

## No 'Sleepless in Baltimore'

**W**hen Jill Leukhardt was an executive in a booming technology business a few years back, her bipolar II illness—which she didn't know she had—dovetailed nicely with her job. "I was one of those determined to have it all," she says. "I'd work until 2 or 3 a.m. because we needed the output. I loved it. And I'd routinely take the red-eye home from the West Coast to catch my daughter before she went to preschool."

Seven years ago, however, the disease caught up with her, and Leukhardt became seriously ill, first with depression. She left her job and sought help from both a psychiatrist and a Hopkins-trained psychologist skilled in psychotherapy. Gradually, life fell back into place. But after a year, her therapist spotted a disturbing trend, and, concerned, Leukhardt made her way to **Michael Smith, Ph.D.**, a clinician and research director for Hopkins' Behavioral Sleep Medicine Program. Abnormal sleep, part of the fabric of Leukhardt's bipolar disorder, had made hers a complex but not uncommon case.

"I'm a severe night owl," she says. "I tend to push sleep later and later." More than once the young woman has slept all day and lit up the house at night.

"For someone with a light-sensitive circadian dimension to her illness, that's the worst

situation for her," says psychologist Smith. "Moreover, in Jill's case, sleep problems are a sentinel for full-blown depression."

Psychiatry is just realizing sleep's role in mental disease, says Smith—not only bipolar disorder but depression, generalized anxiety, eating disorders, SAD and alcoholism, for example—with each apparently warping REM or other sleep markers in characteristic ways. "Altered sleep isn't just another symptom; it's an integral part of the disease and a window into its neurobiology." Consider the fact, he says, that briefly depriving severely depressed patients of sleep can dramatically brighten mood. "It's as good, temporarily, as the best antidepressant, and it shows sleep's systemic role."

But that word hasn't gotten out, Smith explains, nor has an appreciation of behavioral sleep therapy—a focus of a new Hopkins program (see sidebar).

Part of Smith's research explores behavioral therapy as it's shaped for insomnia. It begins with evaluation: Smith sought the cause of Leukhardt's problem via interviews, sleep diaries and



"Cognitive behavioral therapy can stop primary insomnia every bit as well as a pill, our studies show," says expert Michael Smith. "I know it's made a difference," Jill Leukhardt agrees.

monitoring. Was it her poor sleep habits? A faulty biological clock? A state of heightened arousal? With the latter, there's a suggestion of a "broken homeostat," a flaw in the brain's input to hypothalamic sleep and arousal centers or within the centers themselves. Normal balance between the two is upset, tilting to the arousal side.

Then EEG studies are sometimes pulled in, Smith says, especially newer quantitative methods that point out specific brainwave patterns. When some patients come with unremarkable sleep studies, for example, digging into their "sleep microstructure" reveals subtle swells in brain activity. "My mind still races though I'm half asleep," they'll say.

As for Leukhardt, behavioral therapy combines light-box use, sleep restriction—she was told roughly when to go to bed and when to

wake up—and improving sleep hygiene. If she's sleepless more than 10 minutes, for example, she leaves the bed to read in a low light until drowsy.

These approaches undeniably show that insomnia is neurobehavioral, Smith says. So do his SPECT images—they give visual proof that therapy partly corrects an insomnia-sparked drop in cerebral blood flow.

Because therapy poses some risk for Leukhardt, she sees Smith regularly for fine-tuning. Both sleep restriction and light therapy can trigger manic episodes, so her use is judicious. Smith can see their value, though, as does she: "This definitely makes a difference. My sleep is much more stable. Is it a coincidence that my mood is too? I doubt it."

For information: 443-287-2384 or [www.sleeplessinbaltimore.com](http://www.sleeplessinbaltimore.com)

### TRANSLATIONS

## Hypnotics OK

For some, there's been a tinge of "mother's little helper" about hypnotics—sleeping pills—a suggestion that their use somehow implies weakness or that taking them more than briefly is harmful. But, says psychiatrist **David Neubauer**, that's one of many myths that surfaces in sleep medicine, his specialty of 22 years.

