



MassBio news

MASSACHUSETTS BIOTECHNOLOGY COUNCIL



The **2012 BIO INTERNATIONAL CONVENTION**, the world's largest event for the biotechnology industry, successfully came to a close on June 21. The four-day event, held at the Boston Convention & Exhibition Center, drew 16,505 industry leaders from 49 states and 65 countries. One highlight was an announcement by Gov. Deval L. Patrick, at left, regarding \$1.3 million in grants for U.S. and Israeli biotech firms.

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PHOTO: SEAN BROWNE

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MassBio news

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Collaboration convenes at BIO in Boston



ROBERT K. COUGHLIN

Collaboration was one of the big themes we saw at this year's BIO International Convention, particularly in the Massachusetts Pavilion, with a goal of spurring new projects and life-saving drugs. Since Boston last hosted the convention in 2007, Massachusetts has continued to grow and add biotech industry jobs. We have distinguished ourselves as the home to the greatest number and concentration of biotechnology research employees in the nation. Much of this is due to industry,

government and academia all working collectively to create a culture of innovation. This year, we were excited to make three groundbreaking announcements – the formation of the Mass. Neuroscience Consortium, the first round of grants awarded under the Massachusetts-Israel Innovation Partnership, and the launch of a multi-national throat cancer research study – all of which will help to accelerate early-stage R&D.

I thank each and every one of you who attended the convention and visited us in the MA Pavilion to show your support. I know many visitors left encouraged to join our vibrant community.

Next on the agenda, it is our goal to make BioPharm America 2012 the most successful deal-making event on the East Coast and the

primary event to showcase therapeutic and research innovation. No host community is better positioned to do this than we are and I encourage you to register for BioPharm America today.

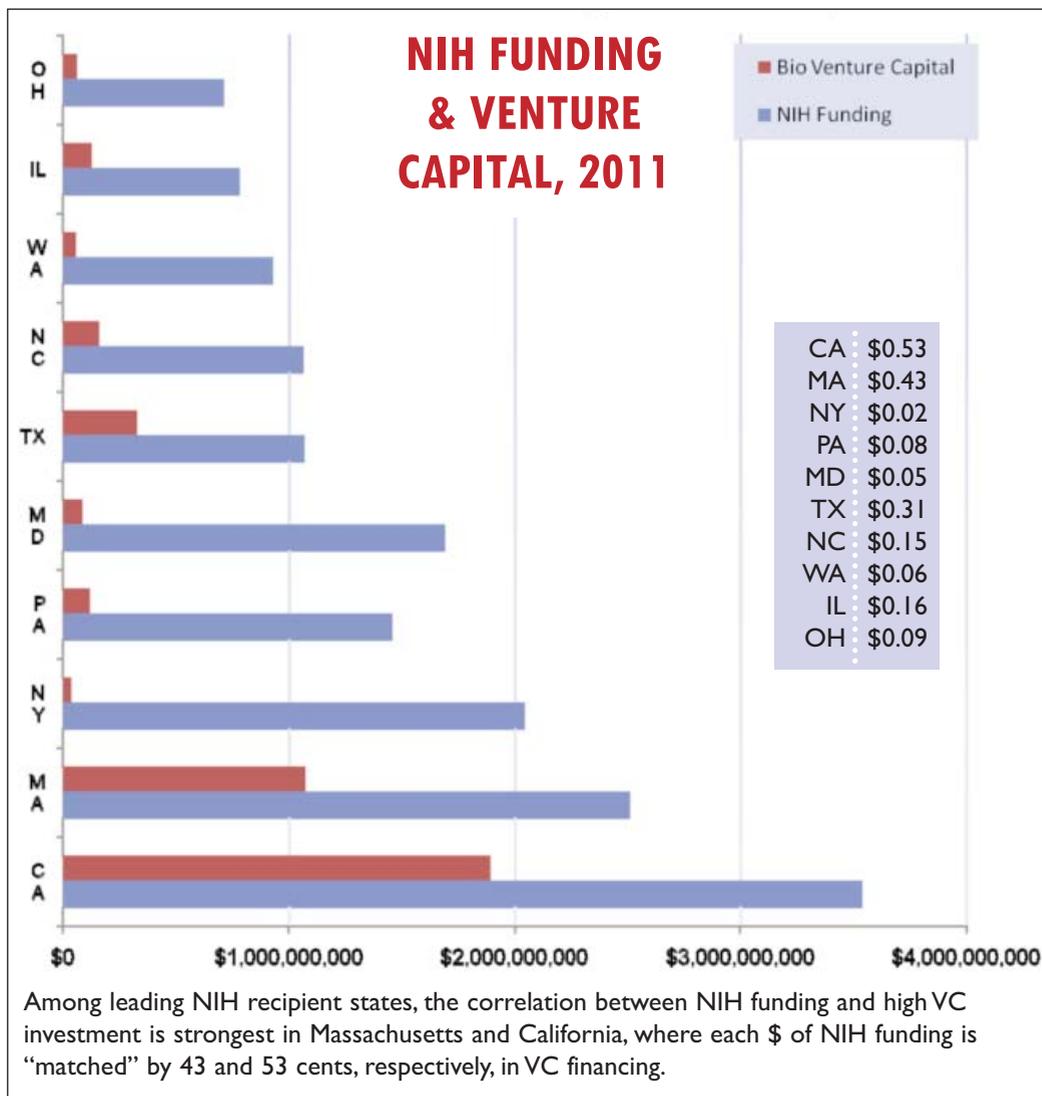
I also invite you to join us for our annual golf outing on Sept. 7 at Pinehills Golf Club in Plymouth. Proceeds support MassBioEd's work advocating for and funding programs and services proven to build the Massachusetts' biotechnology workforce. You will read about one of those programs, Job Shadow Day, inside this edition.

