

Diabetes' Elusive Cure

BILL AND DEE BREHM'S LANDMARK \$44 MILLION GIFT WILL "ACCELERATE THE PACE"

When will type 1 diabetes be cured?

For more than 80 years, regular injections of insulin have made it possible for type 1 patients to cope with the disease. A few, like Dee Brehm of McLean, Virginia, have lived into their 70s with type 1 diabetes (formerly "juvenile diabetes") without developing the complications usually expected. However, that's very rare. Moreover, multiple insulin injections every day present the constant peril of unpredictable plummeting of blood sugar level that can produce dangerous insulin shock. While science and industry have introduced better tools to help patients control their blood sugar more comfortably, insulin is still the only therapy for type 1 diabetes. Science still does not know how to prevent or cure type 1 and its potentially devastating complications. Type 1 diabetes thus remains a serious chronic disease that challenges both the patient and every member of the patient's family.

Diabetes' grim scenario has been for many decades the impetus for the search for prevention and cure, involving dedicated researchers around the world. Now, Dee Brehm and her husband, Bill, want to strengthen the work of those researchers. Their \$44 million gift to the University of Michigan Medical School to create a new center for type 1 research and analysis is aimed at accelerating the pace of type 1 diabetes research. Their gift is the largest in the school's history and the second largest for the university.

Bill Brehm, a scientist himself, knows full well that no one can schedule discovery. He also knows that the research pathways to a cure will have many branches and loops. However, it is clear

Photo: D.C. Goings



Bill and Dee Brehm

"Start with the universe; connect the apparently unrelated facts; defy the conventional wisdom; become curious, naive and courageous; foster unity of thought, purpose and spirit."

—Bill Brehm

that the search is also an administrative and business process that includes much more than research, and Brehm is convinced that better understanding of that process will reveal ways to quicken the pace and lead to earlier translation of research results into effective and available therapies.

Born in Dearborn, Bill Brehm received his bachelor's and master's degrees from the U-M, concentrating in math and physics. In 1952 he began a career in advanced systems development in the California aerospace industry. In 1964 he moved into defense-related government service, eventually serving three presidents (Johnson, Nixon, and Ford). In 1978, convinced of the huge potential of information science and systems analysis to solve major management problems, he helped found SRA International in Fairfax, Virginia. SRA serves government clients by providing complete solutions to complex system problems. Brehm now serves SRA as chairman emeritus, and devotes a major portion of his time to the non-profit world.

As Dee Brehm tells the story, their determined search began one evening five years ago. She was in the kitchen preparing dinner when her husband appeared and asked in his quiet way, "What may I do to help you?" "I don't know where it came from," she says as she recalls that defining moment, "but I looked at him and said, 'You can find a cure.' He paused for a moment, and then replied simply, 'Okay...'"

For Bill Brehm, whose career spans engineering systems development, defense preparedness, crisis management, and the entrepreneurial challenge of building a company in the highly competitive information technology business arena, his wife's challenge was not one he took lightly. Together, the Brehms began an odyssey to discover more about diabetes research and to develop a personal plan of involvement. Four years of persistent inquiry went into their development of a concept proposal. Their journey ultimately led them to Michigan. The university responded with an ambitious plan that amounts to a frontal assault on the disease.

The Brehms' involvement will not stop with their \$44 million gift. As an example, Bill Brehm suggested that the university begin by bringing an eclectic group

together to develop and discuss ways of accelerating the pace of the search for type 1 diabetes prevention and cure. More than 90 participants from across the country gathered in Ann Arbor March 23-25 to generate and distill guiding ideas. The meeting, held in a "charrette" interactive format, included several of the nation's top diabetes researchers as well as leaders from industry, information science, engineering, private and government funding entities, patients, and the U-M faculty and senior management team. Together this group represented the thousands of players in the complex search and decision process. Brehm told the participants that he believes that an essential first step in the University's initiative is to develop a far better understanding of the roles of these players — and how those roles interact and fit together. To facilitate that kind of inquiry he emphasized that the new center will incorporate modern systems analysis and robust medical informatics

to help inform and enhance the creative work of the researchers dedicated to this mission.

Brehm also admonished the charrette participants to approach their task with open minds: "Start with the universe; connect the apparently unrelated facts; defy the conventional wisdom; be curious, naive and courageous; and foster unity of thought, purpose and spirit. We must not allow this moment to be lost to the conventional wisdom."

For Dee Brehm, an Ypsilanti native who has lived with diabetes since 1949, the small victories of beating diabetes one day at a time have been a part of her life for 55 years. But she dreams of a larger victory of protecting all people, young and old, from the discomfort, fear, and devastating experience of type 1 diabetes, now and in the future — a dream she would love to see fulfilled in her lifetime. [m](#)