As a clinician with Hopkins' just-beginning Behavioral Sleep Medicine Program, Neubauer, who writes widely about hypnotic medications, hopes to dispel such ideas. The program addresses the overlap between sleep disorders and other illness, especially that with a psychiatric element. And though, as the name implies, behavioral therapy is the focus, it's not everything. "For many patients, you blend behavioral and pharmacological treatment," Neubauer explains. "You'd never prescribe a hypnotic medicine without attending to someone's sleep behaviors—their bedtime routines, for example."

About the myth: "It's true that the average person only needs sleep medicines a short time," he says. "But there's no question that plenty of patients with chronic insomnia can benefit from longer use, especially if they do well at night and function well in the daytime." The FDA concurs, he says, having expunged the "short term" wording from prescribing guidelines.

Neubauer and colleagues also counter the myth that in depression, simply treating the mood disorder makes sleep problems disappear. "Addressing insomnia directly can restore proper sleep," he says.

As for the sleep medicine program—newly housed on the Bayview campus—it aims to "crack the puzzle of how psychiatry and sleep are interrelated," says Director **Una McCann, M.D.** Its clinical arm offers therapy for sleep and circadian rhythm disorders while a research focus seeks to clarify how pain, traumatic brain injury, burns and cardiac disease, among others, relate to sleep. "A lot of people want to collaborate," says McCann. ■

For information: 410-550-1972.



### Psychiatry: STAT

Why the psych ED's not like other places.

PAGE 2



### Traumatic Brain Injury

Saving "nobody's baby."

PAGE 3

### Ladies Who Launch

A pilot program paid off.

PAGE 4

## Psychiatry: STAT

**A** corner of the main Hopkins ED, home of emergency adult psychiatry, roughly covers the footage of a large living-room. The walls show a few impressive scars from the 3,000 or so psychiatric patients who've passed through each year for the past quarter-century: walk-ins from the neighborhood or several states away, referrals who deplane from Paris and take a cab to East Baltimore, and, from clinics across the street, outpatients deemed too precarious to go home.

"The area wasn't designed for psychiatry," says **Patrick Triplett, M.D.**, who directs Psychiatric Emergency Services at Hopkins Hospital, "so privacy can be a challenge." And like the Holland Tunnel, traffic rarely stops. But it's a healing, fascinating, necessary place, Triplett maintains. His years as director have made him both wise and pragmatic, and under his watch, the small and occasionally tumultuous-appearing spot is one of the best-run psychiatric emergency facilities anywhere.

Some ED issues are generic—tied to the overlap of psychiatry and emergency medicine. With Baltimore's drug abuse problem, for example, staff often treat patients whose substance-dependence crises are layered atop other psychiatric disorders. "That makes diagnosis difficult," says Triplett. "Somebody may come in hallucinating and tell us, 'I



"I stopped watching ER years ago," says Patrick Triplett, M.D. "Their psychiatrist would never make it."

have schizophrenia.' But then a cocaine screen comes back lit up. Where does the truth lie? It may take days to find out, to let the drug wear off and see if there's a persisting, underlying psychotic disorder."

**"We're seeing more patients; they're staying with us longer."**

And questions of whether to discharge patients loom large. "It's tremendously hard to predict what people will do when they walk out," explains Triplett. "Our residents, especially, can feel uncomfortable with stay-or-go decisions. How do you teach that sort of thing? Collect data on patients, we tell them; see if the woman on the gurney has 'informants.' Sharpen your diagnosis and always err on the side of safety. I was

shocked, for example, the first time I heard a man say, *if you don't admit me, I'll kill myself.*" Now, Triplett says, "I see that remark as something of a prototype and probe more deeply, for example, for mood, personality or substance use problems."