Best wishes for a relaxing, enjoyable rest of the summer.

Robert K. Coughlin is president & CEO of MassBio.

NEW MASSBIO MEMBERS

- Accenture
- Algeta
- AMRI Burlington
- Atreaon, Inc.
- Avison Young New England LLC
- BioWin
- Corealis Pharma Inc.
- Coronado Biosciences, Inc.
- Critical Outcome Technologies, Inc.
- Ember Therapeutics
- Enterprise Ireland
- Era7 Bioinformatics Inc
- Gen9, Inc.
- iGEM Foundation
- KeraFAST, Inc.
- Manus Biosynthesis
- Millennium Research Laboratories, Inc.
- Pepper Hamilton LLP
- PerkinElmer Inc
- PharmaForm
- Red Sky Partners
- Sage Therapeutics
- Sirius Analytical Inc.
- Sullivan & Worcester LLP
- Walden Vision



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September 7, 2012
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To register visit www.massbio.org or call 617.674.5100.

Q&A WITH JONATHAN THOMAS

President & CEO, American Century Investments

Q Who is American Century Investments and what is your connection to life sciences?

A American Century Investments is a leading privately held investment management firm, committed to delivering superior investment performance and building long-term client relationships since 1958. Serving investment professionals, institutions, corporations and individual investors, American Century offers a variety of actively managed investment disciplines through an array of products including mutual funds, institutional separate accounts, commingled trusts and sub-advisory accounts. We were founded in 1958 by James E. Stowers Jr. In 1994, Jim established the Stowers Institute for Medical Research. The Stowers family endowed the Institute with gifts totaling

\$2 billion, one of the largest endowments in the world among private biomedical research institutions. The endowment resides in a large cash reserve and its ownership stake in American Century. Since 2000, dividend payments by American Century to SIMR have exceeded \$900 million as of May 31.

Q What is the mission of the Stowers Institute?

A The mission of the Institute is to make a significant contribution to humanity through medical research by expanding their understanding of the secrets of life, and by improving life's quality through innovative approaches to the causes, treatment and prevention of diseases.

Q The Stowers Institute operates with a very unique model. Tell us about it.

A There are three particular unique characteristics about the Institute. First is the approach to funding: SIMR is endowment based, rather than relying on grants like most research organizations. That's important because it allows scientists to pursue questions whose answers have a long-term payout, and to focus on conducting research, rather than grant writing. Second is SIMR's heavy investment in technology—about one-third of the scientific budget, which gives their scientists access to the world's most

advanced equipment. Finally, SIMR's way of translating basic discoveries into applications is quite unique: To translate these basic research findings into cures and treatments for the benefit of patients, the Stowers Institute for Medical Research established BioMed Valley Discoveries, Inc., a translational research and development organization in Kansas City, Missouri. The mission of BioMed Valley Discoveries is to improve human health and advance science by addressing unmet medical needs in areas that are considered too early, too risky, or too small for traditional biotech or pharmaceutical companies. They look to SIMR and anywhere in the world to find and source new ideas and opportunities. I know of no other organization like this in the world.

