

Science.
Awareness.
Clinical Care.



THE JOHNS HOPKINS
MOOD DISORDERS CENTER



Holding the Line:

Hopkins' approach to mood disorders stems from a profound belief in science, awareness and clinical care.

Adolph Meyer envisioned programs “along lines...little-cultivated in this country” when he came to Hopkins in 1909 to head America’s first academic inpatient psychiatry center. Meyer stood out as a prime figure of early 20th century psychiatry. And the “lines” he had in mind meant a more ordered, scientific way to look at mental illness—ideas just short of radical at the time. Meyer’s belief in that approach, in addition to his passion for collecting detailed patient histories, echo to this day.

Separating out mood disorders as a discipline, though, didn’t catch on until Paul McHugh’s tenure as department head (1975–2002). As a revolution surged in molecular biology worldwide, McHugh wisely reminded Hopkins of science’s potential to ease psychiatric illness.

Neurobiologists, geneticists, neuroradiologists and behavioral biologists swelled Hopkins’ faculty. And a first-rate affective (mood) disorders program appeared, shepherded by J. Raymond DePaulo.

DePaulo set up both a consultation service and a hospital unit solely for patients with depression or bipolar illness. In 1986, he sparked large-scale community education through an annual affective disorders symposium that today attracts hundreds. He has been a key figure in studies on bipolar genetics. And because DePaulo, now Psychiatry’s director, has tackled mood disorders on three fronts—sound science, public awareness and finest clinical care—those priorities drive the Mood Disorders Center.

There is a wonderful kind of excitement in modern neuroscience, a romantic, moon-walk sense of exploring and setting out for new frontiers. The science is elegant, the scientists disarmingly young, and the pace of discovery absolutely staggering. Like the molecular biologists, the brain-scanners are generally well aware of the extraordinary frontiers they are crossing, and it would take a mind that is as empty, or a heart made of stone, to be unmoved by their collective ventures and enthusiasms.

From *An Unquiet Mind*
Kay Redfield Jamison

From Our Directors: Nothing Less than the Conquest of Mood Disorders

More than 20 million Americans suffer from depression or bipolar disorder. The World Health Organization's most recent global burden of disease study cites depression as the leading cause of disability worldwide. So curing these brain diseases in the best way we think possible—by understanding their genetics and biology and by translating sound clinical research into good care—is our constant goal.

But what might that mean in more practical terms? Should the pace of research keep up, here's a possible scenario: It begins ordinarily enough, with a man in his 30s who arrives at Hopkins, apparently depressed. We ask for a blood sample. But the first difference lies in a rapid gene screening and sequencing that reveal his as a particular subtype of depression, one fairly responsive to a new, tailored antidepressant. A printout tells us to titrate it to a dose best for him.

During several visits, after a few sessions of transcranial magnetic stimulation as additional therapy, his mood lightens. And, as his genes confer a greater susceptibility to environmental stressors, our patient also enters a program of psychotherapy. With the science of these illnesses becoming clear, societal attitudes have changed. Now our patient feels less stress discussing his illness at his office. He readily takes his medication because, as the depression wanes—our functional MRI confirms—he feels much more his creative, exuberant self.

We don't think our vision so unrealistic.

Our Hopkins colleagues in the war on cancer have cut a path to its cure: We're amazed to watch them type a patient's tumor markers into a computer and get a printout of options that let them tailor treatment and extend life as never before. That gives us hope as we begin *our* process. Like our oncology friends, we must wage our war on three fronts: science, awareness and clinical care. And, like them, we realize that only a strong infrastructure that fosters collaboration will succeed.

That's why Hopkins' Mood Disorders Center is a necessity. It provides a setting for collaboration, superb clinical teaching, a site for clinical trials, a place large enough to attract the creativity and spark the drive that will ultimately bring our patients what they need.



J. Raymond DePaulo
*Henry Phipps Professor,
Chairman, Department of Psychiatry
and Behavioral Sciences*



Kay Redfield Jamison
*Professor
Department of Psychiatry
and Behavioral Sciences*



The Mood Disorders Center About Us

We're no strangers to mood disorders.

Each year, thousands of patients come to our clinics with every nuance of mood illness—many with more than one psychiatric or physical disease. As members of one of the top psychiatry departments in this country, our faculty is experienced and compassionate. Moreover, our decades of genetic studies, especially recent ones that allow us to distinguish among the many varieties of mood disorders, give us sharpened perceptions of our patients and of what ails them.

We see, daily, the toll that the stigma of having mental illness and ignorance about treatment take on families and society.