It's the issues imposed from outside, however, that trouble him. "We're seeing more patients and they're staying with us longer." This isn't unique to Hopkins; it's nationwide and stems, in part, from shrinking inpatient psychiatric facilities. Maryland, for example, is considering closing its acute care beds in all of its state hospitals. "That'll put the hurt on us," says Triplett.

Insurance companies add insult, he says, as their preauthorization require-

ments for psychiatric patients and the other corporate hurdles slow patient admissions. The average psych ED stay before someone can transfer to Hopkins inpatient units has reached 13 hours—beyond what's typically needed for comprehensive emergency care.

Improvements, however, are real. "We were able to get Maryland law changed to require at least some insurance companies to be available 24/7 for approval," Triplett says. Residents are taught more nuanced emergency psychiatry and supervised more, he explains. In 2005, full-time psychiatric nursing was added.

And recently, staff from psychiatry and emergency medicine, security, social work, Hopkins legal branches and those dedicated to patient innovation began meeting to make the ED safer. Already, a newly revamped triage system, with its five-tier rating of psychiatric patients on urgency of care, is becoming a model.

"Obviously, you know that someone who's agitated, shouting and bleeding needs immediate help, while someone wanting a medication refill probably doesn't," Triplett comments. "But patients in-between are less clear; that's where the system helps."

As for Triplett, he seems to thrive. "I *like* the fact that not every day is the same." ■

## BENCHMARKS

# Attempting Suicide, Uric Acid and Elderly Brains, Hormone Cycles and Mood Disorders: Psych News from Hopkins

### Suicide and Chromosome Two

A handful of previous studies—ones with twins, for example—suggests that attempting suicide may have some genetic basis. Now a team of Hopkins and other researchers led by **Virginia Willour, Ph.D.**, has shed stronger light on that possibility. Analysis of a whole-genome linkage study of 162 families with bipolar disorder—some members attempted suicide—revealed a significant site on chromosome two. It's not the first time that site's been pointed to: It surfaced in earlier studies of attempted suicide in families with major depression or with alcoholism, both diseases with high suicide risk. *Biological Psychiatry*, March 2007

### Hormonal Mood Upsets More Common in Some Women

Women with a history of depressive or bipolar disorder often have premenstrual mood problems or mood upsets after childbirth or around menopause, evidence shows. But nothing concrete tells how commonly that occurs, says **Jennifer Payne, M.D.**, whose recent study

addressed the issue. Payne led a team that reviewed earlier studies' data with a new eye for the prevalence of cycle-linked symptoms—one data set came from family pedigrees with early-onset major depression and another from a 10-site study in families with bipolar disorder: 2,524 women in all. The results? Almost 68 percent of women with mood disorders reported premenstrual symptoms, compared with 34 percent of those without. For postpartum problems, it was 21 percent vs. 3 percent. *Journal of Affective Disorders*, Oct. 2, 2006

