

Maxwell Finland Award Recipient 1992 F

or almost four decades, from World War II through the 1970s, Mary Woodard Lasker was a driving force in developing public sup-

port for medical research. This was hard going, for in the 1940s the idea that the federal government should enlarge its support of medical research was new and controversial.

Vannevar Bush in his 1945 report, "Science: The Endless Frontier," had outlined the challenges and recommended federal funding to encourage medical research. But acceptance of this proposition and how this research was to be directed was not clear. Into this arena, concerned about the way government-sponsored medical research might be conducted, came Mary Lasker, the wife of Albert D. Lasker, whom she married in 1940. At that time Mr. Lasker was President of the highly successful Chicago advertising firm, Lord and Thomas, and interested in supporting the sciences. In the 1930s he gave the University of Chicago \$1 million to establish a medical research institute.

After his marriage this interest became more sharply focused. Mrs. Lasker held the enthusiastic conviction that biomedical science could be marshaled to alleviate ills, even cure deadly disease and improve the health of the American people.

Given the nature of science and the character of scientists, this was hard going. Scientists look at disease as a problem to be solved. Mrs. Lasker looks at disease as an enemy.

In 1942, Mr. Lasker closed his firm and created the Albert and Mary Lasker Foun-

dation with the aim of raising public awareness about the major killing and crippling diseases and the need for increased research funding to conquer them. Over the years the Foundation has become an impressive resource for those actively interested in the support of biomedical and health research.

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Mrs. Lasker had already had several years' experience working with voluntary health organizations. One of her particular interests was cancer, stimulated in part by the death of her cook from the disease. She reorganized the largely professional association then called the American Society for the Control of Cancer, and, at the suggestion of her husband, renamed it the American Cancer Society. At that time, in 1943, the Society allocated no funds for research. Two years later, after organizing a successful fund-raising campaign, the organization spent \$960,000 for cancer research. One of the Foundation's offshoots, the National Health Education Committee, publicized the ways in which public support for medical research pays off in prolonging lives and saving income. For many years, the Committee's authoritative and regularly updated source book, *Facts on the Major Killing and Crippling Diseases in the United States,* provided the grist for the Lasker Foundation's campaigns.

In 1944, the Laskers created the Albert Lasker Medical Research Awards to encourage and honor physicians and scientists for outstanding achievement in medical research and public health administration. These awards have become among the most prestigious honors in biomedical research in the U.S. No less than 49 Lasker awardees have gone on to win Nobel Prizes.

However, the Laskers recognized that no matter how successful private foundations were at raising money and distributing it for scientific research, it would never be enough to meet the challenges that lay before them. In practical terms, this meant tapping public funds, which in turn involved alerting the public to the need.

Instead of using limited funds raised by private donations to support small, if

"She is never frivolous, always purposeful. She has a keen understanding of the processes of government, a first name acquaintance with most key officials, and a refined sense of timing." worthwhile, research projects, they argued that it was better to spend that money to raise virtually unlimited funds by encouraging Congress and the Executive Branch to mount a national research effort for the medical sciences.

With the help of friends like Mrs. Florence Mahoney, whose husband was an executive of the *Miami Daily News*, Mrs. Lasker urged Congress to hold hearings on the issue of biomedical research. She was instrumental in lining up scientists, such as the Houston surgeon Dr. Michael E. DeBakey, to testify before Congress on the need for federal support for biomedical research. Today, testimony from concerned citizens is routine on Capitol Hill, but at that time it was an innovation.

Mrs. Lasker was acutely aware that she was neither a scientist nor an elected or appointed official. She did not pretend she knew the answers to the dread diseases. She let the scientists tell the story.

She became a master at orchestrating publicity that no congressman or administration official could safely ignore. For instance, in 1971 during the debate in Congress on the Conquest of Cancer Act, Mrs. Lasker suggested to the syndicated columnist Ann Landers that she write a column urging support for the legislation.

In April a Landers column appeared that said, "if enough citizens let their senators know that they want this bill passed—it will pass." The response was overwhelming. Senators reported receiving thousands of letters urging that the bill be passed. Later that year Senator Alan Cranston of California reported that, after the column appeared: "On that one bill alone I received 60,000 letters in a five-week period."

Other senators had similar responses. Senator Williams of New Jersey got 11,500 letters by the end of the first week in May. Senator Pearson of Kansas got 7,000 and Senator Byrd of West Virginia got 3,000 all supporting the measure. Later estimates put the total deluge of mail at close to one million. There is little question that such widespread public support for the bill played a major role in its becoming law.

Over the years Mrs. Lasker refined her techniques of mixing scientists, congressional forces and government leaders in the cause of health. Personally avoiding the limelight, she was for years a consummate broker in generating public support for biomedical research.