At the same time, we're in an academic institution that, from early days, has held research into the biology of mental illness as fundamental, well before that was standard practice. Today, Hopkins Psychiatry's studies on the genetics of mood disorders, for example, have formed a foundation for worldwide research. The work takes place in what peers have rated as the number one hospital in the nation for the last 17 years, in laboratories that consistently top the list for NIH research funding.

All this gives us the perspective to change the status quo. Namely, we understand what we're dealing with in mood disorders; we're aware of what therapies cannot now but ultimately must be able to do. We have the basic

tools—the skills to accomplish fine science, to teach young doctors, the clinical infrastructure to run trials and an awareness of how to improve social attitudes.

Our desire for change is strong. The fact that present therapies don't help everyone is more than frustrating. And because whole-genome screening and other new biotech techniques tantalize us with—at last—a real understanding of mood disorders' basic biology, there's a hope and urgency we haven't felt before.

Science. Awareness. Clinical Care. They're all of a piece. Our clinicians alternate patient care and teaching duties with time in the laboratory or in running drug or other therapy studies. Some of us feel as though we live on airplanes, traveling nationwide to raise awareness about mood disorders.

The Center's clinician/researchers, clinician/educators, geneticists, data managers and analysts, medical psychologists, post-doctoral fellows, epidemiologists and specialists in clinical trials form a department-within-a-department, all working to advance the master plan outlined on the facing page:

How the MDC Works

The Johns Hopkins Mood Disorders Center comprises nearly 50 scientists, clinicians, technicians and administrators. **J. Raymond DePaulo, M.D.**, and **Kay Redfield Jamison, Ph.D.**, are co-directors.

James Potash, M.D., heads research endeavors while **Karen Swartz, M.D.**, oversees clinical services, **Mary Beth Beaudry, M.S.N., M.P.H.**, is the administrator.

Our Efforts

FIND CAUSES OF MOOD DISORDERS

Genetics

Finding genes for mood disorder risk is a priority.

Epigenetics

Could mood disease result, in part, from badly tuned gene expression?

Hormones

How do hormones affect at-risk patients?

Environment

How does stress trigger mood disorders?

USE THAT TO DEVELOP NEW THERAPIES

Animal Models

Once risk genes are found, we use that to create animal models for mood disorders, letting us study the neurobiology and identify targets for therapy.

Pharmacology

Our knowledge of mood disorder biology will let us screen hundreds of existing drugs for new therapies.

Neuropsychology

How does thinking/personality change in illness?
With medication?

How can we ensure that patients stay on their medications?

TEST/FINE-TUNE NEW TREATMENTS IN PATIENTS

Clinical Trials

Tightly designed studies let us test drugs and other therapies.

Pharmacogenetics

How can a patient's genetic makeup help us tailor medication?

EDUCATE ABOUT MOOD DISORDERS / LEARN BEST CLINICAL APPROACHES

ADAP

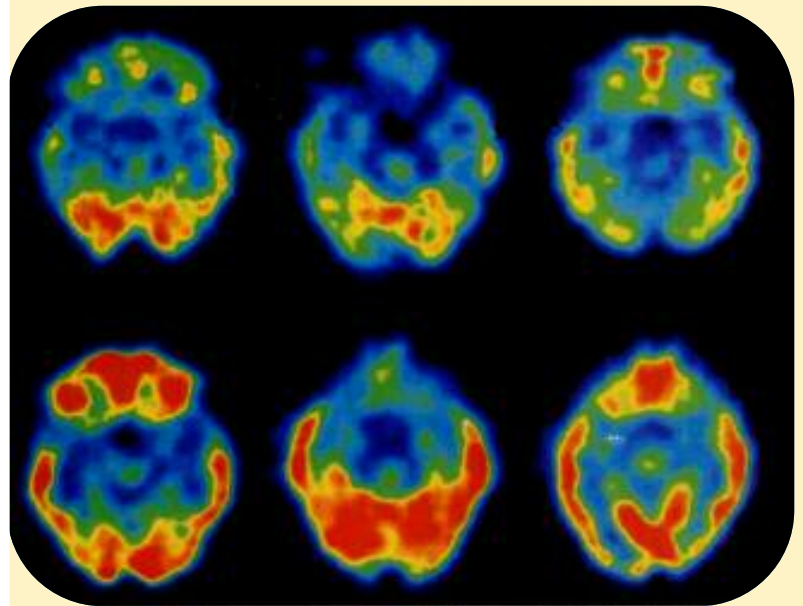
Our Adolescent Depression Awareness Program is expanding nationwide.

