

Minutes
Health Research Advisory Committee
December 8, 2010
Pennsylvania Department of Health, Bureau of Health Statistics and Research
6th Floor Forum Place Building
Harrisburg, Pennsylvania

Committee Members Present:

Dwight Davis, MD, Professor, Pennsylvania State University College of Medicine and Director of Cardiac Rehabilitation, Hershey Medical Center (via teleconference)
Michael Huff, RN, Acting Secretary of Health and Chair of the Committee, Commonwealth of Pennsylvania (afternoon only)
Lewis Kuller, MD, DrPH, Professor of Epidemiology and University Professor of Public Health, Graduate School of Public Health, University of Pittsburgh
Michael Parmacek, MD, Herbert C. Rorer Professor of Medical Sciences and Director of the Penn Cardiovascular Institute, University of Pennsylvania School of Medicine (via teleconference)
Michael V. Seiden, MD, PhD, President and Chief Executive Officer, Fox Chase Cancer Center
Lisa Staiano-Coico, PhD, President, The City College of New York (via teleconference, afternoon only)

Department of Health Staff:

Cathy Becker, MPH, Health Research Program Manager, Bureau of Health Statistics and Research
Christine Dutton, Esq, Chief Legal Counsel (afternoon only)
Keith Fickel, Esq, Senior Counsel, Office of Legal Counsel (morning only)
Dwayne Heckert, Legislative Specialist
Diane Kirsch, RHIA, CTR, Public Health Program Administrator, Health Research Program, Bureau of Health Statistics and Research
John Koch, Program Analyst, Health Research Program, Bureau of Health Statistics and Research
Marina Matthew, RHIA, Director, Division of Statistical Registries
Patricia W. Potrzebowski, PhD, Director, Bureau of Health Statistics and Research
Robert Torres, JD, Deputy Secretary for Administration

Others in Attendance:

John Anthony, Project Associate, Pennsylvania State University
Mel Billingsley, PhD, President and CEO, Life Science Greenhouse of Central Pennsylvania
Alan Flake, MD, Children's Hospital of Philadelphia
John Gearhart, PhD, Director, Institute for Regenerative Medicine, University of Pennsylvania
John Giannelli, Government Relations, Obermayer Rebmann Maxwell & Hippel, LLP
Jean Givey
Mark T. Greenberg, PhD, Pennsylvania State University

George T. Kenney, Jr., Director, Commonwealth and Federal Affairs, Temple University
Rolf Loeber, PhD, University of Pittsburgh
Margaret C. McDonald, PhD, MFA, Associate Vice Chancellor for Academic Affairs, University of Pittsburgh
Michael R. Rickels, MD, Assistant Professor of Medicine, University of Pennsylvania
Joy Soleiman, MPA, Clinical Administrator, Jefferson Kimmel Cancer Center, Thomas Jefferson University
Liana Soyfer, Project Coordinator, University of Pennsylvania
Kenneth S. Zaret, PhD, Associate Director, Institute for Regenerative Medicine, University of Pennsylvania

Call to Order

Deputy Secretary for Administration Robert Torres called the meeting to order at 9:05 a.m. on Wednesday, December 8, 2010 in the 6th floor conference room of Forum Place building in Harrisburg. Mr. Torres stated that Acting Secretary of Health Michael Huff was delayed and would join the meeting later. Mr. Torres welcomed Committee members and others to the meeting. He announced that the meeting had two purposes: first, to hear presentations from the 2007 nonformula grantees and second, to further discuss and finalize the research priorities for the nonformula funds for the 2011-2012 state fiscal year.

Minutes of the February 8, 2010 Meeting

When a quorum of members was present in person or via telephone, Mr. Torres stated that the minutes of the February 8, 2010 meeting were not voted on at the November committee meeting because a question was raised about the precise wording of a motion on page 11 in the minutes. After the November committee meeting, staff listened to the tape of the meeting. Committee members were emailed a handout of the transcript of the motion from the tape and a copy of the motion from the minutes so committee members could compare. Mr. Torres indicated that the Department believes that the minutes accurately reflect the motion. There was no further discussion. Dr. Kuller then moved to accept the minutes of the February 8th meeting. Dr. Seiden seconded the motion. The motion passed unanimously.