Q In addition to your relationship with the Stowers Institute, I understand you also support LIVESTRONG. Can you elaborate?

A Yes, we support LIVESTRONG in its global fight against cancer in a number of ways. We offer the LIVESTRONG Portfolios to provide investors with a convenient way to take control of their investments while supporting the fight against cancer. Also, for the past seven years, they've been the primary beneficiary of proceeds generated by our annual celebrity golf tournament, the American Century Celebrity Championship. The tournament provides LIVESTRONG with another important stage to generate awareness.

For more information about institutional business development at American Century, contact Vice President Margaret Pierce, who is located in the Boston area. She can be reached at 888-900-1018 or margaret_pierce@americancentury.com.

For information on the Stowers Institute for Medical Research, visit www.stowers.org or for BioMed Valley Discoveries, visit www.biomed-valley.com.



JONATHAN THOMAS

POLICY UPDATE

By JOHN HEFFERNAN

We are fast approaching the close of another federal and state legislative session, and lawmakers at both levels are moving forward a number of MassBio's policy initiatives.

Supreme Court upholds Affordable Care Act

On June 28, the Supreme Court of the United States upheld the federal Affordable Care Act, including the proposed pathway to biosimilars. MassBio will continue to work with the members of the Massachusetts delegation, as well as state and federal agencies to ensure that the law—when finally implemented in 2014—will positively impact patients who are in need of innovative therapies, many of which are made right here. Our focus will continue to be on ensuring federal policy protects innovation and guarantees patient access to the most cutting-edge treatments and cures.

PDUFA reauthorization secured through passage of Food and Drug Administration Safety and Innovation Act (FDASIA)

On July 9, President Barack Obama signed into law the Food and Drug Administration Safety and Innovation Act (FDASIA), which included reauthorization of the Prescription Drug User Fee Act set to expire in September.

We are pleased to report that FDASIA will enhance the development and review of innovative new therapies through increased transparency and scientific dialogue, advancements in regulatory science, and strengthened post-market review. It will also increase the Food and Drug Administration's (FDA) access to external expertise to improve the drug review process.

The enhanced Accelerated Approval pathway will help expedite the development of personalized therapies for patients suffering from serious and life-threatening diseases while preserving the FDA's robust standards for safety and effectiveness.

Final budget includes co-pay assistance and partial repeal of gift ban

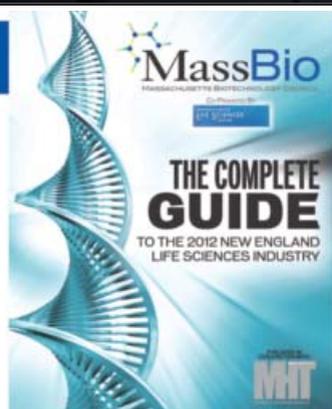
On July 8, Gov. Deval Patrick signed into law the Fiscal Year 2013 budget, which includes language that allows Mass. residents to take advantage of co-payment assistance programs. Until now, Massachusetts was the only state in the national that banned these programs.

The budget also included language to allow certain interactions between companies and physicians that had been barred under the "gift ban" previously enacted.

"Gov. Patrick has, once again, demonstrated his commitment to an industry that is vital to the future of our state's economy, but more importantly to the patients both near and far who await the next breakthrough therapies that will improve their lives," said Geoff McKay, President & CEO of Organogenesis Inc. and Chairman of the Board at MassBio. "Any questions about Massachusetts' pre-eminence in our industry were answered in the final version of the budget, which was thoughtfully prepared by Speaker DeLeo, Senate President Murray, and their dedicated members, and strikes a true balance between bolstering innovation and minimizing barriers to patient access."



Judy Butler of Merck with Speaker Robert DeLeo.