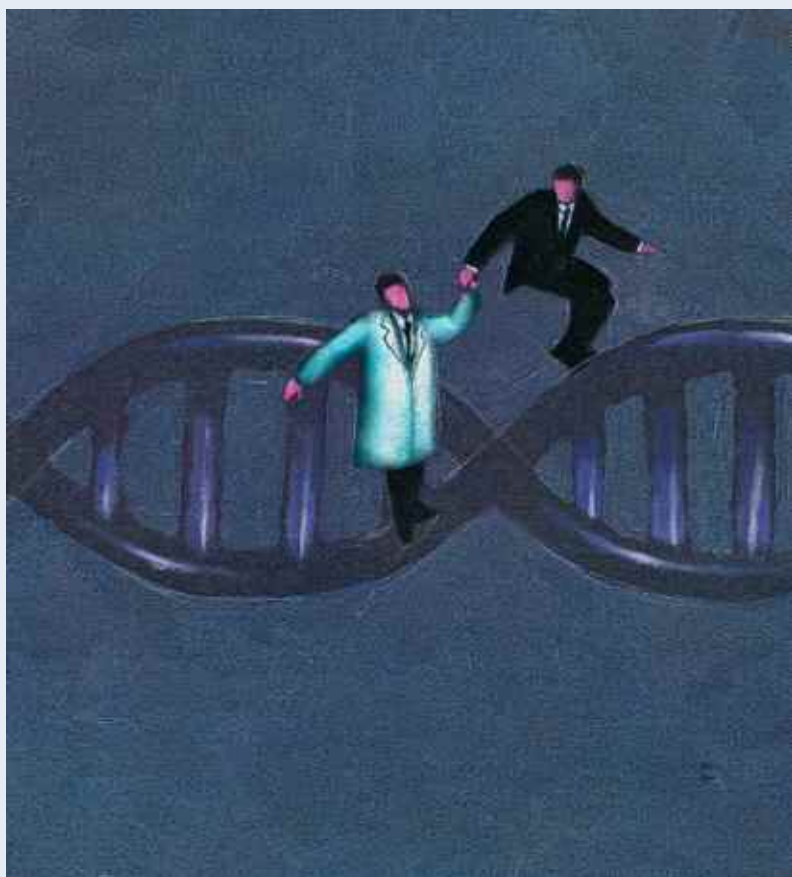
### Weight Gain: Mapping Clozapine's Added Insult

No one doubts the benefits of atypical antipsychotic drugs like clozapine in improving schizophrenia. One down side is the often large weight gain as patients' appetites rise. Major studies are ongoing to map the biology and so increase the likelihood of blocking this side effect. Interest centers on a key enzyme in the hypothalamus, AMP kinase, that tips the

balance toward hunger: Recently, a team headed by **Solomon Snyder, M.D.**, showed that the current drugs potently stimulate the enzyme by first docking with a specific histamine receptor: It's a small but firm step on a road to improving therapy. *Proceedings of the National Academy of Sciences*, Feb. 19, 2007

### Cognitively Impaired? Check Uric Acid

A simple blood test to measure uric acid might expose a risk factor for cognitive problems in old age, says **David Schretlen, Ph.D.**, who led a recent Hopkins-Yale study. Of 96 community-dwelling adults age 60 to 92, those with high normal uric acid levels had the lowest scores on tests of mental processing speed and verbal and working memory. "Primary care physicians might want to ask elderly patients with elevated serum uric acid if they've noticed problems in thinking," Schretlen says. Neuropsychological screening might be a good idea. *Neuropsychology*, January 2007



# The Real Trauma of TBI

*Understudied and underdiagnosed, survivors find clinic life-changing.*

**T**hey're nobody's baby." Psychiatrist **Vani Rao** says that of more than a few of the people who see her after their auto accidents, falls or assaults resulted in brain damage. Rao heads the Brain Injury Clinic on Hopkins' Bayview campus. At some point, losing consciousness and/or memory got patients rushed to an emergency room, then surgeons were quick to address what they could. "But after rehab and followup visits," Rao explains, "they're often left on their own. Nobody 'needs' to see them any more because, supposedly, their acute problems have been tended to."

For many of the 1.4 million annual survivors of traumatic brain injury (TBI), however, that's when the real trauma begins (see story, below). "Neurological effects usually improve or become stable with time," Rao says, "but emotional, mood and behavior disorders can persist over months or years." Anxiety, apathy, a whittled attention span and other cognitive and psychiatric problems aren't rare. Hair-trigger anger or unbridled bluntness, for example, redefine some sur-

vivors' personalities. "Before long, their families' patience fades," Rao says. "Then everyone suffers." TBI raises the risk of death by suicide to four times that of the general population.

Because the need for therapy and heightening family understanding is great, Rao set up the clinic some six years ago, as part of Hopkins' Community Psychiatry program. And because TBI is "understudied and underdiagnosed," Rao has found herself one of few U.S. psychiatrists working to define its mental effects and clarify the problems that follow.