Minutes of the November 2, 2010 Meeting

Dr. Kuller moved to accept the minutes of the meeting held November 2, 2010. Dr. Seiden seconded the motion and the motion passed unanimously.

2007 Nonformula Grant Presentations

Mr. Torres explained that the 2007 nonformula grantees were invited to provide an overview of their research projects to help inform decisions about future priorities. The five grants started in June 2008 and are approximately 2½ years into their 4-year projects. There are 3 projects which address the violence prevention priority and 2 projects which focus on the regenerative medicine priority. Each project's principal investigator was given a set of questions to cover. The project

descriptions and questions were emailed to committee members prior to the meeting. PowerPoint slides were used for the presentations.

Presentations and Discussion:

- Dr. Alan Flake from The Children's Hospital of Philadelphia (CHOP) stated that they are collaborating with Cheyney University on a project designed to develop prenatal stem cell therapy for sickle cell disease (SCD). The strategy is to give in utero transplants of bone marrow cells [in utero hematopoietic stem cell transplantation (IUHCT)], using the host's normal process of cell recognition to achieve tolerance to donor cells. This tolerance creates an identical twin donor. The strategy also includes non-myeloablative bone marrow transplantation after birth to enhance levels of chimerism to therapeutic levels. If successful, this therapy should avoid the toxic post natal therapy currently required for bone marrow transplants for SCD. In the aim 1, pre-clinical studies were done in a canine model to optimize the safety of the IUHCT followed by postnatal minimal conditioning bone marrow transplant [hematopoietic stem cell transplantation (HSCT)]. Seven of the 12 treated dogs were successfully boosted; chimerism was sustained as long as two years without degradation of the initial level of chimerism. However, the initial levels of chimerism were very low and not adequate for a clinical trial. They decided to conduct tracking studies to investigate the mode of transplantation and history of cell type changes. From these studies they found that the ideal time for IUHCT is 38-42 days and intracardiac injection was the most efficient mode of injection.

In aim 2a they found that co-transplantation of bone marrow derived mesenchymal progenitor cells did not improve engraftment. Preliminary studies in the mouse model in aim 2b found that bone marrow cells injected into the liver using pluronic gels (which solidify as they warm to body temperature) improved cell retention. For aim 2c, which is designed to investigate transcription and growth factors that increase the proliferative activity of stem cells, the testing methods have been developed and mice are being given injections of cells treated with small molecules. For aim 3a, 81 families of newborns with SCD have received education and counseling. For aim 3b (research training), each year 8 students have taken an 8-week laboratory methods course at CHOP. During 2010 three of the students who took the course were selected for summer internships at CHOP. A junior faculty member from Cheyney participated in a CHOP lab as part of his sabbatical.

Discussion: In response to a question from Dr. Seiden, Dr. Flake indicated that 25% of bone marrow chimerism would provide 100% correction of red cell compartment in humans with SCD. Achievement of 15-25% mixed chimerism would have a dramatic effect on the manifestation of the disease. Dr. Seiden also asked about the reactions of the 81 families to the possibility of in utero treatment. Dr. Flake indicated that the response has been favorable.

- Dr. Ken Zarat from the University of Pennsylvania explained that defects in beta (β) cell numbers and function underlie the progression of all forms of diabetes. Their research is designed to improve human islet cell growth *in vivo* and after transplantation. They achieved most of the milestones identified for the current period. Several of the hypotheses in the grant were not borne out, but they have new findings that are more significant than those proposed

in the grant. Three investigators on the project recently published a joint paper. State funding was used to obtain three grants from NIH.

Dr. Michael Rickels summarized progress on aim 1, a clinical trial to determine whether increasing effects of the hormone GLP-1 in persons with early type 2 diabetes for 6 months will sustain or increase β cell mass. GLP-1 increases insulin production and decreases β cell death. The hope is that these effects may augment β cell size and numbers. The trial is behind in recruitment (27 of 60 enrolled to date), and they are launching a website to improve recruitment.