Outpatient clinic

A new clinic to let us follow patients over time will ensure better therapy.

Master clinician/educator

This physician's physician is a model for students, a resource for community doctors, a national educator.



Improved brain imaging is high on the Center's list as a tactic to improve diagnosis and treatment.

THE CENTER'S SCIENTIFIC ADVISORY BOARD

Our scientific advisors offer valuable direction and perspective.

They're known worldwide for their ability to lift research beyond the ordinary.

Antonio Damasio, a professor of neuroscience, directs the Brain and Creativity Institute at the University of Southern California. He's made seminal contributions to understanding how the brain processes memory, language, emotions and decisions.

Robert Gallo heads the Institute of Human Virology at the University of Maryland's Biotechnology Institute. The first to identify retroviruses in humans, he's the co-discoverer of the AIDS virus. His work sparked major advances in AIDS and cancer therapy. Gallo holds two Lasker Awards.

Solomon Snyder, a Lasker Award recipient, founded the Department of Neuroscience at Johns Hopkins. He's discoverer of the opioid receptor and endorphins. He pioneered the labeling of neuroreceptors, enabling the ability to locate all of the brain's major neurotransmitter systems. Snyder's work laid a foundation for revealing the biology of mental illness.

James Watson is best known as co-discoverer of the structure and function of DNA, work that earned him a Nobel Prize. Watson was a driving force behind the Human Genome Project. He's been associated with New York's Cold Spring Harbor Laboratory some 40 years, as director, president and chancellor.



He's trained leaders in
academic medicine,
helped thousands of
patients, made genetics
research far sounder.
Colleagues call Ray
DePaulo a triple threat.

A Ray of Light

Shadow Ray DePaulo on the Meyer 4 inpatient unit for an hour and it's clear that what he does isn't ordinary. DePaulo co-directs the Mood Disorders Center; he also heads Hopkins' psychiatry department, so you'd expect executive skills as well as a clinician's eye—the ability to size up illness, chart a therapeutic course.

But several decades of medical students and patients know there's more.

When he's on rounds, it's not the same physician who addresses a depressed, tearful elderly woman, a N.Y. film editor numbed by his new bipolar diagnosis, a young mother with a ladder of cuts up her arm. Of course, different illnesses and life histories demand some adapting. Yet DePaulo's whole posture and demeanor shift, as does the timbre of his voice, his closeness to the patient: He's reassuring with one; firm and somber with another; an advocate against a manipulative family member for a third. Words are honest: "This isn't quick. You can expect ups and downs for weeks, probably. Months even." His empathy enfolds patients like a therapeutic cloak. Stature and experience help keep it in place.

That same concern drives DePaulo's research. He began, in the early 1980s, by defining limits of lithium's use as therapy for bipolar disorder. But like many, he saw that the real

hope for that illness lay in isolating its genes. Understanding the biology would follow.

Thus began a hunt for bipolar genes that continues today. DePaulo and Hopkins colleagues were quick to see possibilities in linkage analysis—a statistical approach that tells the likelihood that a trait, such as having bipolar disorder, is linked to a specific stretch of chromosome. It's a first step. But the studies require the pedigrees of hundreds of patients and family members, squads of psychiatric interviewers and costly DNA sequencing—what DePaulo calls "big science" resources.

So in 1988-89, he became a leader of a dogged amalgam of the country's best psychiatric geneticists, the NIMH Genetics Initiative Bipolar Group, in a series of ever-better linkage studies that's continued for 20 years. Surprisingly, in several dozen national studies, most involving Hopkins, no master bipolar gene has surfaced. The groundwork, however, has produced a handful of suspects.

The Next Phase, then, turns on a new idea: that bipolar illness stems from the way a number of genes—some probably benign enough on their own—interact with each other and with environmental triggers. A new approach of tighter, "boutique" studies, as DePaulo calls them, aimed to flush out those genes from small, less diverse family groups, has already begun at Hopkins.

When Impatience Is a Virtue

James Potash entered this world at The Johns Hopkins Hospital, where his father was a psychiatrist. After Yale and the Peace Corps, Potash returned to Hopkins for a public health degree, medical school, a psychiatry residency. He joined the faculty in 1998. Perhaps it's his ease with the place that's let him step into uncharted research territory for a psychiatrist, even one comfortable with genetics.

