

This Year's Nobel Prize in Medicine



The Shameful Wrong That Must Be Righted

This year the committee that awards The Nobel Prize for Physiology or Medicine did the one thing it has no right to do: it ignored the truth. Eminent scientists, leading medical textbooks and the historical facts are in disagreement with the decision of the committee. So is the U. S. Patent Office. Even Alfred Nobel's will is in disagreement. The committee is attempting to rewrite history.

The Nobel Prize Committee to Physiology or Medicine chose to award the prize, not to the medical doctor/research scientist who made the breakthrough discovery on which all MRI technology is based, but to two scientists who later made technological improvements based on his discovery.

WHAT EMINENT SCIENTISTS AND AUTHORS SAY

"I was stunned to learn that the Nobel Committee has apparently become so political that it is willing to overlook documented evidence (1971) for the first discovery of the substantial T1 and T2 tissue differences discovered by Damadian, which have become the foundation of all NMR imaging." — John Throck Watson, Ph. D., Professor of Biochemistry and Chemistry, Michigan State University, East Lansing, Michigan

"We are perplexed, disappointed and angry about the incomprehensible exclusion of Professor Raymond Damadian, M.D., from this year's Nobel Prize in Physiology or Medicine. MRI's entire development rests on the shoulders of Damadian's discovery of NMR proton relaxation differences among normal and diseased tissues and his proposal of external scanning of NMR relaxation differences in the human body, published in *Science* in 1971" — Eugene Feigelson, Senior Vice President for Biomedical Education and Research, Dean of the College of Medicine, Distinguished Service Professor, SUNY Downstate Medical Center

"Egg on the Nobel for Medicine's face." — V. Adrian Parsegian, Ph.D., Chief, Laboratory of Physical and Structural Biology, National Institute of Child Health, National Institute of Health, Bethesda, MD

"Please let me know what I can do, along with your many friends, to mark this error as such, and to set the record straight in the minds of the millions of patients who benefit daily from your invention. I expect to spend the rest of my life telling the true story on your behalf." — David D. Stark, MD, FACR, co-author, the definitive MRI textbook, *Magnetic Resonance Imaging* (Mosby, Third Edition, 1999)

"Just a note to express my deep disappointment in learning of the Nobel committee's failure to recognize the real pioneer of MRI. . . Millions of people are living healthier lives because of your seminal research and subsequent development of MRI." — James Mattson, co-author of the book *The Pioneers of NMR and Magnetic Resonance in Medicine* (Bar-Ilan University Press, 1996)

". . . the initial concept for the medical application of NMR, as it was then called, originated with the discovery by Raymond Damadian in 1971 . . ." — *MRI From Picture to Proton* by McRobbie, Moore, Graves and Prince (Cambridge University Press, 2003)

WHAT THE HISTORICAL FACTS SAY*

1969 — Proposal by Dr. Damadian for first time by anyone of an MR (magnetic resonance) body scanner.

1970 — Damadian makes the discovery that makes the MR scanner possible. He discovers a dramatic difference in the MR signal between cancerous and normal tissue, proving Damadian's scanner concept is achievable. For the first time in history a radio signal that originates inside tissue (the MR signal) is discovered that can monitor tissue from outside the body and be used to hunt down cancers. Damadian also discovers marked differences in the same signals among normal tissues (called their T1 and T2 relaxations), so that all body tissues can now be seen with greater clarity.

March 1971 — Damadian's article about his discovery of the MR cancer signal is published in the journal *Science*.

Spring 1971 — Basic MR focused spot-scanning method proposed by Damadian.

Sept. 1971 — Lauterbur cites Damadian's 1971 *Science* paper in his notebook entry, establishing it as "prior art." Lauterbur also proposes using a magnetic gradient to obtain a projection in one dimension but the method cannot achieve a scan using only one dimension.

March 1972 — Damadian files for first MR scanning patent with the U.S. Patent Office, using his discovery of the cancerous radio signal (T1 and T2) as a means to detect cancer. The patent also includes the first MR scanning method that works.