Dr. Zarat summarized progress on aim 2, research to determine whether GLP-1 receptor agonists improve human islet β cell growth. Tacrolimus is used as an immunosuppressant for organ transplants. It has been shown in rodent studies that Tacrolimus inhibits calcineurin which impairs β cell replication but not survival. In this project they found that calcineurin inhibition by Tacrolimus resulted in human β cell death, but Exendin-4 ameliorated this effect by suppressing the amount of cell death in the human β cells in the islets. This was a major discovery -- finding out how to attenuate the effects of Tacrolimus in a transplant setting.

Research under aim 3 involved follow up of developmental biology studies that suggested Bone Morphogenetic Proteins (BMP) could promote proliferation of early β cells. Quantitative methods were used to analyze β cell turnover in humans and mice in response to BMP. These studies are underway.

The goal of aim 4 is to determine whether impairment of potential anti-proliferative genetic targets could be used to enhance human β -cell proliferation. During human gestation women are frequently prone to diabetes. The hypothesis is that if the genes that appear to affect growth are knocked out, it might suppress the effect of gestational diabetes. The initial gene chosen for study did not have that effect. However, subsequent research showed that the knockout of SOCS2 led to increases in β cell proliferation in pregnant mice.

The initial hypothesis for research undertaken in aim 5 is that proteins secreted by blood vessel cells will promote islet cell growth and function. Although the studies did not support the hypothesis, subsequent research has led to the investigation of new agonists and antagonists.

Discussion: In response to questions from Dr. Kuller about inclusion criteria for patients in the clinical trial, Dr. Rickels explained that patients have fasting glucose of between 110 and 160, and they meet criteria of oral glucose tolerance testing. Patients who take one or two oral medicines are allowed to go through a wash out period prior to determining their fasting glucose and oral glucose tolerance. The insulin secretion response is measured in response to an injection of arginine. Dr. Kuller indicated that the patients in the trial should have a fair amount of insulin secretion and asked how that relates to diabetics further along in their disease progression. Dr. Rickels replied that part of the purpose of the trial is to see whether treatment with the new agents early in the disease process can have a disease modifying effect.

- *Dr. Mark Greenberg from the Pennsylvania State University* stated that there were two aims to the PATHS to Success Project. The first aim is to implement an intervention to reduce violence in children who show high rates of aggression when they enter school. The intervention takes place in the Harrisburg School District. The second aim is to understand the factors that are related to violent and aggressive behaviors. The study compares children at high and low levels of aggression on executive cognitive functions of the frontal area of the brain, emotional regulation, and social and ecological factors. 200 high risk children are randomized into intervention and control groups. Another sample of 115 low-risk children was identified for the comparison of neurological development. 66% of the high risk sample are male and most are African American, Latino or from multiracial/ethnic groups. The children are not doing well academically and cognitively; 76% are rated as needing special services by their kindergarten teachers. They have a high rate of conduct disorders – they average in the 89th percentile nationally for conduct problems. Parents are under high conditions of stress -- 75% of families are single parent families and 65% of the families live below the U.S. poverty level. Many of the children experience great instability – 25% have lived in 4-12 homes, 31% have lived somewhere without a parent, 25% have witnessed violence and 66% have a biological parent who has been arrested. Mothers experience a great deal of stress – 53% meet criteria for depression and 28% are in a violent relationship.

The intervention model involves two components: (1) weekly friendship groups where the children come out of the class with non-aggressive children together to learn emotion regulation skills and (2) bi-weekly home visits by staff from Hempfield Behavioral Health, a non-profit counselling service. During the home visits parents and children are taught emotion regulation and literacy skills. The comparison group receives packets of information mailed to their homes. The intervention runs from January of kindergarten until December of first grade. The first cohort began in January of 2009 and completed the intervention this year. The second cohort began in January of 2010. Assessments include teacher ratings of behavior, cognitive and social cognitive assessments of children, ratings of peer relationships, school records, parent interviews and neurobiological assessments.

Preliminary intervention findings are available on the first cohort which completed post-assessment in May 2010. The statistical power is very low and the assessments are only based on teacher ratings. Intervention boys showed an improvement in school readiness, decreased rates of teacher-reported conduct problems, decreased rates of inattention, and decreased conflict with teachers.

For aim 2, the preliminary findings show dopaminergic systems deficits. Children with aggression don't distinguish well between success and failure; they can't seem to recognize errors.