Potash joined the search for genes just as his mentors were starting to clear the underbrush, work beginning to link symptoms of mood illness with chromosomal areas. Still, areas aren't genes. And Potash was more than keen to seek an alternate approach, one based on mood disorder subtypes—traits like having suicidal tendencies or having oddly distorted thinking—that can accompany the disorders. Because subtypes tend to bunch in families, he's found that surveying genomes of “purer” family groups can force subtype genes into the open. That, in turn, narrows the search for the “main” genes for bipolar (BP) or major depressive disorder.

Potash had his eye on psychosis, for example. In some BP families, he noticed, most everyone affected also has delusions or hallucinations. By sampling a whole family's DNA, he and colleagues narrowed symptoms of psychosis to chromosomes 13 and 22, incidentally

the same areas linked with such abnormal thinking in schizophrenia. The find not only gives a toehold for the fine-mapping that will likely yield genes; it also builds insight into the closeness of the two disorders.

What is most exciting, however, are his studies in epigenetics, a new field that deals with ways to control gene expression operating outside of the genetic code, even though it's still heritable (see box). Epigenetics may offer a scientist's heaven of sorts, the much-sought tie between mood disorders and environmental factors like stress or diet. Also, there's the exciting suggestion that therapies such as lithium and Depakote work, in part, by changes in the epigenetic control of key genes.

As the Center's research director, Potash is making epigenetic mood disorder studies a priority. He's begun, for example, by comparing postmortem brains of people with and without major depression for differences in epigenetic patterns.

The potential of a whole new approach to mental illness waits, untapped.

Gene Work: A Sample

- Center research has shown that:
- Bipolar disorder (BP) II is a common, genetically distinct illness.
 - Some chronic depression, especially one beginning in childhood, runs in families.
 - Certain BP subtypes likely have a genetic basis, with a chromosomal “home.” They include panic disorder (chromosome 18), psychotic symptoms (chromosomes 13 and 22), suicide attempts (chromosome 2) and early-age onset (chromosome 21).
 - A gene called NTRK3 codes for brain cell growth and development.
 - A flawed form of that gene, on chromosome 15, may raise risk of depression.
 - The gene FKBP5, which produces a protein tied to the brain's stress response, likely plays a part in BP susceptibility.
 - Two genes, HMG2L1 and NRG1, that code for signaling proteins within the nervous system appear tied to the risk of psychosis in BP.

Epi at the Forefront

Now that the genome is sequenced, scientists realize it's but a backbone for understanding how genetic programs direct development. Superimposed on the human DNA sequence, like so many Post-it notes, is a layer of heritable epigenetic information that we're only beginning to appreciate.

