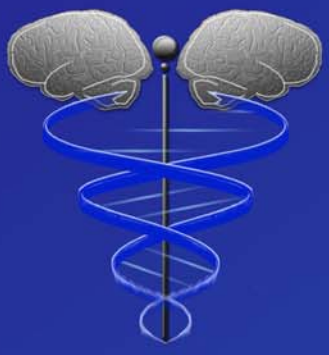

NIMH

National Institute of Mental Health
Intramural Research Program (IRP)

Blue Ribbon Panel

June 6, 2008

Final Report

National Institute of Mental Health Intramural Research Program Blue Ribbon Panel Recommendations:

Something Special

The National Institute of Mental Health (NIMH), at the request of National Institutes of Health Director, Elias Zerhouni, M.D., convened a Blue Ribbon Panel (BRP) of distinguished experts on January 7-8, 2008 to review the general organization, operation, and administration of the Intramural Research Program (IRP) at NIMH. The Panel was co-chaired by Solomon H. Snyder, M.D., Department of Neuroscience, The Johns Hopkins School of Medicine and Carol Tamminga, M.D., Department of Psychiatry, University of Texas Southwestern Medical Center. (See Appendix A for Panel Roster.) The Panel met formally with NIMH administrators Thomas Insel, M.D., NIMH Institute Director, Richard Nakamura, Ph.D., Deputy Director and Acting Scientific Director, and Susan Koester, Ph.D., Deputy Director, Division of Neuroscience and Basic Behavioral, along with Elias Zerhouni, M.D and Michael Gottesman M.D., Deputy Director for Intramural Research. In addition, the Panel heard from four NIMH IRP tenured scientists. (See Appendix B for Agenda for January 7-8 meeting.)

The Panel was charged by Dr. Zerhouni to consider the following points during the deliberation:

- NIMH needs to recruit a new Scientific Director (SD) for IRP. BRP should identify characteristics to seek in a SD.
- Innovation and nimble adaptability are essential for qualities for research programs to excel. How can NIMH IRP become more innovative and adaptable?
- NIMH IRP has many new research programs, in part in response to the suggestions from the previous BRP report in 1997. Are the current programs effective? How could they be improved?
- What is the appropriate balance between related programs at other NIH IRPs and that within NIMH's IRP? Is anything underrepresented or overrepresented in NIMH's IRP?
- NIH seeks ways in which to strengthen collaborative efforts between IRP scientists and extramural researchers. Clinical research in particular seems well suited for such collaborations because the activation energy for establishing research programs is lower at NIH's new Clinical Center than at many extramural sites.

The BRP hopes that the recommendations provided below will help to strengthen the NIMH IRP. Moreover, many of these recommendations may serve as models to help transform and invigorate other Intramural Research Programs within NIH.

Highlights of the NIMH Response to the 1997 BRP Recommendations for Improving the IRP:

The 1997 BRP Report, "Finding the Balance", offered several dozen recommendations for ways in which NIMH IRP could be improved. The current BRP commends the NIMH leaders for the many laudable changes they have implemented in the past decade, largely in response to the 1997 Report. The most notable ones include the following:

- NIMH significantly enhanced clinical and translational research in the IRP by recruiting a cadre of experienced and talented physician-scientists. Most notably, they created the Mood and Anxiety Disorders Program. Launched in 2000 with the hiring of half a dozen senior psychiatric researchers, this program is now nationally recognized for its preclinical and translational research leading to the development of new treatments (1).