How does the clinic help?

A daughter of Hopkins Medicine, Rao relies on the tested, conceptual approach to diagnosis and therapy that mentors **Paul McHugh** and **Philip Slavney** laid down in *The Perspectives of Psychiatry*. She first addresses the biology. "Some problems clearly stem from the injury," she says. Frontal cortex damage or short-circuited deeper brain circuits can make patients impulsive or bring on major depression. Antidepressants can ease the latter, which affects a third to a quarter of TBI patients. Other

drugs may tighten attention, memory or executive function.

"But to say it's all biology accentuates the disease at the expense of the person," Rao says. There are psychosocial aspects: TBI's dramatic onset, for example, often swamps patients' coping abilities. It widens hairline cracks in family relationships. And patients' sudden drop in self-awareness—common in prefrontal injury—distresses everyone.

So Rao assesses the new vulnerabilities and ways patients respond to what life hands out. Learning who the 'new' person is suggests ways to cope. "We help patients see that they're easily frustrated, for example, and teach ways to avoid situations that play on that." The clinic's two therapists motivate and offer the support it takes patients to change.

Targeting troublesome behavior—that within patients' control—is also useful, Rao says. Though not a direct out-

come of injury, abnormal social or sexual behaviors may surface as inhibition fades in impulsive patients. Suggestive remarks or inappropriate touching can really send life downhill fast, she says, especially when a patient's self awareness is weak.

And, last, says Rao, her staff delves into patients' life stories for a true perspective. From that vantage point, she says, therapist and patient look down together on past and present and, almost dispassionately, choose a good path or, "rescript" the story.

"People need to know their problems are common after TBI, that they're not a sign of moral weakness, and that they can become whole in a new way." ■

*For information: 410-550-0019.*



Newly married and in his 30s, Terry Conner was a cheerful and industrious subcontractor, a man who saw his job as a calling: "Building houses was what I wanted to do. I was good at it." In November 1997, however, Conner

## Catching Terry Conner

slipped from a 40-foot scaffold.

He fell for seven years.

Conner went into a two-week coma from the impact that fractured his right eye socket and injured the right frontal lobe and, by rebound, part of the left temporal brain. Still, after corrective surgery and a half-year of rehabilitation, Conner felt ready to return to work. Work, however, wasn't ready for him. Inklings that he'd changed had come in the rehab facility: He'd made sexual overtures to his wife beyond the appropriate. And over the next few years, outbursts of anger toward coworkers and others, along with uncharacteristic sexually impulsive behavior, cost him his job and got him arrested and even jailed for several months.

"My injury let the warning light go off," Conner explains. "It wiped out my self-control."

Made to leave his church, separated from his wife, estranged

from most of his family—including his two young children—he endured short but potent thunderstorms of sadness and persistent feelings of worthlessness. It was a lonely and anxious man who came to Hopkins some six years after the accident.

"As a traumatic brain injury patient, Mr. Conner is the rule rather than the exception," **Vani Rao, M.D.**, told colleagues at a recent psychiatry Grand Rounds. Now the extent of his therapy is also becoming standard. During a short inpatient stay in a Meyer 5 neuropsychiatric unit, Conner received extensive diagnostic testing. At his release, Rao, who directs Hopkins' outpatient Brain Injury Program, devised a highly individualized treatment plan, one meant to "rescript" his life. To give a biological hand up, he was prescribed sertraline for depression and amantadine for "frontal lobe symptoms" such as

impulsivity, a low tolerance for frustration and tissue-thin inhibition. Depot lupron effectively quieted libido.

One-on-one cognitive behavioral therapy has helped Conner, as have group therapies—weekly sexual behaviors meetings and daily psychosocial rehabilitation that includes role-playing. "We've been coaching him to think before he speaks, to learn to accept and cope with his injury," says therapist **Shari Keach**, who's expert in accentuating Conner's genuine strengths.