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BioPharm America™

MassBio to host partnering event

MassBio, in partnership with EBD Group, the leading partnering firm for the life sciences industry, will hold the fifth annual BioPharm America™ conference September 19–21 at the Westin Boston Waterfront.

“BioPharm America is a highly productive partnering event, and as the leading advocate for Massachusetts’ life sciences supercluster, MassBio hopes to continue providing value to our member community through engagement with this year’s event,” said Robert K. Coughlin, President & CEO of MassBio.

BioPharm America has become a major hub for engaging new partners in the life sciences industry. The event attracts the world’s top dealmakers from biotech and pharma, as well as leading bankers and VCs. Powered by EBD Group’s sophisticated partnering system, partneringONE®, the event enables delegates

to efficiently start partnerships with companies across the life sciences value chain.

“Boston is a major life science sector, and this partnering event consistently brings together the ‘who’s who’ of professionals from leading companies,” said Carola Schropp, President of EBD Group. “The event continues to grow, due in large part to our collaboration with MassBio and the enthusiasm of their members. Like our other partnering events, BioPharm America is designed to provide delegates with direct access to high level dealmakers from a wide range of companies.”

By posing the question “Who is the best player in the value chain: Is biotech really better at research?” this year’s plenary is intended to spark a lively discussion. The Wednesday afternoon program is split into two tracks—the Business Development track

and the In the Spotlight track.

While the Business Development track is geared primarily toward industry investing strategies, from new trends in pharma/venture funds to financing models for creative exit strategies, the In the Spotlight track focuses on prevailing current topics of interest such as pre-competitive collaborations and emerging markets.

The Thursday keynote “From start-up to commercial company and the challenges in between: Could we do it again today?” will be of special interest to start-up companies, and features panelists from Organogenesis, Genzyme, Alkermes plc and others.

Roundtable discussions on molecular diagnostics, open innovation and infectious disease are also planned.

In 2011, BioPharm America saw more than

950 international biotech and pharma leaders from 588 companies engage in 2,550 partnering meetings. There were 34 countries represented and 760 licensing opportunities posted on partneringONE.

MassBio members will receive an additional discount of \$200 off of registration. MassBio members registering before July 20th will save \$400 (\$200 early bird, \$200 member discount).

Registration information for BioPharm America can be found online at <http://www.ebdgroup.com/bpa>.

Early stage projects, innovative start-ups, established biotechs and midsize pharma companies seeking international partnerships are invited to present. Inquiries should be sent to Christina Kirsch directly at ckirsch@ebdgroup.com.

HOT IN BOSTON

These companies are representative of the quality of innovation and creative business models that characterize the Boston biotech region. Meet with these companies, and many others, at BioPharm America 2012, Sept. 19-21. Excerpted from *partneringNEWS*. For more, visit www.ebdgroup.com/partneringnews.



BLUEPRINT MEDICINES

Can they do it again? Can the same team that developed the kinase inhibitor Gleevec for Novartis, which transformed chronic myeloid leukemia from a fatal cancer into a manageable disease, find other inhibitors?

Third Rock Ventures believes it can, backing the start-up Blueprint Medicines with \$40 million in April 2011.

The Gleevec development team believes it, too. The winners of the prestigious Lasker-DeBakey Clinical Medical Research Award in 2009 for their discovery, Nicholas Lydon, Brian Druker and Charles Sawyers, are scientific co-founders of Blueprint. Lending more than their names, they are actively pursuing the search for therapeutic compounds and combination therapies to target both the molecular aberrations that cause cancer and the emerging resistance mechanisms that make cancers increasingly difficult to treat.



CHRIS VARMA



FORMA THERAPEUTICS

In January this year, Forma Therapeutics announced two conventional agreements for assets spinning out of its innovative discovery platform that aim for high-risk targets but hold high-reward valuations, potentially totaling \$1.4 billion in milestone payments.

Yet Forma is creating a sensation in biotech business development for a trailblazing approach to structured deals by offering assets through a new company, or “newco.” Creating a stand-alone company around an attractive asset allows the pharma partner to acquire that asset while leaving Forma’s discovery platform free to continue exploring novel targets.

Forma CEO Steven Tregay describes the strategy as, “linking an incredibly innovative and efficient drug discovery engine to an equally creative and innovative business structure.”