- Also in 2000, NIMH substantially enhanced the brain imaging and nuclear medicine components of the IRP by creating the Molecular Imaging Branch and recruiting three senior investigators to serve as the nucleus of the unit. This program now has gained international renown for the development and application of new radioligands for use in real-time imaging studies of brain function that are both clinical and basic in nature (2).
- The NIMH leadership strengthened its enforcement of a policy in which IRP reduces or eliminates research support for investigators, including tenured ones, whose work receives a sub-par evaluation from its Board of Scientific Counselors (BSC). These efforts have contributed to a decrease in the number of tenured IRP investigators from 59 in 1997 to 37 in 2007. This strategy is also helping to diminish overly centralized large research groups which impacts the opportunities for both the hiring and advancement of young researchers.
- With the completion of Phase I development of the Porter Neuroscience Center, NIMH recruited several strong junior faculty, mainly in 2006, to occupy that new facility. All these young researchers have demonstrated commitment to translational as well as basic science along with an eagerness to collaborate with the other neuroscientists in the Center.
- As a demonstration of its capacity to take a central role in responding to new and emerging mental health needs in the US, in 2006, the NIMH IRP responded to the reported increase in autism by launching a major effort to understand and better deal with the condition (3). The program started by establishing three clinical studies aimed at defining the characteristics of autism subtypes and at defining new and better treatments that can be tailored to clinical needs.
- The Board of Scientific Counselors played an active and important role in facilitating these advances by acting as a 'guardian of quality' for individual researchers as well as for new programs. The BRP feels that the BSC of NIMH is one of the finest, if not the very best, among NIH institutes and so should be strongly supported in its efforts.

Some Recent Contributions of NIMH IRP Investigators to Mental Health Research:

The BRP applauds the numerous vital contributions that NIMH IRP investigators are making to mental health. The IRP emphasis on translational research and focus on high risk-high yield projects helps to accomplish their goal of innovation. A few noteworthy bodies of work include:

- The 2007 report showing that attention deficit hyperactivity disorder (ADHD) is characterized by a delay in development of critical brain regions, which ultimately follow a normal pattern (4)
- The pioneering of "imaging genomics", which brings together in vivo brain imaging and family genetic studies, including twin studies, to elucidate patterns of normal and abnormal brain function and their genetic determinants (5)
- The interdisciplinary research that links depressed affect to a specific brain region (area 25) and a specific regulator of brain chemistry (the serotonin transporter) (6)
- The validation of the rapid antidepressant effects of the anesthetic ketamine in humans, supporting the development of NMDA glutamate receptor antagonists as a novel treatment for depression (7)
- The refinement of BOLD (blood oxygen level detection) functional magnetic resonance imaging (fMRI), which enhances both spatial and temporal resolution of fMRIs (8), and the application of BOLD fMRI in studies such as those on adolescent mental disorders (9)

The Next Decade at the NIMH IRP - Its Role in Mental Health Research and Its Place in Neuroscience Among NIH IRPs:

In his vision for NIMH as a whole, Director Thomas Insel stated, "the field [of mental health research] has gone through two tectonic shifts recently". Basic neuroscience has shifted beyond strict reductionism into a "systems" era in which researchers are learning how to describe, understand, and

intelligently manipulate neural pathways and networks. At the same time, psychiatry has moved from focusing on metapsychology and psychoanalysis to placing greater emphasis on biology. A further shift, now underway, stresses the genetic basis of individual vulnerability to mental illness. Given the tools available, it should be possible within the foreseeable future to elucidate the genetic variations that predispose certain individuals to schizophrenia, bipolar disorder, autism and anxiety disorders, and to define the developmental changes within neural pathways and circuits that are associated with such pathologies.

A great deal of mental health research currently aims to translate observations about normal and pathological human brain function and behavior into appropriate laboratory models. NIMH IRP has already demonstrated that it is well suited to lead the way in identifying disease candidate genes and then developing experimental systems in which to study their roles in normal and pathological brain function (10). The intramural program is also well suited for homing in on candidate genes that are critical for various aspects of brain development through the use of in vivo brain imaging in clinical genetic studies (11). On the other hand, as Insel explained, certain types of studies, including genetic association studies requiring tens of thousands of subjects may best be executed through extramural programs rather than in the IRP. In its deliberation to develop recommendations for the future of the NIMH IRP, the BRP tried to keep such relative strengths and limitations in mind.

The BRP expressed strong support for Insel and what he has accomplished at NIMH IRP. Clinical and translational research in general and brain imaging research in particular - both at the clinical and basic levels - have developed considerable strength in the current NIMH IRP. By contrast, it was the general consensus among BRP members that basic cell and molecular neuroscience in the IRP is weaker and needs to be augmented within the NIMH IRP.

Perhaps the greatest single impediment to the further development of an outstanding IRP at NIMH has been the lack of a Scientific Director (SD) for much of the past decade. For that reason, shortly after the January meeting terminated, the BRP communicated informally to Dr. Insel its recommendation that a search for a new SD commence promptly.