Nevertheless, Mrs. Lasker's presence and zeal for her causes was always felt by those most directly affected. Inevitably this raised difficulties and sometimes sharp differences of opinion on many issues. She was criticized, for example, for her emphasis on specific categorical diseases without regard to the scientific problems involved. But even her critics concede her power as an effective mobilizer of public opinion and political will.

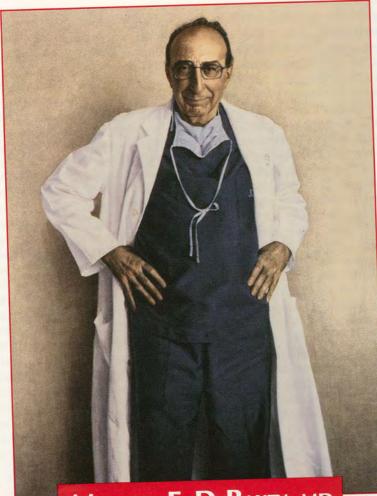
Dr. Michael E. DeBakey, long a spokesman for one of Mrs. Lasker's major interests, heart disease, describes her as "a woman with a quick mind, able to focus on the central issues and to sense what combination of talents must be brought together to solve a problem. Mrs. Lasker has moved mountains for medical research and human health when others have failed."

"What she did was to focus on an issue and by so doing muster support for it," says Dr. John F. Sherman, deputy director of the National Institutes of Health during the years when Mrs. Lasker and her friends were at their most active. "Of course she didn't do it alone," he adds. "The then NIH director, Dr. James Shannon, exerted a powerful influence on two very important congressional leaders, Lister Hill in the Senate and John Fogarty in the House. But nevertheless there is today a gap here that has not been filled."

In his book, Cancer Crusade, an account of the forces that led to the passing of the 1971 National Cancer Act in which Mary Lasker played a seminal role, Dr. Richard Rettig astutely analyzed her influence.

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MICHAEL E. DEBAKEY, MD

Maxwell Finland Award Recipient 1992 S everal years ago a popular magazine headlined an article about modern surgery: "If They Can Operate, You're Lucky." The simple message was that if the disorder is amenable to surgical intervention, cure is likely.

Although no single individual can take credit for the development of today's lifesaving surgical miracles such as heart valve and blood vessel replacement and organ transplantation, one of its unquestioned leaders is Dr. Michael E. DeBakey, Chancellor and Chairman of the Department of Surgery, Baylor College of Medicine, in Houston, Texas, and Director of the DeBakey Heart Center, established by Baylor in 1985 for research and public education in the prevention and treatment of heart disease.

In 1932, while still a medical student at Tulane University in New Orleans, Dr. DeBakey devised the roller pump which was later used by Dr. John Gibbon in the first successful heart-lung machine. The device takes over the functions of heart and lungs during many cardiac operations and without which today's open heart surgery and cardiac transplantation would be impossible.

After graduation in 1937, Dr. DeBakey joined the Tulane faculty. In 1942, he volunteered for military service and was subsequently named Director of the Surgical Consultant's Division in the Army Surgeon General's office. During his military service, he helped design the portable hospital units later known as MASH. In 1945, he received the U.S. Army Legion of Merit. After World War II, he returned to Tulane as Associate Professor of Surgery. In 1948, he moved to Baylor as Chairman of the Department of Surgery. During the 1950s Dr. DeBakey developed methods of repairing blood vessels with preserved human vascular tissue. Later he devised synthetic blood vessel materials initially made of Dacron and later of a Dacron-velour combination. He discovered that the combination promoted the natural development of a smooth intimal lining to the vessel that reduced the risk of blood cell damage and the formation of blood clots. He used these to replace atherosclerotic arteries and to repair aneurysms-swellings in the blood vessel wall which can "blow out" like a bursting tire.

> In his career Dr. DeBakey has invented or devised more than 70 different surgical instruments, devices or equipment for use in cardiovascular surgery and the management of patients.

What made these procedures successful was his observations, on the basis of angiography, that in patients with occluded or narrowed arteries there were specific patterns of localized lesions depending on where they occurred: in the coronary arteries, the aortic arch, the aorta itself, or in the lower aorta and femoral bifurcation.

That arterial obstructions were localized with normal vessels above and below the lesions was a new concept when Dr. DeBakey first reported this in the early 1960s. The knowledge made surgical treatment of obstructive arterial disease feasible. The contribution won Dr. DeBakey an Albert Lasker Clinical Research Award.

Together with Baylor virologist Dr. Joseph Melnick, Dr. DeBakey has reported a series of studies providing a basis for investigation of the role of viruses in human atherosclerosis.

