih.gov/.

NINR and nursing research are represented at a range of NIH meetings and conferences. The first Symposium of the NIH Pain Consortium, co-chaired by Dr. Grady, was convened April 17-18, 2006, on the NIH Campus. There are still significant gaps in knowledge in this area of research, which remains an unfunded mandate, and the focus of the first meeting was on advances in pain research. The next meeting is scheduled for March 2007. More information about the Consortium may be found at http://painconsortium.nih.gov. NINR and NINR-funded investigators also are actively involved in initiatives and activities supported by the NIH Office

of Research on Women's Health (ORWH), including a conference on Caregiving on June 13, 2006. NINR also participated in the 10th anniversary celebration of the Office of Behavioral and Social Sciences Research (OBSSR), June 21-22, 2006, at the Natcher Conference Center on the main NIH Campus in Bethesda. NINR-supported research was showcased at this celebration (http://obssr.od.nih.gov/OBSSR10th/index.htm). Dr. Grady joined other IC Directors for the Annual NIH Leadership Forum on September 7-8, 2006, which involves discussion of the status of pressing issues at the NIH and identifying strategies for the future. Key issues at this year's Forum included operating effectively within current budget constraints, protecting core research activities and initiatives, and review of research applications.

Nursing Issues in the News—Dr. Grady discussed three major issues facing the nursing community in the coming years and the potential impact of these issues: (1) current and anticipated nurse shortages, (2) the graying of the American population, and (3) increased use of technology in health care. Fundamental to addressing these issues is identifying and implementing approaches for training, education, experiential preparation, and research that enhance the roles of nurses and nursing science in navigating the needs and gaps in health care and health monitoring in the next several decades. A recent Harris poll found nurses to be among the most prestigious occupations, along with firefighters and doctors. Soon-to-be-released Gallup poll is expected to trend in the last 9 of 10 years showing that Americans consider nurses the most trusted and valued health professionals in the country. In other news, an article published in the August 31, 2006, issue of the *New England Journal of Medicine* reported that overall spending on health care per year of life is a good value despite the relatively high costs of care; this longitudinal study included assessments at four age groups from 1960 through 2000 (Cutler et al., 355:920-927).

NINR Update—The NINR Strategic Plan for 2006-2010 has been finalized and will be available online and at the State of the Science Congress in October. Electronic and paper copies are available upon request. New announcements include Requests for Applications on HIV Infection and Transmission in Young People and the trans-NIH initiative Genome-Wide Association Studies on Genes and the Environment, and Program Announcements (PAs) on School-Based Interventions, Translational Research for the Prevention of Diabetes and Obesity, and Pain Management. The Annual NINR Summer Genetics Institute, a 2-month intensive research training program, was held June 5-July 28, 2006. The productivity and success rate across all funding mechanisms of the graduates of this program is noteworthy at approximately 50 percent. Two new students have joined the Graduate Partnership Program, a competitive program in which graduate students receive training on Campus through NIH intramural programs. New NINR participants include Ms. Darlene Perkins from the Johns Hopkins University, and Ms. Taura Barr from the University of Pittsburgh. NINR's K22 Transition Award, which supports doctorally prepared nurse scientists from postdoctoral training through appointment to tenure-track academic positions, has had five recipients "graduate" from this program with recognition.

Since the last Council meeting, staff and NINR-funded investigators have been recognized, cited, interviewed, and published in a range of venues and formats. Dr. Paul Cotton, Program Director for NINR's Health Behavior and Minority Health portfolio, received the Catherine Cowell Award from the Food and Nutrition Section of the American Public Health Association. A graduate of the K22 program, Dr. Susan Dorsey, University of Maryland, had a pivotal research paper published in *Neuron*; Dr. Karen Hassey Dow was appointed to the National Cancer

Advisory Board; Dr. Phoebe Williams, Professor, University of Kansas, received the National Coalition of Ethnic Minority Nursing Association's 2006 Mentor Award; and Dr. Usha Menon, Associate Professor, University of Illinois at Chicago College of Nursing, received the "Brilliant Future New Investigator Award" from the American Academy of Nursing/Council for the Advancement of Nursing Science. Further information and updates on NINR training programs and research initiatives, announcements, meetings, and other activities can be found by visiting the NINR home page at http://ninr.nih.gov/ninr/.