The Blue Ribbon Panel's Recommendations for the NIMH IRP:

The BRP proposes that the only rationale for the existence of intramural NIH research programs, including NIMH, lies in IRP conducting research that is not feasible in the extramural world, nimbly and using innovative, often expensive, methodologies. In the early days of the modern NIH, the scientific excellence of IRP tended to exceed that of even the best universities, which, of itself, represented something unique. Seymour Kety, the first Scientific Director of both NIMH and NINDB (now NINDS) provides an outstanding early example, having made two pioneering scientific contributions (12). First, he devised a method for measuring cerebral blood flow and brain glucose metabolism, which laid the foundation for quantitative and qualitative neuroimaging of living animals including humans. Second, Kety gathered the first evidence for a genetic basis of schizophrenia, setting in motion a much broader program on the genetics of normal and abnormal behaviors. Julius Axelrod characterized catecholamine disposition, discovered norepinephrine reuptake as a mechanism of synaptic inactivation, and showed that antidepressants act by blocking such uptake(13). Louis Sokoloff developed the 2-deoxyglucose technique for evaluating cerebral metabolism leading to metabolic studies in humans by PET scanning (14).

In the succeeding decades, biomedical science in universities has escalated in excellence, with a significant contribution to that development coming from creative IRP-trained physician-scientists, especially during the Vietnam War. During that time, notable accomplishments have emerged from the

NIMH IRP, and are still ongoing. Such programs span the gamut from basic chemistry and physics leading to the development and use of new radioligands for in vivo imaging of a host of brain chemicals, to clinical research such as longitudinal studies of brain development in human and nonhuman primates, establishing essential baseline data about normal brain development and starting to uncover anatomical, physiological and biochemical correlates of various mental illnesses, Nonetheless, the BRP felt IRP has not realized its full potential, and that changes recommended by the BRP may enable NIMH to accomplish important objectives not feasible in extramural settings.

Rationales offered for the existence of NIMH IRP include the following:

- The protected environment of IRP permits scientists to pursue high risk-high yield research.
- The potential for large focused expenditures enables IRP to develop national resources such as powerful imaging facilities. Having in their domain a great deal of cutting-edge research equipment makes IRP scientists valuable collaborators for extramural investigators needing access to such equipment. While several such collaborations have and still do take place and include not just investigators from within the US but also from around the world, they are few in number relative to actual potential.
- A focused federal research agency may be better equipped than the extramural program to mount rapid responses to national emergencies such as a reported rise in incidences of autism and post-traumatic stress disorder.
- IRP may afford unique opportunities for various forms of research training.

Limitations in accomplishing these objectives stem in part from the intrinsic handicaps of a federal agency. There is also a need for stable intramural leadership. Our recommendations attempt to address these problems. We anticipate that many problems of NIMH IRP are shared to a greater or lesser extent with other institutes. Accordingly, we recommend that NIMH IRP executives work with other institutes, particularly those relevant to neuroscience, to coordinate directives that will advance IRP function across the NIH.

Recommendations:

1. Appoint a Scientific Director (SD) of World-Class Stature as a Scientist and Administrator:

With the exception of the years 1998-2004, NIMH IRP has lacked sustained scientific leadership for extended periods during most of the past two decades. As in any institution, NIMH IRP requires a strong leader with vision, interpersonal skills, and administrative wisdom to implement his/her vision. Because of the complex federal bureaucracy, some sources have recommended that SD be a professional administrator. We judge that the principal role of SD is to develop innovative scientific directions and to recruit the most talented scientists possible. These activities demand an individual of scientific stature who can command respect among the finest researchers and lead by example. Because a major portion of NIMH IRP is devoted to clinical research, an optimal SD might be a physician-psychiatrist with a stellar research background, though a talented Ph.D. could do as well. An investigator with bioinformatic expertise in developing, managing, mining and exploiting large scale databases relevant to mental illness could be considered given the increasing reliance upon these sources of information for both at risk populations and hypothesis generation. Ideally, SD should be an individual who is still personally active in research. However, it is possible that a capable individual who appreciates all the principal research domains and displays creative yet rigorous vision, but who no longer gives top priority to his/her own research program would be suitable. Most importantly, SD should possess the generative skills to nurture young IRP scientists and the maturity not to compete with them. Whether the new SD should be recruited from outside or inside NIMH IRP is not critical because each choice has

merit; an extramural candidate may bring fresh ideas and new perspectives while an intramural investigator would be familiar with the nuances of working in a federal government agency.

