

April 25, 1978

News

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*****Dallas professor to receive national gastroenterology award for research accomplishments.

DALLAS--Dr. John M. Dietschy, professor of internal medicine at The University of Texas Southwestern Medical School, won the 1978 Distinguished Achievement Award of the American Gastroenterological Association for his contribution to better understanding of the body's absorption processes.

Dr. Dietschy will receive the award, which includes an honorarium and certificate, on May 23 during the annual meeting of the association in Las Vegas, Nev.

The honor was recommended by a select committee appointed by the AGA's governing board, for "major specific accomplishment in gastroenterology." Dr. Dietschy will be the 10th recipient in the history of the award, and the second faculty member at UT Southwestern to receive it.

Dr. John S. Fordtran, chief of gastroenterology at Southwestern and himself a winner of the Distinguished Achievement Award in 1971, hailed Dr. Dietschy's selection "because of the scientific merit of his research in the last five years. He has clarified a very fundamental concept of transport, the mechanisms whereby all sorts of food substances get absorbed across the small and large intestine."

He said Dr. Dietschy's work has had "a tremendous impact" on other scientists beyond the field of membrane transport. "His findings have importance in all fields of biology and medicine," Dr. Fordtran said, "not only in the gastroenterological tract but in the kidney, stomach, bladder--all organs that absorb or secrete."

Dr. Dietschy will lecture at the AGA conference on his findings, which have re-ordered scientific thinking on the mechanisms controlling transport, or absorption, by the intestines.

"In the past," Dr. Dietschy explains, "most interest in the molecular absorption process concentrated on how fast those molecules move across membranes. Now, it appears that it may not be the cell membranes themselves that limit the uptake of molecules, but the key factors may be the 'unstirred layers'--coatings of water and mucus that line the membrane."

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His studies have shown that the rate at which food molecules move across these water barriers is much slower than across intestinal membranes, apparently confirming that the "unstirred layers" form a roadblock to absorption of such substances as dietary fats. Thus, Dr. Dietschy says some disorders of absorption may be explainable "in terms of changes in the thickness of the unstirred layers rather than the cell membranes."

His findings have importance in understanding previously unknown causes of digestive dysfunction, such as may occur in diabetes, collagen disorders and certain neurological diseases, and after some forms of surgery.

Much of the absorption data derived from past research may contain errors because of failure to take the unstirred layers into account, Dr. Dietschy notes. Cholesterol absorption in particular, he says, appears fully dependent on the characteristics of this layer.

And the basic scientific principle involved is widely applicable to all molecular movement where a diffusion barrier exists, Dr. Dietschy observes. The concept is being put to work in studies of the liver, of glucose absorption, of movement of blood into various body tissues, and others.

The Dallas professor has received numerous other honors for his studies. He is a consultant to the metabolism study section of the National Institutes of Health and has served as chairman of the NIH gastroenterology research group. He has served on editorial boards of seven major scientific journals, including the Archives of Internal Medicine, Gastroenterology, and the American Journal of Physiology.

Dr. Dietschy has contributed chapters to two medical textbooks on physiology and has authored or co-authored some 70 research papers on his findings. A graduate of Washington University School of Medicine in St. Louis, he has been on the Southwestern faculty since 1965 and has been professor of internal medicine since 1971. He is also associate director of the school's Program Project in Liver Diseases.

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