



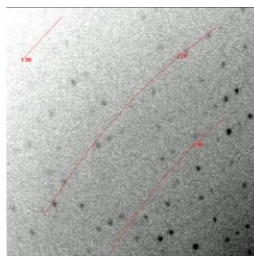
INSTITUTE FOR CELLULAR ENGINEERING

Structural Biology of Human Lysosomal Enzymes: Insights into Human Lysosomal Storage Diseases

Nathaniel Clark

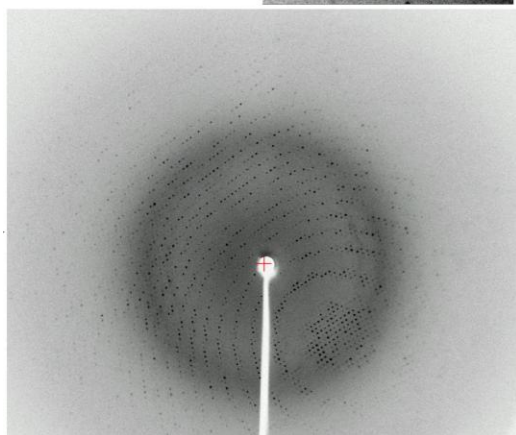
PI: Prof. Scott C. Garman (UMass Biochemistry and Molecular Biology dept.)

QuickTime™ and a TIFF (Uncompressed) decompressor are needed to see this picture.



Above: Crystal of human lysosomal enzyme

Right: X-ray diffraction from crystal of human lysosomal enzyme



Our research focuses on applying X-ray crystallography to human lysosomal enzymes to understand the molecular basis for lysosomal storage disorders.

The insights we gain from from from analyzing the atomic structures of these human glycoproteins helps us to develop therapeutic approaches to treating these diseases in humans. Additional biochemical and cellular experiments are used to test the hypothesis we develop from the structural biology experiments.