III. HEALTHIER LIVES THROUGH BEHAVIORAL AND SOCIAL SCIENCE RESEARCH PARTNERSHIPS (Dr. David Abrams, Director, OBSSR)

Social and behavioral factors are associated with essentially every aspect of health and illness, with an estimated 70-80 percent of optimal well-being and quality of life tied to behavior at the individual through societal levels. Social and behavioral factors do not function independently of biology, however. One estimate of the impact of various "domains" on early deaths suggests that 40 percent are attributable to behavioral patterns, 30 percent to genetics, 15 percent to social circumstances, 10 percent to deficiencies in health care, and 5 percent to environmental exposures (McGinnis et al., *Health Affairs*, 2:78-93, 2002). Thus, behavior is at the crossroads of biology and society, and partnering biomedical sciences with population, public health, and societal sciences may provide the optimal path to improving the health of the general public as well as individuals.

Challenges in the 21st Century include emerging public health threats such as the unsustainable cost of health care that is close to 20 percent of gross domestic product, obesity and pandemic flu, natural and human-made disasters, and an aging population; and persistent public health

issues such as disparities in health despite identification of many contributing factors, tobacco use, and a "toxic" environment that promotes a sedentary life and poor nutrition. OBSSR faces the task of addressing the depth and breadth of this area of research including dissemination, implementation, and community participation and redissemination and more recently, international issues and macroeconomic forces.

Increased awareness about the findings and impact of this field also is needed, Dr. Abrams argued, because the research community often does not realize or recognize that validated tools, measures, and outcomes generated through behavioral and social sciences research have been used to advance clinical and public health studies, policies, and best practices.

OBSSR's vision is to mobilize the biomedical, behavioral, and social sciences research communities as partners to solve the most pressing health challenges faced by our society. As part of its 10-year anniversary, OBSSR developed a new strategic prospectus, which describes four programmatic areas to achieve the Office's mission: "Next generation" basic science, interdisciplinary research, systems-thinking approaches to health, and problem-based research. This approach builds on the basic mechanisms for behavioral and social sciences research, as described by the Working Group of the NIH Advisory Committee to the NIH Director[1]: macro-social behavior (e.g., migration); social and interpersonal behavior (e.g., ethnic bias); perception, learning, emotion, and cognition (e.g., exercise and cognition); early development (e.g., infant temperament); gene-environment interactions[2] (e.g., biosocial stress makers; the Genes and Environment Initiative [GEI]); technology, measures, and methods (e.g., biobehavioral markers);

[1] http://obssr.od.nih.gov/Documents/BSSRCC/Meetings/Minutes/Minutes_2005/Basic%20Beh%20Report_complete.pdf
[2] The 2006 Institute of Medicine (IOM) report, "Genes, Behavior, and the Social Environment," may be found at http://www.iom.edu/CMS/3740/24591/36574.aspx

and cross-cutting research (e.g., health disparities, early life events, adherence, social support, health services).

OBSSR works with its NIH partners to identify problems in population health where behavioral and social scientists, biomedical researchers, practitioners, and health services decisionmakers can work together to develop prevention, treatment, and policy interventions and to accelerate their translation and adoption. Just a few examples in which simulation modeling and experimentation that considers the "whole system" may apply are obesity, pandemic flu, terrorism, diabetes, health literacy, smoking cessation, and health disparities. Several sources of funding for an integrated model are available and include the NIH Roadmap, the NIH Neuroscience Blueprint, OPASI, and other agencies such as the National Science Foundation and the Centers for Disease Control and Prevention. More information may be found at OBSSR's home page (http://obssr.od.nih.gov).

IV. BEHAVIOR-ENVIRONMENT INTERACTIONS—GENE EXPRESSION: ENVIRONMENTAL LINK IN CEREBRAL ISCHEMIA (Dr. Tess Briones, Department of Medical-Surgical Nursing, University of Illinois at Chicago)

The injury model used in Dr. Briones' studies involves transient global ischemia (TGI), which is seen in clinical conditions such as the acute phase of severe traumatic head injury, after cardiac arrest, and coronary artery bypass grafting, and which results most commonly in memory impairment and motor deficits.

The research team designed interventions and rehabilitation strategies that target the areas of the brain involved in these processes to enhance recovery. The environmental strategies used as part

of rehabilitation include a complex/enriched environment (EC), complex motor training, and exercise and control housing. The EC uses a large cage that houses multiple rats exposed to a variety of toys to engage visual, auditory, and tactile senses and that provides for social interaction and physical activity. The control group is comprised of rats housed in standard laboratory cages. Function is evaluated using the water maze test, the gold standard for assessing memory impairment, rope climbing to test motor strength and ability, and rotarod tests to assess motor coordination and balance.