STEVE TREGAY



GENOCEA BIOSCIENCES

By harnessing the T cell response to pathogens, Genocea Biosciences is developing a fresh approach to vaccine development that creates effective options to prevent or treat infectious diseases, cancers, and autoimmune diseases. “We can unlock T cell responses to pathogens for which there are no vaccines,” emphasized Chip Clark, President and CEO.

Genocea’s new class of vaccines is based upon eliciting T cell responses, thus targeting the pathogens that are known to cause major diseases, including malaria, herpes simplex virus 2 (HSV-2) and chlamydia. In contrast, traditional vaccines trigger humoral (B cell) responses. They are highly effective against pathogens (like measles) carried by the blood, but they do not mount an immune response against cellular pathogens. By making it possible to immunize the population against additional, serious health risks, T cell based vaccines are expected to open a global market worth an estimated USD 34 billion by 2017.



CHIP CLARK

Radio personality, author lends voice to advocacy efforts

KAYE: from Page 8

Stigma in Mental Illness.”

“One thing that helped me as a caregiver was learning as much as I could,” said Kaye. “With any traumatic news, you go through all the stages – denial, grief, anger. With mental illness, you have to add stigma, embarrassment and guilt before you get to acceptance.”

In addition to her commitments as a trainer and professional

speaker, Kaye is also the author of “Ben Behind His Voices: One Family’s Journey from the Chaos of Schizophrenia to Hope,” published last September.

“I wanted to share our story, because I knew how much other stories helped me,” she said. “It’s a personal account of our journey – mine, my daughter’s and my son’s – with resources peppered in. No mother, family, provider or patient can do it alone. We wanted to share the chaos, but also the hope, and

show that success is possible.”

It has been 10 years since Ben was diagnosed and began treatment. He is now taking courses towards an associate’s degree in general education or drama, and has made the Dean’s List seven semesters in a row. He has also kept up a part-time job for the past year.

“He’s beginning to get his life back,” said Kaye. “He has a new sense of purpose, which I think has always been there, but was covered up by these symptoms.”

Sunovion Pharmaceuticals, based in Marlborough, has taken a strong interest in Kaye’s story and is partnering with her to educate caregivers about the need to build a strong therapeutic alliance with healthcare professionals in order to find the right treatment plan for their loved ones with schizophrenia. Kaye has spoken to employees of Sunovion at both its Marlborough headquarters and its office in Fort Lee, N.J. The company specializes in treating disorders of the central

nervous system and respiratory diseases.

In May, Kaye joined Dr. Peter Weiden of the University of Illinois at Chicago to speak to psychiatrists in a session sponsored by Sunovion at the American Psychiatric Association annual meeting.

“I’ve been thrilled to team up with Sunovion and work out how we can help each other and the mental health community, while reaching out to a bigger audience,” said Kaye.



Students from Bellingham High School had a great time shadowing employees at Abbott in Worcester.

LIFE SCIENTISTS FOR A DAY

Students enjoy Shadow Day

BY LAUREN PADOVAN

They toured the Commonwealth's most cutting-edge labs, asked questions of the state's brilliant scientific minds, and networked with potential future employers.

On June 7, students from 15 different high schools visited 14 companies and learned about the broad spectrum of careers in biotechnology at the third annual Statewide Biotechnology Job Shadow Day, organized by MassBioEd.

By giving high school students the opportunity to experience firsthand the daily life of a life sciences professional, MassBioEd hopes to deepen their awareness of the critical contributions being made by biotechnology firms in treating symptoms and curing diseases, ultimately steering them towards futures in the life sciences.

Both MassBio and MassBioEd employees joined in the fun, participating in Job Shadow Day.

While each company created a unique agenda for their visiting delegation, each

student met a mentor he or she was able to witness in action while having the ability to ask questions and build new relationships.

"We have just returned from our fantastic day at Job Shadow. The company volunteers were amazing and so accommodating," one teacher wrote in the anonymous post-event evaluation. "Thank you for this wonderfully valuable opportunity."

Another teacher said, "This trip was especially useful for helping students realize the enormous range of opportunities available in the life sciences."