With regard to the minority training effort, 50% of the undergraduates, a small percentage of masters students, about 25% of doctoral students and 1/3 of the post- doctoral students are minorities.

The project team has planned several publications and obtained a grant from the Pennsylvania Commission on Crime and Delinquency to do work similar to this in the Steelton School District.

Discussion: In response to questions from Dr. Seiden about blinding, Dr. Greenberg indicated that the testers in the van (neurobiological assessments) and at home are blinded. In each classroom 15% of the children are selected (e.g., ~4 children per classroom) and then the children in each classroom are randomized into intervention and control groups. Unless the children reveal the information about their group, the testers who take the children from the classroom for the assessment do not know whether the child is in the intervention or control group. Dr. Kuller asked when the problem of violence first starts, whether it is during pregnancy or some other time in the life of the children and whether information on pregnancy risks can be obtained. Dr. Greenberg indicated that self reports of pregnancy risks and drug abuse are not reliable. These are multigenerational problems and so the determination of when the problems begin is difficult. There is some genetic predisposition, but violence is increasing in the inner city and the cause for the increase is unlikely to be genetic. In this study they are collecting genetic information on the children, and they are assaying 40 candidate genes to determine if any genetic factors are associated with early onset violence. Dr. Seiden asked about the risk of contamination. Is it possible that the home visiting professionals are bringing additional social services to the home? Dr. Greenberg indicated that they are tracking social service usage. Approximately 90% of the parents agreed to allow access to Dauphin County social services records. Dr. Davis asked about the important points of intervention that would be required to obtain a significant positive outcome. Dr. Greenberg commented that it is important to start in the pre-natal period; many Pennsylvania communities now have nurse-mother partnerships, a very well validated violence prevention strategy. However, these impacts fade over time and it is important to provide a quality pre-school experience. It is clear that an intervention aimed at only one age group will not be sufficient. In response to a question about the future of this project in the Harrisburg School District, Dr. Greenberg stated that schools will not spend funds on this type of program because they do not view the prevention of violence as part of their academic mission. One broader strategy to address this problem would be to expand Medicaid so it covers these types of mental health services for more children.

- *Liana Soyfer from the University of Pennsylvania* stated that their project consists of mouse and human studies. The mouse studies will determine whether omega-3 can reduce aggression in mice that are socially and genetically at risk. In the human studies, they are investigating the risk factors for aggression and the genetic and neurological factors that protect at risk children from violence outcomes. They are conducting nutrition and cognitive behavioral interventions and will determine whether the combined effect of both interventions is better than the effect of either one intervention alone. They also will determine how the risk and protective factors affect response to the interventions.

In human studies, 11 and 12 year old children and their parents undergo initial assessments. Assessments in the children include IQ tests, functional and structural MRIs, psychological assessments, and assessment of blood, urine and saliva for pesticides and hormones. Children at risk for aggression are assigned to one of four groups (1) nutrition where they receive

vitamin supplements of omega-3 and calcium, (2) cognitive –behavioral intervention where children and their parents meet with a therapist once a week for 12 weeks, (3) both interventions and (4) usual care. Follow up assessments are conducted at 3, 6 and 12 months. Approximately 83% of the subjects are African American. Recruitment efforts include mailings to healthcare providers, flyers in public places, ads in newspapers, and information sent to charter schools and other schools. A total of 217 subjects have completed the initial assessment and 150 of these have been randomized to one of the 4 treatment groups.

Preliminary data from the mouse studies indicated that one mouse strain had a lower percentage of surviving pups when mothers were placed on high omega-3 diets whereas another strain had a higher percentage of surviving pups, which suggests an interaction between genetic and dietary factors.

In terms of the minority training, there are 11 undergraduates, 2 interns, 1 masters student, 5 pre-doctoral students and 1 post–doctoral student. 22 % of the students are African American.

- Dr. Rolf Loeber from the University of Pittsburgh explained that there were three components to the project: follow-up of subjects in the Pittsburgh Youth Study (PYS), evaluation of the SNAP early intervention and training of minority scholars.