Oct. 1972 — Lauterbur invents a method to achieve a 2-dimensional scan (image) of two 1mm test tubes. The required 3-dimensions for body scanning are supplied subsequently by others.

March 1973 — Lauterbur's 2-D paper is published in *Nature*. He avoids citing Damadian's "prior art" publicly, explaining later to a reporter that he didn't have enough room.

1974 — Garroway, Grannell and Mansfield publish a method for a 3-dimensional scan.

1977 — Damadian and co-workers, Goldsmith and Minkoff, build the first MR scanner, which they call Indomitable, and achieve the first image of the human body using the scanning method of Damadian's 1972 patent.

1980 — Damadian and the company he starts, Fonar Corporation, introduce the first commercial MRI scanner.

1997 — High Court on U. S. Patents and U. S. Supreme Court enforce Damadian's 1972 patent, affirming his priority over Lauterbur and asserting that all MRI scanners use Damadian's T1 and T2 to create images as per Damadian's 1970 discovery.

WHAT THE U.S. GOVERNMENT SAYS

United States Supreme Court Supreme Court affirms High Court on Patents decision enforcing Damadian's original 1972 MR scanning patent.

President of the United States In 1988 President Ronald Reagan awarded the prestigious National Medal of Technology jointly to Raymond Damadian and Paul Lauterbur "for their independent contribution(s) in conceiving and developing the application of magnetic resonance technology to medical applications including whole-body scanning and diagnostic imaging."

United States Patent Office Raymond Damadian, creator of the MR scanning technology, is inducted in 1989 into The National Inventors Hall of Fame of the United States Patent Office.

Smithsonian Institution First MRI scanner, built by Raymond Damadian and co-workers, is placed into the Smithsonian Institution in 1989.

WHAT ALFRED NOBEL SAID

In his Last Will and Testament, Alfred Nobel bequeathed prizes in medicine to the person who "... shall have made the most important **discovery** within the domain of physiology or medicine. . ." He specifies only "discovery" and **does not allow** for techniques or inventions that exploit the discovery, as he does in chemistry and physics. Unfortunately, techniques are the only things the awards in medicine are to be given for this year. So the Nobel committee has violated Alfred Nobel's last will and testament.

WHAT THE NOBEL COMMITTEE SAID

The award for medicine in the year 2003 is to go to Paul Lauterbur and Peter Mansfield "for their discoveries concerning magnetic resonance imaging." This statement is a deliberate misrepresentation to avoid a challenge based on Nobel's will. These men did not make medical discoveries as defined by Nobel. Dr. Damadian made the discovery — that cancer tissue and normal tissue have dramatically different signals that enable them to be detected by magnetic resonance (MR).

Obviously, inexcusable disregard of the truth has led the committee to make a decision that is simply outrageous. The Nobel charter allows for three people to be named for the prize. There is no excuse whatever to exclude Dr. Raymond Damadian.

The essence of science is allegiance to the truth. The last institution that should disregard the truth is the one that considers itself the arbiter of scientific achievement.

The Nobel Prize Committee for Physiology or Medicine has disgraced itself. The only way to right this wrong is for the committee to correct its error.

*All facts are public record. Details available on request. Contact D. Culver, 631-694-2929. Fonar Corp.

WHAT CAN BE DONE?

You are encouraged to add your voice to the many distinguished physicians, scientists and authors who are expressing their outrage at this decision.

Write to the Nobel Prize Committee for Physiology or Medicine to assure that this shameful wrong is righted before the awards are presented in December.

TO: The Nobel Prize Committee for Physiology or Medicine

Dear Members of the Nobel Committee: The TRUTH must have a place. I/We believe this year's Nobel Prize for Physiology or Medicine should include Dr. Raymond Damadian.

Name _____

Address _____

City _____ State _____ Zip Code _____

Mail to: The Nobel Committee for Physiology or Medicine Nobel Forum, Box 270 SE-171 77 Stockholm, Sweden E-Mail to: secre@mednobel.ki.se
Or call the Committee at 011-46-8-585-823-44 • 011-46-8-662-64-31 • 011-46-8-51-77-45-00