MassBioEd is closely affiliated with the Massachusetts Biotechnology Council and helps the Council in fulfilling its goals to ensure that more Massachusetts students will pursue life sciences careers, resulting in a pipeline of qualified individuals for Massachusetts biotech companies. Job Shadow Day is one of the most popular programs that helps meet that goal.



Students from Dracut High visit EMD Serono's Billerica facility.

COMPANIES

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Biogen Idec (Cambridge)
Cubist Pharmaceuticals (Lexington)
EMD Millipore (Bedford)
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EMD Serono (Rockland)
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Boston Latin Academy
Quabog Regional High School
Marlborough High School
Assabet Valley Technical School
Revere High School
Danvers High School

Sponsors support STEM education through Golf Classic

BY LAUREN PADOVAN

On Sept. 7, MassBio will return to the prestigious Pinehills Golf Club in Plymouth for the 18th Annual Golf Classic. The tournament will feature 18 holes of golf, as well as a fun networking reception, raffles and an auction. Proceeds help support the Massachusetts Biotechnology Education Foundation's work advocating for and directly funding programs and services proven to build the Massachusetts'

biotechnology workforce.

The Golf Classic would not be possible without the help of generous sponsors, many of whom have supported the MassBioEd Foundation for a number of years. Their dedication allows the Foundation to provide Massachusetts high school teachers with the skills and equipment necessary to teach biotechnology, ultimately aiming to provide the life sciences with a strong workforce in the future.

Veolia Environmental Services, one of the Golf Classic's longest-running sponsors, has been involved with MassBio for 15+ years and has been a proud sponsor of the Annual Golf Classic for just as long.

"While the day is certainly filled with camaraderie, networking and enjoyment, the true testament of success can be evaluated in the programs that the fundraiser supports," said Derek Nelhuebel of Veolia. "MassBioEd's initiatives for

the development and education of our youth are of critical importance to our industry."

Airgas is a favorite sponsor for many Golf Classic participants—you may have seen them supplying their signature dry ice ice cream. For the past six years, they have been an active sponsor of the Golf Classic, considering their support as a natural progression to their work with MassBio and its member companies.

"As active stakeholders of this

industry," said Adam Beck of Airgas, "we realize the need to inspire the next generation to enter this challenging field of biopharma and keep it growing."

We are thrilled to name Veolia and Airgas as sponsors of this year's Golf Classic and thank them for their ongoing support.

Sponsorship opportunities for the 18th Annual Golf Classic are still available! Registration is now open. Visit massbio.org for details.



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RADIO PERSONALITY LENDS VOICE TO ADVOCACY EFFORTS

BY MEAGHAN CASEY

A complex mental disorder, schizophrenia affects nearly 3 million people nationwide. For actress and radio personality Randye Kaye, it only took one diagnosis for her to take action and lend her voice to the national advocacy groups attempting to break the barriers and stigma around the condition.

Kaye's son, Ben, was diagnosed with the disorder when he was 20, though it had been affecting him since his mid-teens.

"At first, I didn't see anything that wasn't just typical adolescence – mood swings, rebellions," said Kaye. "But then it started getting more extreme. He was losing friendships, dropping out of school in the middle of his junior year without a

plan, and becoming more and more isolated."

Kaye took a proactive approach and began consulting psychiatrists and attending meetings at the National Alliance on Mental Illness (NAMI) to become better versed on what her son's symptoms could mean. She enrolled in the NAMI Family-to-Family course, a free, 12-week course for family caregivers of individuals with severe mental illnesses. For the next two years, the family made it their mission to find Ben the right medications and psychiatrist.

