

August 23, 1982

NEWS
The University of Texas Health Science Center at Dallas
5323 Harry Hines Boulevard Dallas, Texas 75235 (214)688-3404

CONTACT: Ann Williams
Office: 214/688-3404
Home: 214/375-6043

***Diabetes researcher to receive international award.

DALLAS--Dr. Roger Unger, professor of Internal Medicine at The University of Texas Health Science Center at Dallas, will be honored in Nairobi Nov. 17 by the International Diabetes Federation and the American Diabetes Association.

As recipient of the first Solomon Berson Award, Unger will be honored for his discovery that glucagon is an important hormone and that an excess of the hormone glucagon is one of the causes of diabetes. The award is to be given by the two organizations at their triannual meeting in honor of one of the developers of the first radioimmunoassay test--that for insulin. Berson and Rosalyn Yalow at the Bronx Veterans Administration Hospital developed the test together. And after Berson's death, Yalow received the Nobel Prize in Medicine for their work.

Essential in Unger's work on glucagon and diabetes was the radioimmunoassay test for glucagon, the second of hundreds of radioimmunoassays to be developed.

"We had previously developed an unsatisfactory immunoassay for glucagon, but we had been unable to iodinate glucagon. Berson knew how to iodinate insulin, so we went up there to learn how to iodinate glucagon," says Unger. "He told us not to bother because 'you can't get glucagon antibodies'. But we told him to teach us anyway because we knew we already had glucagon antibodies. He was delighted to learn that he had been wrong."

Unger's first paper on the radioimmunoassay for glucagon came out in 1959, a few months before the Yalow and Berson paper on the insulin assay. "But, of course, we gave them the credit they deserved for the development of the first radioimmunoassay. Through the years we have benefited a great deal from our association with the Bronx VA and we still do," says Unger.

Unger and his co-workers at Southwestern Medical School showed that diabetes is not a single hormone disorder caused by lack of insulin alone but is actually a two-hormone disease involving an excess of glucagon as well. They have also demonstrated that when glucagon levels are suppressed in diabetic patients by a hormone called somatostatin, the blood sugar levels drop dramatically.

Diabetics experience ups and downs in their blood sugar levels that insulin therapy alone does not correct. Normally, insulin turns food into usable glucose (sugar), and glucagon stimulates the liver to produce glucose that's needed between meals and during exercise. But in a diabetic, glucagon does not shut off. Even more sugar is pumped into the system, and this compounds the irregularity.

Unger says the eventual development of a new treatment to reduce glucagon levels or block its action would give diabetics a more normal blood sugar balance at all times. It is hoped that this would help prevent the tissue damage that some diabetics suffer.

(over)

The distinguished researcher is a senior medical investigator at the Dallas Veterans Administration Medical Center. He has previously received the prestigious Claude Bernard Medal, the highest award given by the European Association for the Study of Diabetes; both the Banting Medal and the Lilly Award of the American Diabetes Association; the David Rumbough Jr. Memorial Award for Scientific Achievement of the Juvenile Diabetes Foundation and the Veterans Administration's Middleton Award. He has received honorary doctorates from the University of Liege, Belgium, and the University of Geneva.

#

DISTRIBUTION: AA, AC, AG,SL.

100-21111-1000
100-21111-1000
100-21111-1000