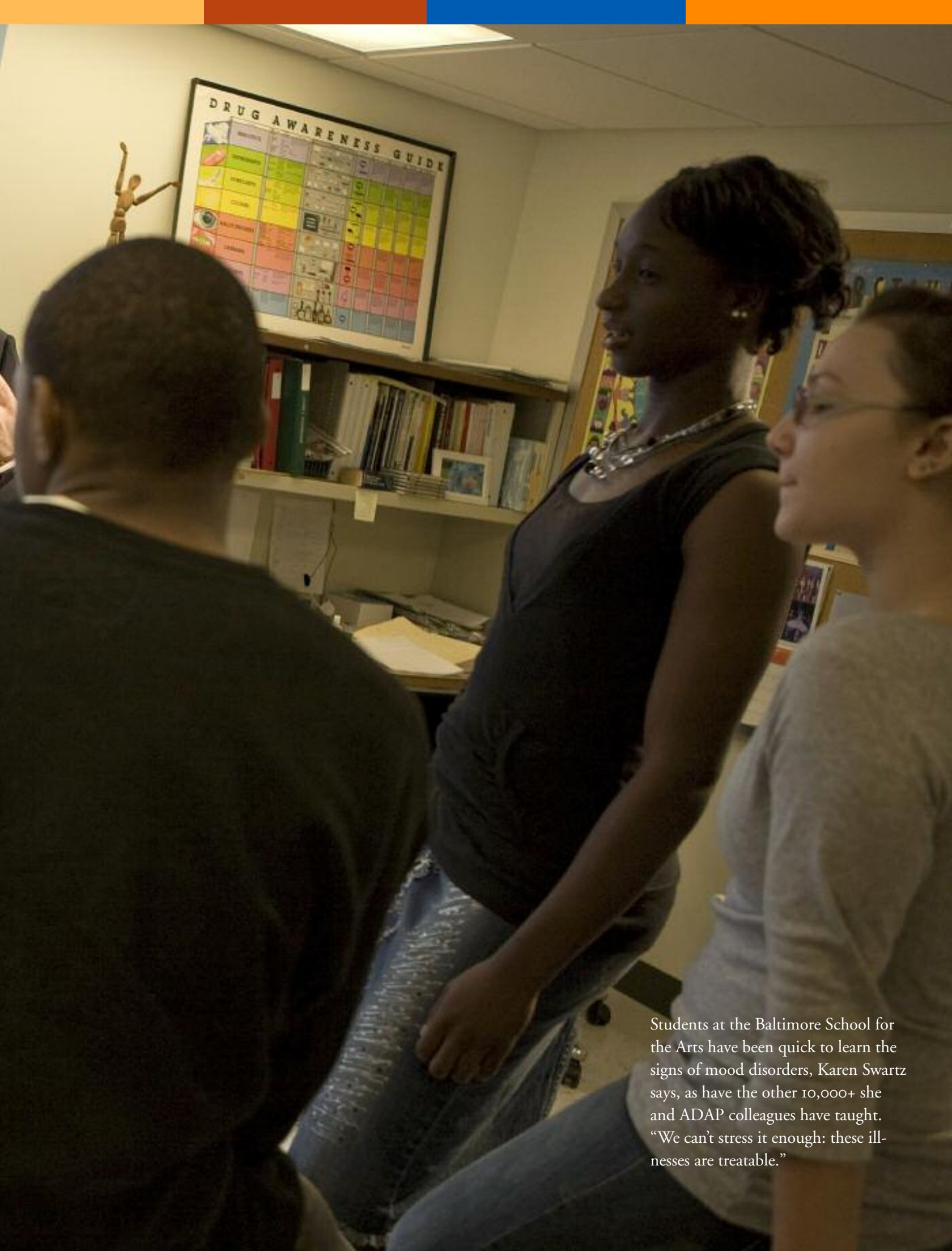
It's sure that added-on epigenetic controls play a part in human disease. In 1983, Hopkins researchers showed for example, that in certain cancers, the “post-its” were lost in ways consistent with each variety. But what of mood disorders? “Some connection is likely,” says the Center's James Potash, who heads efforts in the field. “We know, for instance, that Depakote, the most common bipolar medicine, alters epigenetic patterns.”

In 2007, Hopkins opened the first epigenetics center. And its new Brain Science Institute, a group of world-class basic scientists, confirms epigenetics as a frontier. Prodded by Potash, Hopkins has set up the Epigenetics Microarray Lab to uncover epi-effects on the brain in health and disease.

“I want to make a difference for my patients, and for their families. The thing that pulls hardest at my heartstrings is the parents. I always see myself in them and imagine what it would be like if my sons were tortured by depression or bipolar disorder.”







Students at the Baltimore School for the Arts have been quick to learn the signs of mood disorders, Karen Swartz says, as have the other 10,000+ she and ADAP colleagues have taught. “We can’t stress it enough: these illnesses are treatable.”

To Stem the Tide of Suicide

Finding at least one gene for suicide is a goal that occupies a fair amount of Virginia Willour's time. Recently, she and colleagues took a new look at earlier data on patients with problems where suicide risk runs high: in major depression, bipolar disorder and alcoholism. By focusing on people within those illnesses who had attempted suicide, the rationale went, her team hoped something would stand out. And it has, almost.

What's intriguing, says Willour, who has a Ph.D. in genetics from Stanford, is that all three disorders point to the same spot on chromosome 2. That would suggest that a "suicide gene" within it isn't solely tied to a specific disease. It looks to be something independent, something that may prompt an "impulsive aggression," Willour says, "that nudges an already depressed person to act on suicidal thoughts."



The next step—finding the actual gene—takes expertise and the researcher's ability to delay gratification. Willour has designed a large-scale study that acts like a fine sieve in winnowing out what's distracting in the broad chromosomal target area, to pinpoint where DNA differs between suicide-prone mood disorder patients and healthy controls. It'll take several years. "But I have incentive," she says. Her family's affected by bipolar disorder; her grandfather died of suicide. "Our goal is to bring new logic to therapy, to use an approach based on understanding the biology. So I'm in it for the long haul."

At Ease with Numbers



In **Peter Zandi's** hands, results of scientific research can take on a new life. He has both the intellect and a real gift for recognizing how data sets from a number of studies can be pooled to draw new conclusions, saving time, money and, sometimes, years of effort.

Zandi also sees how a study's outcomes fit into the larger context of psychiatric disease. All that makes him in demand.

