

Researchers Take "Fantastic Voyage" Through the Human Body

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Using revolutionary medical imaging technology, researchers at Rochester Institute of Technology are providing a better understanding of the human body and its many secrets.

Led by Richard Doolittle, RIT's director of the department of medical sciences, and Paul Craig, professor of chemistry, a team of students has created never-before-seen virtual images of the pancreas, detailed pictures of the human skull and DNA-level images of protein molecules.

Their findings were presented today in a virtual tour entitled "3D Visualization in Science, from molecules to cells to organs."

"We are now able to create virtual images of the human body at the microscopic level," Doolittle notes. "These images have never been produced before and will help us better understand human development while also having tremendous implications for the diagnosis and treatment of numerous diseases."

The presentation was the culmination of a dual summer research project undertaken by Doolittle and Craig, including students from the College of Science and College of Imaging Arts and Sciences.

An RIT Provost Learning and Innovation Grant funded the project and students from the team were able to conduct some of their research at Brookhaven National Lab through additional funds provided by the National Science Foundation.

"I am incredibly proud of the hard work and dedication all of the students brought to this project," Craig adds "We could not have gotten these results without their efforts and my ultimate hope is this experience will create a passion for scientific research that carries them into their professional careers."

The imaging process created by the team will eventually be used by RIT researchers and teachers to provide better insight into how to image and understand disease states at the microscopic level, shed new light on bone development and help better understand how proteins bond with other molecules.

The team hopes to expand their research in the future to include virtual imaging of other organs including the liver and brain.

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