The Pittsburgh Youth Study is a longitudinal study of boys begun in 1987. Three cohorts (1st graders, 4th graders and 7th graders) were assessed twice a year in the beginning of the study and then they switched to annual assessments. There are a total of 20 assessments for the youngest cohort and 16 assessments for the oldest cohort. Assessments were done with the boys, their parents and their teachers, and data were collected from institutional sources as well.

With grant funding the investigators are now following up the youngest and oldest cohorts in the PYS. Follow-up interviews have been completed with 65% of those eligible. The definition of moderate to serious violence is based on self reports complemented by official records and includes gang fighting, aggravated assault, robbery, rape and homicide. Preliminary data show that there are kids who stop being violent (“violent desisters”). There are also late onset violence cases which tend to occur in the worst neighborhoods. Violent persisters were higher in the African American population, but race does not explain the difference. It is clearly due to the overabundance of risk factors to which this population is exposed. The follow-up study also includes collection and analysis of genetic material. The results of the genetic analysis are modest. There was some promise, but it has not really materialized. The follow-up study also includes a comparison of fMRI in the very violent individuals from the PYS and controls. The results of an emotional processing task show that psychopathy is related to persisting violence. However, psychopathy is not necessarily always an accompaniment of violence or homicide. There are many violent individuals who are not psychopaths. A novel finding was that both the violent desisters and violent persisters showed less right amygdala activation to neutral faces than non-violent men.

The second component of the project involves an evaluation of the SNAP intervention on conduct disorder boys under age 12. A total of 240 participants of the anticipated 252 have been enrolled. One of the problems is that the youths in the comparison group did not use the services that were recommended. Parents are not following through with the efforts to get youth needed services.

Discussion: In response to questions from Dr. Seiden about the importance of genomics, Dr. Loeber commented that genetics are important for studying gene-environment interactions. Because the number of cases in the studies is small, genome wide association studies are not feasible, and they are focusing their work instead on specific candidate genes. Dr. Davis asked from a public policy perspective realizing that we have limited resources, whether there is one intervention that would have an impact. Dr. Loeber responded that the question defies a simply answer. It is known that there are effective interventions at different age periods. It makes sense to intervene early in pre-school, elementary and adolescent periods. But is it also known that it is never too late to intervene. There are very effective interventions with known delinquents. However, the degree of victimization is much higher for interventions at the later stages. Also, at this stage, delinquents lack social skills and need a lot of training to become productive citizens.

Lunch Break

Mr. Torres announced that Mr. Huff joined the meeting and that the committee would suspend business so members could break for lunch.

Review of Committee Actions and Recommendations Regarding the Priorities Prior to the December 8th Meeting

Mr. Huff summarized the actions the committee had taken thus far with respect to establishing the research priorities. On November 2, 2010 the committee voted that the research priority for the formula funds for next year should remain the same as in prior years.

On February 8, 2010 the committee recommended that half of the nonformula funds be allocated to companies for research on the development of drugs, vaccines, diagnostics, devices, and health informatics.

On November 2, 2010 the committee heard a workshop featuring experts on commercialization and testimony concerning possible research priorities for the other half of the nonformula funds. At that meeting the Department's Chief Legal Counsel, Chris Dutton, explained that applicants cannot be limited to companies. The RFA must and should be open to all entities, according to Act 77.

The committee discussed collaboration, and it was recommended that collaboration not be a requirement of the commercialization priority but remain in place for other priorities. The committee also recommended that the focus of the commercialization priority be narrowed and suggested limiting it to cancer diagnostics and/or cancer therapeutics depending on the number of companies that might be able to conduct research on either of these areas. At the request of

the Department, Dr. Mel Billingsley of the Life Science Greenhouses of Central Pennsylvania surveyed the life science greenhouses to identify the names of companies involved in cancer diagnostics, cancer therapeutics and neurosensory diagnostics. This information was emailed to the committee prior to the December 8, 2010 meeting.

During the November 2, 2010 meeting Dr. Parmacek asked whether companies with corporate headquarters located outside the state could receive funding if they have discovery centers in Pennsylvania. Act 77 requires that applicants be located in the Commonwealth and the Department verifies this by checking the status of applicants with the Pennsylvania Department of State's corporation database. The RFA contains language specifying this requirement and this information was emailed to the committee prior to the December 8, 2010 meeting.

