



New national center to investigate sugar's role in alcoholism, cancer

FOR IMMEDIATE RELEASE

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BLOOMINGTON, Ind. -- The National Institutes of Health announced today (Dec. 15) it will provide Indiana University Bloomington chemist Milos Novotny and colleagues in the Department of Chemistry, the School of Medicine and the School of Informatics with \$3.2 million over three years to establish a new National Center for Glycomics and Glycoproteomics. The NIH award adds to an existing \$2 million grant in support of IUB glycomics research from the Indiana 21st Century Research and Technology Fund.

If all of this sounds pretty sweet, it's because sugar is involved. Many of Novotny's ongoing research projects investigate the attachment of sugars to large molecules inside the human body. These sugars perform a variety of functions. Some sugar chains add functionality to biological molecules or act as "tags" that put the body's immune system at ease. Other sugar chains even appear to play a role in alcoholism and some types of cancer.



Milos Novotny is a distinguished professor of chemistry and holds the Lilly Chemistry Alumni Chair at IU Bloomington.

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Glycomics is the general study of these sugar chains, while glycoproteomics examines differences in the way these sugar chains are attached to proteins.

Center staff will develop new technologies that improve the ability of scientists to investigate biological sugars, allowing a better understanding of sugar biology. Staff will also facilitate collaborative investigations of glycoprotein markers associated with cancer and alcoholism, endocrinology-centered studies including fertilization, and comparative research involving plants and animals.

The NIH grant is part of an \$18.2 million initiative by the National Center for Research Resources to create two "resource centers" for new biomedical technology. The IUB resource center will be more basic research-oriented, taking advantage of IU Bloomington's strengths in analytical chemistry, biochemistry, proteomics, glycomics and glycoproteomics. The other \$15 million will go to Brigham and Women's Hospital of Boston to establish a medical research and treatment center that specializes in medical imaging. NCRR is part of the National Institutes of Health.

Novotny is a distinguished professor of chemistry and holds the Lilly Chemistry Alumni Chair at IUB. Co-investigators include David Clemmer, James Reilly, Steve Jacobson, Randy Arnold and Yehia

Mechref (IUB Department of Chemistry), Haixu Tang (IU School of Informatics) and Robert Hickey and Meei-Huey Jeng (IU School of Medicine). Collaborators include Linda Malkas, William McBride and J.-T. Zhang (IU School of Medicine), Thomas Kaufman (IUB Department of Biology), Karel Bezouska (Charles University, Prague, Czech Republic) and P. Pahlsson (University Hospital, Linkoping University, Sweden).

To speak with Novotny and other center researchers, please contact David Bricker, IU Media Relations, at 812-856-9035 or brickerd@indiana.edu.