Masses of data are the rule in epidemiology—one of Zandi's fields—and a part of the tools of molecular genetics—another field. The latter uses statistics to extract trends from hundreds of patient families, or to interpret millions of data points from DNA chips: the sort of demanding efforts that cause lights in the computer lab to dim.

Data managing, analysis and statistical genetics, then, are Zandi's strengths. He's joined national searches for bipolar, autism and panic disorder genes as well as studies on Alzheimer's disease therapies.

But Zandi's also aware of context. After the genome project sequenced human DNA, laboratories undertook the next generation of studies to unravel the purpose of specific sequences and to catalogue their small variances from person to person. As scores of different databases began appearing worldwide, Zandi's other skills come in. He's expert at finding and analyzing those databases to apply what's relevant to Hopkins studies. "By leveraging what's learned in the genetics community," he says, "you make more sense of your own data."



“When you think about it, pregnancy is a natural experiment. At no other time can we predict that a certain percentage of people will have a mood episode and know when.”

Birth of a Notion

“Unlike the women we see with typical postpartum mood problems, other women become deeply depressed literally hours after they deliver a baby, especially if they’ve been depressed before,” Jennifer Payne explains. “They tell me it’s like a curtain falling.”

Since her first encounters as a medical resident, psychiatrist Payne has felt compelled to help women whose moods slip out of control at hormones’ bidding: those with premenstrual, pregnancy, postpartum or perimenopausal difficulties. “Mood disorders in women are understudied, to put it mildly,” she says.

Payne aims to remedy that. First, she and colleague Karen Swartz created the **Women’s Mood Disorders Center**, a much-needed consultation clinic within Hopkins’ broader mood center. Payne also cites the desperate need for research. Clinical trials, for example, would tell

how best to use available therapies—What about lithium during pregnancy? Do you taper it during labor? More descriptive studies shed light on the biology. Because the mood disorders she sees come and go predictably, women can serve as their own experimental controls. “It’s a unique chance to tell what’s broken in major depression and bipolar disorder.”

Payne begins by collecting data: Following at-risk women through pregnancy and after delivery, for example, yields DNA for gene studies, information on stress levels and chemistry, on sleep and hormone levels. “I’m hoping to say something like, look, if you have elevated IL6—an immune protein—you’re at greater risk for postpartum depression.” IL6, then, could predict disease. And when, at last, patient-testing of a potential therapy comes around, IL6 might tell, early on, if it’s working. “Trials,” she adds, “make sense of what we do.”

“Our mantra is that
depression is a treatable
medical illness.”



The **Myth**-Breakers

Stopping a simple misperception could save the lives of thousands of young adults on the cusp of life.

That thought entered **Karen Swartz's** mind and took hold. "The idea out there," she says, "is that teenage suicide is a response to extreme stress or pressure and could happen to anyone." But that's so far from the truth as to be shocking, she says. A multitude of studies show that roughly 90 percent of teenagers who die that way had a treatable psychiatric illness. Worse, some of the very programs high schools use to prevent suicide—about three-fourths of U.S. schools have such a curriculum—inadvertently drain the act of its taboo status and may even romanticize it.

But Swartz is a resourceful woman with the right background—she's a psychiatrist specializing in mood disorders. She has public health training. And the word *can't* just bounces off her. In 1999, Swartz drew together a group of concerned Hopkins psychiatric nurses and clinicians, prompting creation of ADAP, the Adolescent Depression Awareness Program, which she now heads.



< Karen Swartz and Elizabeth Kastelic arm students with awareness.

ADAP's aim is to increase basic depression literacy, starting with high schoolers. Now a national program, it teaches the symptoms of depressive and bipolar illnesses, distinguishing them from normal adolescent ups and downs. Students—and, in separate programs, their parents and teachers—learn how clinicians diagnose and treat depression and why ignoring it courts danger.

"Our mantra," says Swartz, "is that depression is a treatable medical illness."

From the first, Swartz decided not to make suicide prevention the focus, but to take a public health approach, to cut a wider swath. "Many more teenagers will experience depression throughout their lives than will ever try to commit suicide," she says. "We focus on the mood disorders themselves and what to do."

Reliability marks the program. Using her research background, Swartz has been dogged in testing each phase of ADAP. She's seen, for example, that medical students or high school teachers can instruct as well as the core group who began it. She's analyzed which techniques work best. And it's paying off. Student pre- and post-tests show they're learning the truths. "Collaborators wanted to expand faster than I thought we were ready to," says Swartz. "No. No," I said. "We have to do it right."