Initial findings indicated that the primary mechanisms involved in environmentally induced brain plasticity following rehabilitation after TGI involve neurogenesis, increased synaptic connectivity, and increased glial processes to support neuronal growth (Sutherland et al., submitted to *Behavioural Brain Res*). Subsequent genetic analyses found that short-term EC exposure increased the expression of genes related to neuronal growth, synaptogenesis, and neurotransmission, while long-term EC experience increased expression of genes related to protein processing, neuronal signaling, and apoptosis. Short-term exercise and complex motor training increased expression of genes related to protein synthesis and stress, whereas over a longer period of time, exercise and complex motor training increased expression of genes related to phosphorylation/dephosphorylation, protein processing, and apoptosis. These results show that the rehabilitative interventions used in this animal model induce expression of genes associated with neuronal growth and synaptogenesis and, in turn, enhance brain plasticity.

Further analysis explored whether rehabilitation training after cerebral ischemia can enhance myelination to counter the destruction of white matter tracks often seen following cerebral ischemia (Briones at el., submitted to *Behavioural Brain Res*). Gene and protein expression

studies examined the impact of each intervention on myelin basic protein (MBP) gene expression, MBP protein expression, and degree of myelination. Results indicated that EC housing and complex motor training (AC) increased the expression of the MBP gene after cerebral ischemia. A corresponding increase in MBP protein expression was seen in ischemic rats housed in both the EC and AC environments. An association between increased MBP expression and enhanced myelination also was observed in both the EC and AC groups. For all measures, expression was not augmented in either the treadmill/exercise or control groups. The lack of increased expression in the exercise group may be due in part to forcing animals to continue the treadmill exercise if they stop, thereby causing them to experience stress.

A third analysis sought to determine whether rehabilitation training could mitigate ischemia-induced oxidative DNA damage and promote behavioral recovery (Briones at el., submitted to *Behavioural Brain Res*). Prior studies showed that waiting 3 days after inducing ischemia to start rehabilitation failed to stem cell loss in the hippocampus. On the basis of this information, Dr. Briones and her colleagues revised their studies to initiate rehabilitation within 24 hours after ischemia. Photomicrograms show less DNA damage in ischemic rats placed in the EC environment compared with all other groups, including the AC and exercise groups. A similar result was found for hippocampal cell loss, with rats from the EC group showing 30 percent less cell loss than animals in the other three groups. Long-term memory assessment using the water maze test showed that the performance of ischemic animals placed in the EC environment was significantly superior to animals in all other groups. Thus, the complex/enriched environment that employed multi-sensory stimulation, which targets both the striatum and the hippocampus, appeared to be more effective than the other interventions in preventing DNA damage and cell loss in the hippocampus and in cognitive and physical recovery from cerebral ischemia.

In summary, environmental stimulation during the recovery period after cerebral ischemia may be an appropriate therapy to increase the brain's ability to compensate for injury and prevent its unwarranted consequences. Results of these studies are potentially clinically important because there currently are no established therapies to decrease damage to the brain following injury despite the availability of numerous drugs that have been developed and tested.

V. UPDATE ON NINR BIOBEHAVIORAL RESEARCH (Dr. Kathy Mann Koepke, Neuroscience Program Director/Health Science Administrator, Office of Extramural Activities, NINR)

Biobehavioral research involves a strategy to study health and disease using the whole body to predict and modify outcomes. As described in the NINR Strategic Plan for 2006-2010, this field of investigation encompasses the interactions among biological, behavioral, and social factors, including physical environment and genetic endowment, and their effect on outcomes. These complex interactions are influenced by and/or affect health and disease, well-being, and prosperity and impact an individual's biological and behavioral responses.

NINR areas of research emphasis on biobehavioral research identified in the Institute's Strategic Plan include promoting health and preventing disease, improving quality of life (with a focus on self-management, symptom management, and caregiving), eliminating health disparities, and conducting end-of-life research. Studies are cross-cutting across NINR's research portfolios. Recent NINR-sponsored initiatives in support of this research area include "Biobehavioral

Methods to Improve Outcomes Research" (PA-05-142); "Mechanisms, Models, Measurement, and Management in Pain Research" (PA-06-54); "Symptom Clusters in Cancer and Immune Disorders" (PA-05-004); and "Reducing Preterm and Low Birth Weight in Minority Families" (PA-04-027). NINR also has served as a co-sponsor of collaborative research projects that have a biobehavioral focus, including investigations on methods and measurements, long-term weight maintenance, complementary approaches to cancer, and sleep and sleep disorders.

Research in the area of health promotion and disease prevention indicates that smoking during pregnancy predicts overweight in children through at least age 7 (Salsberry and Reagan, *Pediatrics* 2005); that a reduction in the number of hours of sleep during pregnancy per night from 8 hours to 6 hours nearly doubles the length of labor from about 17 hours to 30 hours (Lea and Gay, *Am J Obst Gyn* 2004); and that shortened sleep can significantly increase the concentration of C-reactive protein in the blood, which serves as a marker of inflammation and an indirect marker of risk for cardiovascular disease and other comorbidities.

