

BloodCenter awarded \$5 million NIH glycosciences grant

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New national training program aims to mainstream glycosciences; train next generation of researchers



Singapore - BloodCenter of Wisconsin, part of Versiti, is among four academic and research centers which will receive approximately \$20 million over the next five years from the National Heart, Lung and Blood Institute, part of the National Institutes of Health (NIH), to launch a new national Career and Development Consortium for Excellence in Glycosciences. Glycosciences is the study of complex carbohydrate molecules and their roles in human development, health and disease.

As part of the consortium, BloodCenter of Wisconsin's Blood Research Institute will receive approximately \$5 million for its own Program for Career Development in Glycosciences.

- BloodCenter of Wisconsin Program for Career Development in Glycosciences (BloodCenter of Wisconsin, Medical College of Wisconsin, Virginia Commonwealth University and Roswell Park Cancer Institute)
- UC San Diego Program for Career Development in Glycosciences
- Hopkins-Cleveland Clinic Program for Career Development in Glycosciences (Johns Hopkins University, Cleveland Clinic)
- Harvard Program for Career Development in Glycosciences (Harvard University)

Mounting evidence suggests glycans play an important role in human development, health and disease, and should be taken into account when new therapeutics are designed and tested.

All life forms on earth contain four basic building blocks: nucleic acids (DNA and RNA), proteins, lipids (including fats) and glycans (simple and complex carbohydrates). While almost everyone has heard of DNA, RNA and proteins, people typically associate fats and carbohydrates with unhealthy food and obesity. But life requires that all four components work together in various combinations.

"Translational medicine fosters cross-functional collaborations between researchers and clinicians to facilitate precision-driven treatments for individualized therapy," said Karin Hoffmeister, M.D., Senior Investigator, BloodCenter of Wisconsin Blood Research Institute. "Scientists and clinicians successfully applied this approach to DNA and proteins; however the science of

glycans (carbohydrates) has received little attention. Hence, glycoscience and translational aspects of glycosciences lag far behind other disciplines."