From this, as well as for other reasons, it is clear that the formation of atherosclerotic plaques cannot be blamed solely on high fat diets as some would have it.

In over four decades at Baylor, Dr. DeBakey performed many pioneering surgical procedures. In 1953, he did the first carotid endartarectomy, removing the diseased segment of the artery and thus improving the blood supply to the brain. This opened a new way to preventing strokes. And in 1964 he did the first successful aortocoronary bypass using a vein taken from the patient's leg to supply blood to the ailing heart.

In 1966, Dr. DeBakey was the first to use a type of artificial heart. It temporarily replaced the heart's main pumping chamber, the left ventricle. The patient was a Mexican woman with severe heart disease as a result of rheumatic fever. After surgery to replace two damaged heart valves, the pump was used for the next ten days until her own heart pump could resume its normal function.

One result of this was to re-stimulate interest in a totally replaceable artificial heart-a goal that still lies in the future. Dr. DeBakey believes that the main use for such a device is to help the patient awaiting a heart transplant who would otherwise die.

In addition to innumerable honorary degrees and prestigious medical and scientific awards, Dr. DeBakey has received the Presidential Medal of Honor with distinction, the highest award given to a civilian, conferred by President Johnson in 1969, and the National Medical of Science, presented by President Reagan in 1987.

In his career Dr. DeBakey has invented or devised more than 70 different surgical instruments, devices or equipment for use in cardiovascular surgery and the management of patients. There is little doubt he could have been a wealthy man today had he wished. But he draws only his salary from the University. "I make a good living," he is quoted as saying. "But I'm not in medicine to make a personal fortune."

Disciplined research underlies all these practical accomplishments, so it follows that Dr. DeBakey is a strong proponent of basic biomedical research as the key to developing better treatments for disease. He was enlisted by Mary Lasker to testify repeatedly before Congress in favor of adequate support of medical research through the National Institutes of Health (NIH).

In 1949, before going to Baylor, he was a member of the Hoover Commission's task force on medical services. He led the movement to establish the National Li-

"My parents, with their keen intellects, natural curiosity and high standards, were superb models because they sought excellence in everything they did. Anything worth their time, they felt, was worth doing well. They inspired and encouraged me... to go a little beyond what is expected of you." Although no single individual can take credit for the development of today's life-saving surgical miracles such as heart valve and blood vessel replacement and organ transplantation, one of its unquestioned leaders is Dr. Michael E. DeBakey.

brary of Medicine, and in 1964 headed the commission on Heart Disease, Cancer and Stroke appointed by President Lyndon Johnson.

Noting the lag between the development of new lifesaving technologies and their adoption by physicians in general, the Commission's report, among many other recommendations, called for the establishment of intensive care centers for heart disease and community centers for diagnosis and emergency care. Dr. DeBakey has served an unprecedented three terms on the Advisory Council to the National Heart, Lung, and Blood Institute at the NIH.

A high NIH official remembers that no matter where he was, out of the country or in the operating room, Dr. DeBakey always responded promptly when asked for support or advice on NIH policies or appropriations. "It's truly remarkable. I have yet to call him when he didn't reply almost immediately. He is the only person in my experience who could be absolutely relied on to help you in a pinch."

Dr. DeBakey attributes any success he has had to the example set by his parents. His father, Shaker Morris DeBakey, came to the U.S. from Lebanon as an adolescent. By the time Michael, the oldest of the five children, was in high school, his father owned a drug store in Lake Charles, Louisiana. Interestingly, it was his mother who taught him as a child how to sew, a skill he used to advantage as a surgeon.

"My parents, with their keen intellects, natural curiosity and high standards, were superb models because they sought excellence in everything they did. Anything worth their time, they felt, was worth doing well. They inspired and encouraged me in that philosophy. I think that had a great deal to do with a drive for excellence and to make that extra effort, to go a little beyond what is expected of you.

"Our parents helped us discover the delight of learning, and they often made our new knowledge more significant by relating it to some interesting story in their own lives or to some current or historical event," says Dr. DeBakey.

Surgery is often regarded as impersonal. The patient after all is lying anesthetized on the operating room table, totally dependent on mechanical equipment. But time and again, those who know Dr. DeBakey have commented on his personal touch with his patients. "I get involved with my patients," he says. "I try to learn as much as I can about them and their families. The family is as essential to a successful outcome as the surgeon."

The words echo those of another great healer, Dr. Francis Peabody who, in 1927, when Dr. DeBakey was still a student at Tulane, wrote that "one of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient."

To which Dr. DeBakey adds: "You have to look at each patient as an individual and not just at the disease he has. If you're not concerned about the patient, you're not going to have the same drive to make sure he can get well."