NINR has funded a broad range of research focusing on improvement in quality of life, health disparities, and end-of-life issues. In one study, dyspnea self-management alone and self-management plus four exercise sessions or 24 exercise sessions supervised over 2 months all showed improvement in this condition; the greatest improvement was seen among those at greatest risk for dyspnea who followed the longer-term exercise program plus self-management (Nguyen and Carrieri-Kohlman, *Psychosomatics* 2005). A second self-management study demonstrated that a 90-minute intervention was as effective as a comprehensive treatment program regarding quality of life (bowel symptomology) at 12 months post-intervention among women with irritable bowel syndrome (IBS); the comprehensive intervention initially was most

effective, and both interventions were consistently more effective ($P < 0.05$) over time than standard care for IBS (Heitkemper et al., *Clin Gastroent Hepatol* 2004). Research conducted at the University of Arizona found a clear difference in working memory among children with leukemia treated with methotrexate; children given a higher dose of the drug (2 g/m^2) over 4 hours had significantly poorer memory 1 year post-treatment compared with children given a lower dose (1 g/m^2) over 24 hours ($P < 0.05$) (Carey et al., *J Ped Psych* 2006). Using an animal model of stroke, Hurn, Craft, and colleagues (*Stroke* 2005) showed that social interaction (i.e., pairing animals versus isolating individuals) improved outcome (percent infarct) in males and females; the finding was statistically significant ($P < 0.05$) in males. A comprehensive study on the status of male versus female spousal caregivers of persons with Alzheimer's disease indicated that females fared worse than males in several emotional and biological measures of stress (e.g., perceived stress, subjective caregiver burden, anxiety, depression, quality-of-life indices, natural killer cells) (Thompson et al., *Biol Res Nurs* 2004).

Future themes in this area of research will focus on the development of technologies to enhance biobehavioral measurement, exploration of designs and methods to evaluate the effectiveness of integrated biological and behavioral interventions, the biological basis and predictors of response to behavioral interventions and the behavioral and psychosocial basis and predictors of biological response, incorporation of biobehavioral methods and models into end-of-life research, and increased interdisciplinary training opportunities for biobehavioral investigators.

VI. NINR STRATEGIC PLAN, 2006-2010 (Dr. Patricia Grady, Director, NINR)

Dr. Grady thanked Council members and NINR staff as well as members of the Council's Strategic Plan Workgroup and Subcommittee for their thoughtful contributions and hard work over the past year in developing, preparing, and finalizing the NINR Strategic Plan, 2006-2010, which will guide the Institute over the next 5 years. Comments on the draft NINR Strategic Plan, 2006-2010, as discussed during the May 2006 Council meeting and previously, have been addressed and incorporated into the final Plan. Council members are acknowledged in the document as participants in the process of developing the Plan. The NINR Strategic Plan for 2006-2010 will be featured at the 2006 State of the Science Meeting on October 11, at which time electronic copies of the Plan will be available. The Plan also is posted on NINR's Web page (http://ninr.nih.gov/assets/Documents/NINR_StrategicPlan.pdf).

Following this presentation and discussion, Dr. Grady thanked participants and attendees for their time and interest and then adjourned the open session of the meeting.

CLOSED SESSION

This portion of the meeting was closed to the public in accordance with the determination that this session was concerned with matters exempt from mandatory disclosure under Sections 552b(c)(4) and 552b(c)(6), Title 5, US Code, and Section 10(d) of the Federal Advisory Committee Act, as amended (5, USC Appendix 2). Members absented themselves from the meeting during discussion of and voting on applications from their own institutions or other applications in which there was a potential conflict of interest, real or apparent. Members were asked to sign a statement to this effect.

REVIEW OF APPLICATIONS

The members of the NACNR considered 43 research and training grant applications on which NINR was the primary Institute; these applications requested a total of $ $8,664,885 (direct costs year 01). The Council also considered 79 applications on which another Institute/Center was primary and NINR was secondary; these applications requested a total of $ 23,227,175 (direct costs year 01). The Council concurred with the IRG recommendations on these 122 grant applications.

ADJOURNMENT

The 60th meeting of the NACNR was adjourned at 9:50 a.m. on September 27, 2006.

CERTIFICATION

I hereby certify that the foregoing minutes are accurate and complete.

Patricia A. Grady, Ph.D., R.N., F.A.A.N
Chair
National Advisory Council for Nursing Research

Mary E. Kerr, Ph.D., R.N., F.A.A.N.
Executive Secretary
National Advisory Council for Nursing Research