Recruiting new scientists is another crucial task, a process in which there is no substitute for making scientific excellence, "the best of the best," a prime criterion. We recommend that SD primarily recruit in areas of relevance to the NIMH mission of mental health and neuroscience. This criterion stems from the BRP's judgement that coordination of IRP scientists is of greater importance than in the extramural community. Thus, laboratory science is often dominant in many universities, whereas the IRP affords an opportunity to develop teams that seamlessly traverse molecular, systems and cognitive neuroscience and link them to clinical investigations. The Porter Neuroscience Research Center offers one such model of a cross-disciplinary environment in which neuroscience laboratory research can succeed in the IRP. In addition, various special programs such as the well established Mood and Anxiety Disorder Program in the IRP already demonstrate significant translation across levels of analysis and across disciplines. The new SD should continue this trend towards collaborative innovation.

2. Initiate the SD Search Process Now:

Given the time required to constitute a search committee, we would urge that NIMH initiate the formal search for SD as soon as possible.

3. NIMH IRP as an Incubator:

Some aspects of the intrinsic structure of a federal agency impede turnover and foster the retention of less productive scientists. The current state of IRP science is regarded as weaker than the research at the top extramural institutions, especially in the basic laboratory sciences. This reputation may lag behind reality at the NIMH IRP, based on an analysis of citations, rates of faculty turnover, and quality of recent faculty recruits. But the misperception that the IRP remains scientifically weak impedes recruitment. Moreover, the resurgent European and Asian universities compete for outstanding scientific talent. Young scientists find attractive those institutions in which their professional advancement can be enhanced by an environment of world-class colleagues. The incubator program we propose aims to address the twin problems of a need for turnover and the need to recruit the best scientists.

Specifically, we propose that recruits be appointed for defined periods, perhaps five-seven years with a possibility of reappointment. However the great majority of recruits should leave IRP for the extramural community after the initial term of appointment. Among basic scientists, a single term of appointment should be the rule rather than the exception. For clinical investigators whose projects are often relatively long-term, reappointment might be more frequent. One of the attractions of IRP is the guarantee of an abundance of "hard" money support for research without the need to constantly write grant applications, teach courses and sit on committees. For clinical research recruits, the Clinical Center and the special NIMH patient populations represent unique resources.

Additionally, we recommend a "reverse" dowry. Presently, IRP scientists are often reluctant to seek university positions, and universities may be reluctant to recruit them for the following reason: Skills in raising funds through grant writing and other mechanisms are paramount in the extramural world. After a decade or more in IRP, scientists would be seeking relatively senior positions in universities that require substantial grant funding. While senior in the scientific sense, IRP investigators often are novices in this entrepreneurial venue. Accordingly, we propose a program whereby IRP scientists moving to universities may receive a substantial reverse dowry, perhaps $500,000/year for four years with a strong commitment by the scientist to apply for extramural support during that time. The level of support may differ depending upon the experience and time spent in the IRP by the scientist.

Mechanisms to implement this program already exist. For instance, during the period of reverse dowry, the investigator might still be designated an intramural scientist but on leave to the university. When combined with the otherwise attractive components of an IRP recruitment package, the reverse dowry ought to make NIMH IRP competitive with the best universities in the country. We feel that this program may be of interest to other NIH institutes.

The incubator concept can apply not just to young scientists but also to science, specifically to high-risk research programs that require an extended period of sheltered support in order to thrive. Whereas hiring decisions in the extramural community tend to factor in the potential fundability of the candidate's research plan, the IRP, as an incubator, need not be so risk-averse or discouraging of descriptive research when the outcomes could substantially benefit the field of mental health. The early work on brain imaging in vivo, rendering it high-resolution and quantitative, exemplifies such a high-risk/enormous pay-off project at NIMH IRP. Similarly, work to amass data on normal brain development during childhood, while not the hypothesis driven research that is favored in extramural settings, has provided a detailed picture of structural developmental changes in normal children. Accordingly, the BRP endorses the current approach to launching novel programs that may require major investment that is more feasible in IRP than universities.