Gains are clear. Recently, he and relatives took his children to the zoo. He's begun computer training. Sexual aggression has stopped. And Conner says he likes himself: "It's been like watching a baby grow. I'm more empathetic, more patient." With a directness that's the bright side of losing inhibition, he adds, "My entire heart was in pain. Now it doesn't hurt." ■

### ADHD

**Teenagers 13 through 18 who use drugs or alcohol and who also have problems with ADHD**

may participate in a study that uses medication and cognitive behavior therapy. Participants receive an assessment, study medication and behavior therapy at no cost. No insurance is needed and study subjects earn payment. Geetha Subramaniam, M.D., leads the research. Call 1-877-453-3399.

### Anxiety Disorder

Anxiety in children is more common than most think; up to 10 percent suffer from anxiety disorders. Now a Hopkins study sponsored by the National Institute of Mental Health **evaluates the benefits of cognitive behavioral therapy and an investigational medication for children and adolescents with excessive anxiety.** Young people 7 to 17 who suffer from anxiety disorders that interfere with school, social activities or relationships may be eligible. John Walkup, M.D., and Golda Ginsburg, Ph.D., are co-principal investigators. Call 410-614-4460.

### OCD

**Families with obsessive compulsive disorder are invited to help scientists learn more about its causes.** Advances in molecular biology and statistical genetics now make it possible to identify specific genes that underlie such complex diseases. But families are also vitally needed. If at least two members of your family are diagnosed with OCD or exhibit symptoms, you may be eligible to join in a nationwide study. Participation includes a confidential interview—scheduled at a convenient time and place—and a blood sample. Compensation is given. Jack Samuels, Ph.D., is the principal investigator. E-mail [jacks@jhmi.edu](mailto:jacks@jhmi.edu) or call 410-426-4822.

### Schizophrenia/Schizoaffective/Bipolar Disorder

**Jewish individuals are needed to participate in a study to understand the biological basis of schizophrenia and schizoaffective disorder.** Partici-

pation involves a confidential interview and a blood sample. We come to you. Compensation is \$100. Ann E. Pulver, Ph.D., is principal investigator. Call 1-888-289-4095 or e-mail [familystudy@jhmi.edu](mailto:familystudy@jhmi.edu)

### Tourette's Disorder

**Children and adolescents age 9 to 17 with chronic tics or Tourette's disorder may be eligible for a study to see if behavioral treatment reduces tic severity.** Growing evidence supports the potential of behavioral treatment as effective in reducing tics. In this study, participants may continue on existing medication. Tic disorders may include repeated involuntary muscle movements such as grimaces, tongue or arm movements and head jerks. Also, uncontrollable repetitive humming, sniffing, coughing, throat-clearing or whistling may be characteristic. John Walkup, M.D. directs this study. E-mail [tics@jhmi.edu](mailto:tics@jhmi.edu) or call 410-955-1551.

# The 'Housewife' Will See You Now

*Two quality solutions to a city's therapist shortage.*

The path that **Lois Feinblatt** and **Ellen Halle** have chosen for the past 36 years is one some women dream about while they sort socks in a steamy laundry room. Even the way it came about has a fabled feel to it. In 1966, word got out about an unusual Hopkins program to train mature women as "auxiliary psychotherapists" as a fix for Baltimore's shortage of community psychiatry professionals. The project mirrored an earlier NIMH model.

As then-head of Psychiatry **Joel Elkes** told the *Baltimore Sun*, "We're tapping a great reservoir of talent represented by intelligent married women in their 40s. They've become experts in family management just as their families are leaving home." Those chosen, he said, would be college graduates with "psychological awareness, minimal defensiveness and an ability to empathize."