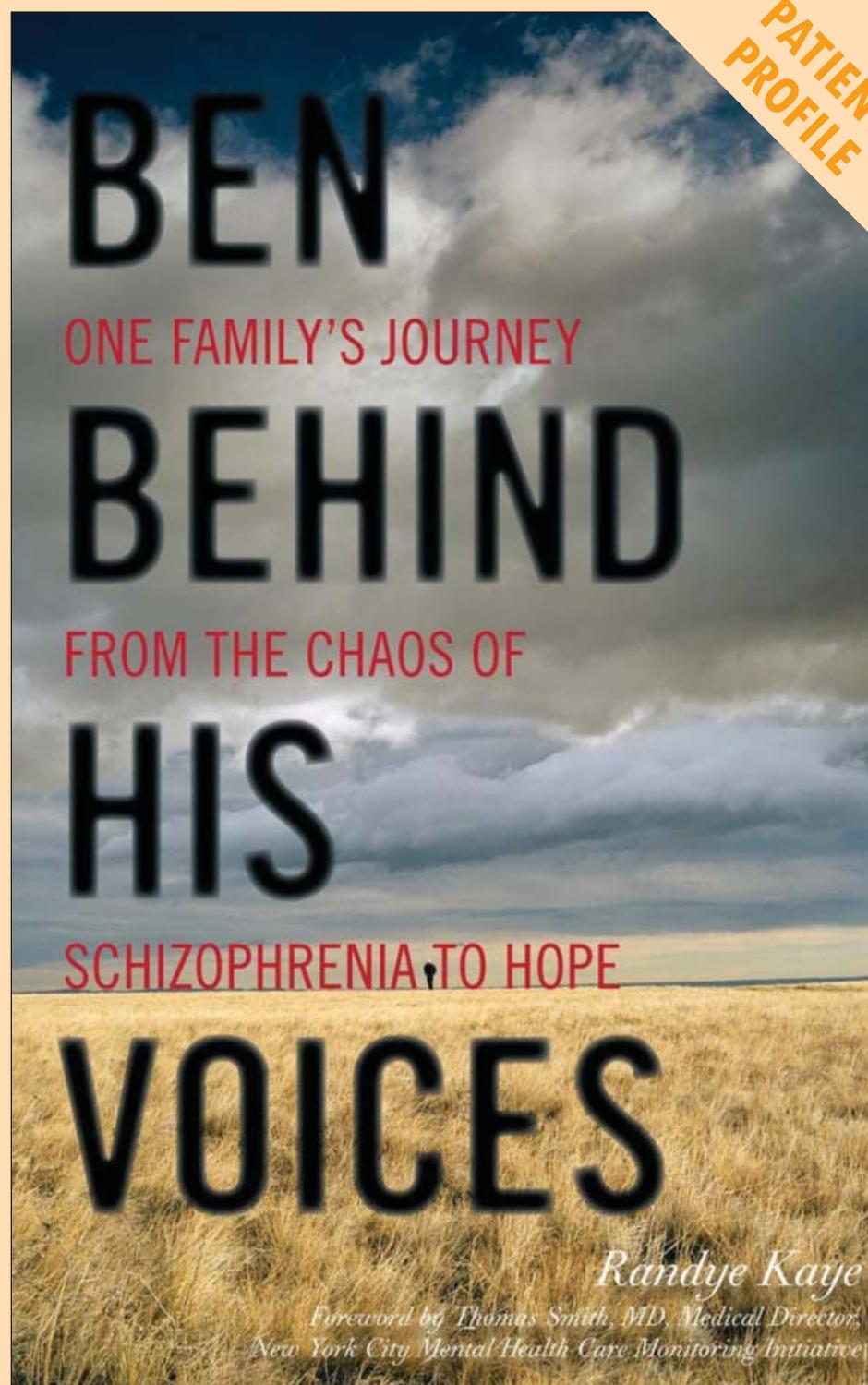
"A lot of it was trial and error, seeing if his symptoms got better or not," said Kaye. "Early detection is a great thing, but it is difficult. We had many years of confusion before the diagnosis. Once we knew it was a brain disorder, we could finally begin treatment. With careful monitoring, the trial and error paid off at last. The more treatment options that were available, the more hope we had."

Kaye later became certified as a state trainer for the NAMI Family-to-Family program in Connecticut. She speaks frequently to audiences about the process of coping with the challenges when mental illness strikes a loved one. She is also on the NAMI teaching team for Provider Education, an educational series for professionals in the field, and is a diversity trainer for the Anti-Defamation League. Previously, Kaye was a noted on-air personality and news director for a top-rated Connecticut radio station from 1992-2005, and continues to work for the NPR affiliate WSHU. She hosted the talk show "Issues and Answers" on Connecticut TV, and recently appeared on the educational DVD, "Dealing with

See **KAYE** Page 6



Randye Kaye, above, wrote *Ben Behind His Voices* to help share her experience as a mother of a child with schizophrenia.



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