Next, the committee discussed the possible research priorities for the other half of the nonformula funds. Interest was expressed in diabetes but it was recommended that this issue be considered in the following year after a workshop on the topic is presented to the committee. Research to evaluate the impact of genomics medicine on disease prevention and treatment emerged as the other possible priority for next year. Katrina Armstrong, who presented testimony on this issue at the November 2, 2010 meeting, agreed to draft a white paper for consideration by the committee at December 8, 2010 meeting. Dr. Levine also provided input on the white paper, which was emailed to committee members prior to the December 8, 2010 meeting.

Discussion of the Commercialization Priority

Mr. Huff asked for comments on the draft priority and posed the following questions for the committee's deliberations: Should the focus of this priority be narrowed to cancer diagnostics or cancer therapeutics or include both areas? Are there types of research that should be excluded? Are there examples of the types of research that are of particular interest and that should be included?

Dr. Seiden commented that it is challenging to separate cancer diagnostics from cancer therapeutics because there is a moderate amount of overlap between the fields. A lot of trials on cancer therapeutics have diagnostics included as well. Some granting agencies, such as the Army, will allow research right up to human trials but will not allow research involving human trials. These funds are intended to improve health, and at some point human trials will be needed to reach this goal. He added that we might want to encourage small companies to apply. Dr. Seiden concluded that he would support including both cancer diagnostics and therapeutics.

Dr. Kuller asked whether the priority should include Phase I, II and III studies. Phase I studies include the development of technology and testing its safety in animals. Phase II are small human trials. Phase III are large clinical trials, and might be precluded because of their expense and length.

Dr. Seiden commented that there was a proposal for grants in the \$750,000 range. In general large pharmaceutical companies likely would not apply for funding because of the limited amount of money and funding requirements. It is likely that clinical and translational researchers

and small undercapitalized biotechnology companies would apply and the proposed research likely would involve pre-clinical, pre-IND and biomarker studies.

Dr. Davis raised questions about funding clinic trials for established products and the potential cost and difficulty of expert review for both cancer diagnostics and therapeutics. Dr. Parmacek expressed concern about the breadth of the priority. Mr. Huff commented that the priority can be narrowed in any way and the broader the priority, the higher the cost of review. Dr. Seiden suggested that the priority could be limited to cancer diagnostics and therapeutic agents that are FDA approved or conversely to diagnostics and therapeutics that are not FDA approved.

Dr. Kuller expressed concern that if the priority was too narrow, the Department may not receive enough good proposals. He voiced a concern that if the priority is aimed at companies, it may not be successful, that the response may be mostly from universities and cancer centers. Dr. Seiden suggested that company participation could be required in a similar manner to NIH's SBIR or STTR granting mechanisms, which involve partnership applications between academic institutions and companies. Dr. Kuller recommended that the priority encourage collaboration between companies and academic institutions but not require such collaboration.

Mr. Huff summarized the discussion stating that it appeared that there was support for including cancer diagnostics and therapeutics and adding language to encourage collaboration. Dr. Davis responded that he was still concerned about the breadth of the peer review. Dr. Potrzebowski indicated that the Department was very concerned about this issue when the priority was much broader, commercialization not restricted to cancer diagnostics and therapeutics, and the Department had developed contingency plans on how peer reviewers can triage those applications. Drs. Staiano-Coico and Parmacek agreed with the consensus of the group. Ms. Becker commented that the committee can define specific areas of research that should not be considered, as was done in the past with other priorities.

Dr. Kuller recommended that the priority exclude research on cancer diagnostics and therapeutic agents that are currently approved by the FDA for commercial use. The purpose is not to test whether one currently approved diagnostic test is better than another currently approved test.

Discussion of the Translational Genomics Priority

Mr. Huff asked the committee to consider these questions in their discussion of the translational genomics priority: Are there types of research that should be excluded? Are there examples of the types of research that are of particular interest and that should be included?