So just as the program appeared, Halle and Feinblatt fit right in. The two women, both college graduates in English literature, had seven non-cookie-cutter children between them, had managed active households and had "served sentences" on social service boards. Married to prominent, successful men, they were accomplished and worldly in the best sense. Feinblatt had worked a decade for the city's Department of Welfare.

Acceptance, however, wasn't a snap. Some 40 others were as eager, Halle says, especially new psychologists wanting clinical experience. "We survived an avalanche of interviews," says Feinblatt. The women also role-played and dealt with hypothetical patients. For a month, their every word was weighed by clinicians rapier-sharp to nuance in speech and thought. "It was both intense and dramatic," says Halle, who remembers it vividly. "But because I'm not a competitive person," adds Feinblatt, "it was also somewhat terrifying."

For the next two years, the two spent 40 hours a week in study, gaining an intensive clinical education. Rooming together on campus made them fast friends. And training under the area's finest psychoanalysts and psychiatrists served them, and the community, well. Then came a third-year internship.

"The program wasn't without controversy," says Halle. The trainees were called "the housewives" behind their backs by green-eyed residents put off after seeing women their mothers' age develop a quick rapport with their patients. It also stung when, in grand rounds, the chief of medicine asked "the housewives" not to ask questions, please.

A dedicated lot, all eight of the Hopkins trainees graduated, most taking jobs throughout the



"This country needs a good \$5 psychoanalyst," Feinblatt and Halle were told.

city. The program proved wonderfully relevant.

Ultimately, Halle and Feinblatt earned master's degrees and certification as licensed clinical professional counselors. At first they worked in private or group practices, but then, in 1970, Hopkins' **Chester Schmidt** thought they'd fit well in the new Sexual Behaviors Consultation Unit he was co-heading with fellow psychiatrist **Jon Meyer**.

In the days of Masters and Johnson, when human sexuality clinics dotted the country, the SBCU was one of few tied to a major medical facility. Its reliance on scientific rigor brought respect that lasts today.

"From the beginning it's been a place where patients learn about themselves," adds Feinblatt, "where they're made to feel comfortable." First inter-

viewing patients, then adding to their evaluations, the women soon became instructors in psychiatry. They were sought out as therapists, and still are today.

They also weathered the clinic's three phases: first, after the discovery that women could be orgasmic—a time that couples' appointments surged, says Feinblatt. Then they began to see men whose impotence, in part, followed from demands of the first phase. Now, says Halle, disorders of desire are more common: "We've identified the functional-but-disinterested patient."

Through that, says Schmidt, "Lois and Ellen have kept a broader, psychodynamic view of mental health. They know how and why our patients do what they do. Their observations are invaluable. They have a depth of understanding that our medical students can't touch." ■

## Charmian Elkes: Her Award Goes On

Charmian Elkes was quietly a pathfinder. A British clinician in Birmingham, England, she exercised her research talents at the University of Birmingham, conducting classic studies with then-husband Joel Elkes, that revealed the value of a biochemical approach to mental illness.

In the early 1950s, for example, they undertook a blinded clinical trial of chlorpromazine, proving its worth as the first "real" drug available for hyperactive psychotic patients.

In 1957, now with the NIMH in Washington, D.C., Elkes conceived a pilot project to give selected women a short course in psychotherapy's practical aspects—a new way to train mental health counselors. Its success led her to start the program at Hopkins, where she practiced from 1966 to 1969, an undertaking that changed the lives of Lois Feinblatt and Ellen Halle (article, left), this year's co-recipients of the Charmian Elkes Award for Excellence and Innovation in Mental Health Services. The award will be presented at Psychiatry's 21st annual Mood Disorders Symposium in April. ■

## Save the Date!

The 21st Annual Mood Disorders Research/Education Symposium features award-winning authors and authorities on depression and bipolar disorder Kay Redfield Jamison and Fred Goodwin.

**Tuesday, April 24, 1-6 p.m. at Hopkins' Turner Auditorium**

For information: 443-287-3480.

## BrainWise

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