A Rare, Healing Place

Not to have a place to come for expert care for an illness that often surfaces at one of the most vulnerable times of life has never made sense to psychiatrist **Elizabeth Kastelic**. That's why she directs one of the few U.S. psychiatric inpatient services for young adults and teens with mood disorders. Kastelic specializes in diagnosing and treating depression and bipolar disorder in those on the verge of adulthood.

The approach she and staff use hinges on an exquisite awareness of that stage of human development, on an ability to sort pathology from teenage angst, for example, or to use an awareness of peer pressure to advantage. And with home environment crucial to therapy for teenagers, educating parents becomes part of that approach.

Kastelic's clinical questions clearly guide her research. The shortage of information on mania in adolescence has prompted her to follow its appearance in children whose parents have bipolar disorder. And she's part of a national quest for better treatments for them.



The Near Future **Discovery's Bright Possibilities**

Psychiatrist Irving Reti knows better than most the need for variety in depression therapies. As the head of Hopkins ECT (electroconvulsive therapy) service, he sees the steady line of patients from all over the country who've come because antidepressants haven't helped or because they find side effects intolerable. "Effective as ECT can be," he says, "we've known for years that we need alternatives."

But now, psychiatry is discovering an exciting new physical approach to therapy. Somatic treatment, as it's known, springs from research in which stimulating specific areas of the depressed brain—directly with electricity or through targeted electromagnetic waves—apparently raises mood and does it well.

For years, Reti, also a neuroscientist, has studied molecular changes that follow ECT and other somatic approaches. That work now informs the new therapies. Furthest along is transcranial magnetic stimulation (TMS), a use of magnetic waves to rouse areas near the brain surface, like the prefrontal cortex, that have gone metabolically sluggish. Remarkably, patients show no apparent side effects so far in thought processes or memory. "And the early evidence says it may be especially effective in younger patients," says Reti, "which is good news given today's concerns about teens and antidepressants."



Dean MacKinnon's search for a bipolar marker goes in unexpected directions.

The Near Future **On the Way**

A Bipolar Biomarker

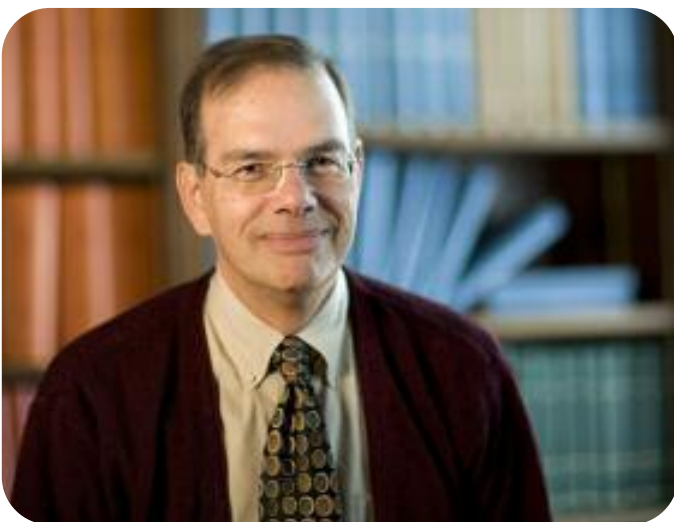
“Holy grail” is overworked, the stuff of bad brochures, but applied to bipolar research, the tag seems right. Because that disorder almost certainly rests upon multiple altered genes, as well as on environmental cues, creating a laboratory test—a biomarker—that can verify it in patients is indeed holy grail-ish. And psychiatrist Dean MacKinnon is a seeker.

Recently, MacKinnon devised a prototype test based on the idea that bipolar disorder stems, in part, from a problem in emotional learning. Something's amiss, he believes, in

the learning that shapes a person's appetites and motivates appropriate behavior. And just as such flaws may cause patients to cycle between having no motivation or too much of it, the underlying biology may also skew a most basic appetite, that for fresh air. In testing patients' response to breathing air with slightly elevated carbon dioxide, MacKinnon's noted that they show characteristic differences from people without the disorder.

He's now at work testing his biomarker in larger groups. If it holds, the benefits to patient treatment, to the search for therapy and to lessening stigma would be huge.

The Best Sort of Balancing Act



“Call it guilt by association,” says psychiatrist **Francis Mondimore**, considering a role for the three B vitamins—folic acid, B-12 and B-6—in depression. Some studies suggest that folic acid lifts mood and that too little B-12 or B-6 does the opposite.