4. Exit Strategy Facilitated by a Reverse Dowry:

Rejuvenation of IRP scientific excellence is critically dependent upon recruitment of new outstanding scientists. In an era of relatively static resources, recruitment will not be feasible without turnover of existing personnel. The BRP judged that, on balance, clinical research at IRP is strong and well focused on the most important targets of the NIMH mission. By contrast, we found substantial weaknesses in the cellular/molecular neuroscience components of IRP. Additionally, some of the research was not well linked to the NIMH mission and only peripherally related to any aspect of mental health. Since the last Blue Ribbon Panel about a decade ago, there has been turnover of some of the weakest IRP scientists through denial of tenure for young investigators and through termination of support for senior scientists. However, a substantial number of scientists with tepid reviews by the Board of Scientific Counselors remain. To facilitate new recruitment and to enhance the overall scientific excellence of IRP, we recommend efforts to augment turnover of such relatively weak scientists. Because most of these individuals have been in IRP for over a decade, they would not fare well in the academic job market and are themselves often fearful of the "outside world."

Because of all these considerations, we propose that the reverse dowry, described above for new recruits, be applied for some currently tenured researchers as well, to enable long-term IRP investigators to compete for academic positions. The amounts and duration for such support might be similar to levels described above in packages for new recruits. For senior IRP investigators, larger amounts and longer durations might be required to facilitate their transition to the university community. The reverse dowry would be an adjunct to existing mechanisms for poorly rated investigators such as decreasing funding, assignment to administrative activities and even closing labs.

We recognize that some IRP investigators who are no longer highly productive may be better suited for other roles, most notably administrative or teaching ones. In many universities such senior scientists are offered some formal training and support to help make such transitions. The BRP recommends that IRP become similarly aggressive to assist these individuals to make successful mid-career course changes.

As with the use of reverse dowries for new recruits, we suspect that these mechanisms for enhancing turnover of long-term IRP scientists may be applicable to other NIH institutes.

5. Structure and Linkage of IRP Basic and Clinical Neuroscience - Importance of Investigator Independence:

IRP laboratories are currently structured in several different ways. The basic molecular/cellular neuroscience laboratories are relatively small with independent research programs that often are unrelated to each other or to the clinical enterprise. The cognitive neuroscience research activities are more coherent and do provide some conceptual support for clinical efforts. For instance, elucidation of circuits that link cognitive and affective behavior helps explain schizophrenic disorders of thinking and feeling. Clinical efforts are organized in two large programs that include basic as well as clinical research. The Genes, Cognition and Psychosis (GCAP) program has a top-down tightly coordinated structure (15). By contrast, the Mood and Anxiety Program (MAP) comprises a grouping of relatively independent laboratories that have fairly close coordination with a focus on common goals (16). Depending on the personalities of the individuals involved, different structures may each afford unique benefits. However, many decades of experience both in universities and in NIH IRP strongly support the notion that scientists are most successful when provided a broad freedom of inquiry. For basic research, relatively small laboratories, generally not exceeding 15 individuals, are optimal for creative advances. Somewhat larger structures may be needed for clinical investigation, but collaboration of independent/semi-independent teams is generally better than large groups with a single leader.

The BRP proposes that basic and clinical groups in NIMH IRP be linked more closely than is generally the case in universities. Linking basic and clinical teams of investigators may facilitate the translational goals of understanding disease mechanisms and developing novel therapies.

Since basic neuroscience is conducted in multiple NIH institutes, it has been suggested that NIMH IRP need not support basic neuroscience, instead deriving its conceptual basis from work at other NIH institutes. While interactions between institutes are valuable, we advocate that NIMH IRP maintain its own strong basic science operation. The ability to translate fundamental studies directly to mental illnesses and to carry out "reverse translation" are functions greatly advantaged by an intra-institute relationship between laboratories.