Dr. Kuller asked whether the focus should be on the application of genomics to diseases that have a major genetic component rather than on the use of the Genomic Wide Association Studies (GWAS) or similar techniques to develop risk scores to give to physicians. There is good evidence for genetic testing in major genomic disorders and in which there is underutilization of the genetic testing, e.g., BRAC 1 or 2 or genetic techniques for finding people with familial hyperlipidemia who have a premature coronary disease. There are a lot people dying in their 40's and 50s of heart disease; they have family history of heart disease, but are not receiving the genetic testing and therapies that exist and would save their lives. There are people who are

diagnosed with colon cancer at a young age and who have never received existing genetic testing and proper therapies. It is not useful to take 40+ different SNPs and develop a risk model that predicts a 2 fold increase in risk. The focus should be on major genomic disorders for which we can enhance the utilization of genetic testing. There are patients with hyperlipidemia and family history of heart disease who have never received genetic testing. The challenge is how to get practitioners in well defined health systems to conduct genetic testing for major genomic disorders.

Dr. Parmacek expressed concern about limiting the priority to the concept of major loci with heritable disease. He stated that the white paper was generally written to exclude the application of GWAS to identify risk profiles. If the priority were limited to major genomic disorders, it might exclude findings in pharmacogenomics, for example, where there are loci that predict response to Coumadin and loading dosages. Dr. Kuller responded that he was not opposed to this type of research, but was concerned that there was nothing in the white paper that would preclude taking data from GWAS on myocardial infarction and applying it in a population, which is not likely to work and that is not what we want.

Drs. Seiden, Parmacek, Davis and Staiano-Coico agreed that the white paper was well written. Mr. Huff called for a motion that the Department select cancer diagnostics and/or cancer therapeutics as the research priority for half of the nonformula funds and translational genomics as the research priority for the other half of the nonformula funds for 2011-12 with the understanding that the Department will draft the language of the priorities and submit it to the committee for their final review and comment. Dr. Staiano-Coico made the motion, Dr. Seiden seconded the motion and it passed unanimously.

Combining the Categories of Nonformula Funds

Mr. Huff explained that there was a final issue that needed to be discussed, which was the issue of combining or keeping separate the two categories of nonformula funds. The Tobacco Settlement Act allows funding for only three types of research: biomedical, clinical and health services research. The Act further divides the nonformula funds into two funding categories. Half of the nonformula funds must be spent on health services and clinical research. The other half of nonformula funds must be spent on the other research category, which includes biomedical, clinical and health services research.

In the past these two categories of funding were combined. However, when the categories were combined, it meant that every grant must spend at least half of their funds for clinical and/or health services research in order to be certain that at least half of the nonformula funds was spent on clinical and health services research as required by the Act.

This year the Department recommended that the categories not be combined, that the other research category be used to fund the commercialization priority and the health services and clinical research category be used to fund the translational genomics priority. This would allow maximum flexibility for commercialization projects. Commercialization projects may need to spend all of their funds on biomedical research and may not be able to spend any funds on clinical or health services research. If the categories were combined, commercialization projects

would be required to spend at least 50% of their funds on clinical and/or health services research which might then eliminate projects focused primarily on biomedical research. The focus of the translational genomics priority is on evaluating the utility of genomics diagnostics and treatment and therefore would be clinical and/or health services research.

Dr. Seiden commented that he strongly supported separating the funds and moved that they be kept separate. Dr. Staiano-Coico seconded the motion, which passed unanimously.

Next Meeting

Mr. Huff stated that staff would check on committee member availability in the spring for two meetings of the committee to be held in the fall. The plan was to hold the first meeting as a one-day meeting featuring testimony, a workshop on diabetes and preliminary discussion on possible research priorities. The 2008 nonformula grantees would be invited to present on their autism and antibiotic resistance grants at the second meeting, when the committee would be expected to finalize its recommendations on the 2012-13 research priorities.

Dr. Seiden asked whether or not the committee could hear about the final progress on the grants. Dr. Kuller commented that the final reports are on line. He requested that time be allotted during the first meeting for a discussion of final progress reports from the recently completed nonformula grants. Mr. Huff requested that the final progress reports be sent to members in advance of the meeting.

Mr. Huff stated that both Ms. Becker and Dr. Potrzebowski would be retiring in January with 70 years of service between them, and that Diane Kirsch will be taking Ms. Becker's position as program manager.

Adjournment

The meeting adjourned at 1:30 p.m.