A gifted clinician, Mondimore divides his time between seeing patients and writing for them. Reading his *Depression: The Mood Disease* and *Bipolar Disorder: A Guide for Patients and Families* is in itself therapeutic. But Mondimore's eye is also sharp for research to translate quickly to the clinic, as in his study of already-safe B vitamins.

All three, he says, are cogs in brain neurotransmitter machinery. As impor-

tant, however, is that they lower homocysteine, an intermediate but vile molecule in that same chemical cascade. Mondimore says homocysteine's recently discovered potential to damp nerve function in the hippocampus and other mood areas in the brain makes it suspect.

A series of studies he's planned should tell if the vitamins, as a trio, offer mood relief. The first sees if patients at high risk of depression are more likely to have genetically flawed vitamin metabolism. The second is to learn if that flaw's more common in the chronically depressed. Last come the actual trials of the vitamins for depressed patients.



Kay Redfield Jamison: **Tamper-Proof Humanity**

Patients at Hopkins Hospital who find themselves on the recovery side of a flight into mania or a free-fall into depression—especially young adults hearing they have bipolar disorder—are often given what should be called *bibliotherapy*. Kay Jamison’s book *An Unquiet Mind* is potent for doing what pills can’t: It lets patients read for themselves how destructive not taking their medicine can be, it tells of the healing power of structure, psychotherapy and a social network. It tells them they’re not alone. And, as critical, it shows, by Jamison’s example, that the diagnosis needn’t drain all the life from life.

Jamison is perhaps this country’s most famous writer about manic-depressive illness. Her books and articles not only help patients, they have raised society’s consciousness. Her public appearances inform Americans about their millions of fellow citizens who suffer mood disorders. Her work and life chip away at the stigma of mental illness.

Jamison, a professor of psychiatry and the recipient of a MacArthur “genius” award, has widely researched medication adherence and suicide. She is the co-author of *Manic Depressive Illness: Bipolar Disorders and Recurrent Depression*, the definitive medical text on the topic.

But within the Mood Disorders Center, Jamison is seen as a tether. She grounds its scientific studies in humanity, giving what she calls, “a broader notion of moods in the human perspective.

“I’m interested in the boundaries between normal moods and abnormal, between normal and abnormal behavior. It’s the overlap that fascinates,” she says. And it’s in those tenuous states between a normal passion and pathology, she believes, that exuberance and creativity surface. “The tie between high accomplishment in business, science and the arts and mood disorders is far from coincidental.” And understanding the psychology and biology behind that, she says, “could lead to therapy even better than what exists, that doesn’t tamper with a rich, imaginative life.”

We all build internal sea walls to keep at bay the sadnesses of life and the often overwhelming forces within our minds. In whatever way we do this—through love, work, family, faith, friends, denial, alcohol, drugs, or medication—we build these walls, stone by stone, over a lifetime. One of the most difficult problems is to construct these barriers of such a height and strength that one has a true harbor, a sanctuary away from crippling turmoil and pain, but yet



The Johns Hopkins Phipps Psychiatric Clinic, 1913.

A Book, a Boon

“More fundamental than any technical reform, cure or prevention...is a changed spiritual attitude toward the insane. They are still human: they love and hate and have a sense of humor.”

Clifford Beers, 1908

Like much that’s worthwhile at Hopkins, help for mood disorders began with a book and a donation. Clifford Beers was never a patient here; psychotic with bipolar disorder, he was shuttled among New England institutions. And in a lull in his illness, Beers detailed his brutal experiences in a memoir. The impact was profound.

In 1907, newly hired as head of Hopkins psychiatry, Adolph Meyer received a preprint copy of *A Mind that Found Itself*. Intrigued by a book that mirrored his convictions about treatment reform, Meyer offered his copy to Henry Phipps Jr., a hospital trustee. Phipps was deeply altruistic. And, as Andrew Carnegie’s right hand, he was also the world’s second wealthiest man. The resulting Henry Phipps Psychiatric Clinic was completed in 1913. It put a new face on treatment and kindled major advances in treating mental illness.

Almost a century later, we’re still indebted to Phipps, and to those whose gifts have enabled the best of psychiatric research, have raised community awareness of mood disorders and have helped make normal the lives of those who have them.

“The future belongs to science.”

Sir William Osler
Physician in Chief,
The Johns Hopkins Hospital,
1888-1904



**TO LEARN HOW YOU CAN MAKE A GIFT TO
THE JOHNS HOPKINS MOOD DISORDERS CENTER,
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