In terms of new scientific directions, we recommend attention to developmental neuroscience. This recommendation is based on an increasing realization that major mental illnesses have strong developmental components. A full understanding of interactions between developmental trajectories and environmental risk factors requires this focus. Additionally, molecular/cellular neuroscience, which is emerging as one of the most exciting fields of biomedical research, requires interdisciplinary, multidimensional analytic approaches from genetics to signaling to brain imaging. Opportunities to translate these new findings and insights regarding molecular and cellular mechanisms of brain function into an understanding of mental illnesses and treatment of it should be maximized.

Our recommendations are predicated on the demonstrated clinical relevance of basic neuroscience research. Therapeutic benefits deriving from such research include the following: Fundamental studies of subtypes of metabotropic glutamate receptors led to the development of mGluR2/3 agonists (17), which have displayed impressive efficacy in Phase II clinical trials in schizophrenia (18). Basic research into subtypes of muscarinic cholinergic receptors has resulted in promising clinical actions of desmethyl clozapine, which may afford clinical benefit in schizophrenia with diminished side effects (19). An emphasis on translating such fundamental discoveries to novel clinical therapeutics across mental health diseases should be feasible within the IRP.

6. The Need for Additional Laboratory Research Space:

Due to budgetary constraints, Phase II in the development of the Porter Neuroscience Research Center has been on hold, which has meant that the total wet lab space available to NIMH is less than it was 10 years ago. Clearly, NIMH IRP will require greater lab space to achieve the goals we have proposed. Therefore, the completion of the Center, which already promotes the collaboration across institutes and links to the clinical research mission, will be critical to provide the space and resources for a new cadre of interacting, discovery-oriented scientists.

7. The Fluidity of IRP Funding - Discretionary Funds:

The NIMH SD possesses substantial authority in allocating funds, with concurrence of the NIMH Director. While some NIMH IRP scientists entrepreneurially lobby with SD for increased funding and new programs, funding is generally a top-down enterprise. By contrast, in universities each faculty member, even the most junior assistant professor, is an independent entrepreneur when it comes to raising funds from NIH and elsewhere. We propose that NIMH IRP develop mechanisms to facilitate such activities. A substantial "pot" of discretionary funds would enable IRP to be more nimble in addressing new challenges. We understand that SD presently has available some amount of discretionary funds. We recommend a larger pool of such funds for which individual IRP investigators, including the most junior, could apply. We do not favor the cumbersome application process of the present extramural program. Instead, proposals could be brief, perhaps 2-5 pages. An independent committee of disinterested IRP scientists (with extramural consultants as needed) would judge and award the "grants" and subsequently assess the productivity and relevance of outcomes to NIMH IRP mission.

In terms of efficient utilization of funds, BRP was concerned that expenditures are not as critically examined as they are in the extramural community, where individual PIs exercise more detailed oversight. One example lies in those IRP cores for which individual labs are not charged for usage. Accordingly, a scientist may order 10 different knockout mice, because "it's free," whereas the scientific goals could be attained with two knockouts. If funds for the cores were incorporated into lab budgets, PIs would be less careless in their ordering habits.

8. BRP Recommendations and NIMH Strategic Plan:

Achieving the ambitious but compelling mental health objectives set out in the NIMH Strategic Plan (2007 draft) will require substantive evolution of both organizational structure and research talent within the NIMH IRP. Future recruits to the IRP should be driven by their contribution to achieving the objectives set forth in the Strategic Plan with particular focus on genetics, epigenetics, bioinformatics, developmental neurobiology, biomarker development and therapeutic development. While the BRP realizes that course setting is an iterative and ongoing process, in our best judgement, implementation of BRP recommendations is an integral and necessary step towards achieving the goals and objectives of the NIMH Strategic Plan.

Conclusion:

Through its research programs on the mind, brain, and behavior, NIMH aims to reduce the burden of mental illness. NIMH's Intramural Research Program sits poised to be the hub of these endeavors, given the strength and scope of IRP's current research efforts and the opportunity that IRP has to make tactical programmatic changes in response to BRP's recommendation. In making the recommended changes, we believe IRP should become the magnet research center for outstanding young investigators to begin innovative studies into causes and treatments of mental illness. Because the recommended new program would have most of these researchers leaving the Bethesda campus after a defined number of years, IRP would become the pre-eminent source of creative and well-trained mental health researchers for seeding

new basic, translational, and clinical research programs in academic medical centers throughout the country. In that way, NIMH's IRP would truly become something special.

