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Research Interests of Jacques U. Baenziger, M.D., Ph.D.

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Molecular Cell Biology

Pathology and Immunology

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The Baenziger Lab is exploring the molecular language of carbohydrates particularly as it relates to hormones and reproduction. The Baenziger Lab defined unique carbohydrate structures on a number of glycoprotein hormones including luteinizing hormone, thyroid stimulating hormone, and the prolactin-like proteins. The unique carbohydrates are recognized by receptors located in parenchymal and endothelial cells of the liver. The receptors determine the circulatory half lives of hormones bearing these unique structures and have a critical role in determining the levels of estrogen, progesterone, and androgens produced *in vivo*. Dr. Baenziger is using this as a model system to understand how protein-specific forms of glycosylation are regulated and how the structures produced contribute to hormonal regulation.