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(13) Julius Axelrod Lecture for 1970 Nobel Prize in Physiology or Medicine (http://nobelprize.org/nobel_prizes/medicine/laureates/1970/axelrod-lecture.html)

(14) 1981 Albert Lasker Award for Clinical Medical Research - to Louis Sokoloff (http://www.laskerfoundation.org/awards/1981_c_description.htm)

(15) Clinical Brain Disorder Branch, the principle research laboratory in the Genes, Cognition, and Psychosis Program of the DIRP at NIMH (http://cbdb.nimh.nih.gov/)

(16) NIMH Mood & Anxiety Disorders Program (http://intramural.nimh.nih.gov/mood/)

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APPENDIX A

NIMH DIRP Blue Ribbon Panel Members
January 2008

CO-CHAIRS

Solomon H. Snyder, M.D.
Department of Neuroscience,
Johns Hopkins University School of Medicine

Carol Tamminga, M.D.
Department of Psychiatry,
University of Texas
Southwestern Medical Center

MEMBERS

Huda Akil, Ph.D.
Department of Psychiatry
Molecular Behavioral Neruoscience Institute
University of Michigan School of Medicine

David Botstein, Ph.D.
Lewis-Sigler Institute for Integrative Genomics
Princeton University

Roberta Diaz Brinton, Ph.D.
School of Pharmacy, Pharmacology &
Pharmaceutical Sciences
University of Southern California

Paul Greengard, Ph.D.
Laboratory of Molecular & Cellular
Neuroscience
The Rockefeller University

John Krystal, M.D.
Department of Psychiatry
Connecticut Mental Health Center
Yale University School of Medicine

Pat Levitt, Ph.D.**
Department of Pharmacology
John F. Kennedy Center for Research
on Human Development
Vanderbilt University Medical Center

Peter Macleish, Ph.D.
Neuroscience Institute
Department of Anatomy & Neurobiology
Morehouse University School of Medicine

John March, M.D.
Department of Psychiatry
Duke University Medical Center

Eric Nestler, M.D., Ph.D.*
Department of Psychiatry
University of Texas Southwestern Medical

Marcus Raichle, M.D.
Department of Radiology & Neurology
Washington University School of Medicine

Bruce Rosen, M.D., Ph.D.
Athionoula A. Martinos Center for
Biomedical Imaging
Massachusetts General Hospital
Harvard Medical School

Edward Scolnick, M.D.
Psychiatric Disease Initiative
Broad Institute at MIT and Harvard

SCIENCE WRITER

Beth Schachter, Ph.D.
Still Point Coaching & Consulting

*Attended by teleconference Jan 7 only, **Attended by teleconference Jan 8 only

APPENDIX B

Agenda
NIMH Intramural Program Blue Ribbon Panel
January 7-8, 2008

Monday January 7, 2008
NIH Campus
Bldg 31C, room 6C6

9:30 AM	Introductions
	Charge to the Committee – Elias Zerhouni, Director, NIH
	Introduction to the Intramural Progams at NIH – Michael Gottesman, Deputy Director for Intramural Research, NIH
10:00	Orientation to the NIMH Intramural Program, history, response to prior Blue Ribbon Panel Report – Thomas Insel, Director, NIMH
10:50	*Break*
11:00	Peer Review for the Intramural Program: Board of Scientific Counselors – Richard Nakamura, Deputy Director and Acting Scientific Director, NIMH
12:00	*Lunch, Discussion*
12:30pm	Moving forward: Models of research – Richard Nakamura
1:00	GCAP – Daniel Weinberger
1:45	MAP – Husseini Manji
2:30	*Break*
2:45	Research in Children at NIMH – Susan Swedo
3:30	Cognitive Neuroscience at NIMH – Leslie Ungerleider
4:15	Executive Session
5:30	*Break for transport to hotel, dinner*
6:30	Dinner and group discussion – Brasserie Monte Carlo (Blue Ribbon Panel, Insel, Nakamura, Koester)

Tuesday, January 8

9:00	Panel meet with Insel, Nakamura, Koester, and Donald Rosenstein, Clinical Director, NIMH
10:20	*Break*
10:30	Executive Session
12:00	Discussion, *working lunch*
1:00	Adjourn