

## Research round-the-clock

Scientists at UNMC have a powerful ally for analyzing genes or screening thousands of potential drug targets.

The UNMC Eppley Cancer Center's new High-Throughput Screening Facility provides researchers access to cutting-edge technology involving the use of RNA interference (RNAi), a powerful approach to study the function of genes and their ability to affect specific biological responses.

As part of this effort, UNMC joined the RNAi Global Initiative – a consortium of scientists from 25 leading academic research institutions from around the world – using the first small interfering RNA (siRNA) library targeting more than 22,000 human genes.

A new fully automated F3 Robotic Multi-Assay System, purchased with funds awarded competitively from the Nebraska Research Initiative, provides the versatility, sensitivity and speed to meet UNMC's dynamic range of high-throughput genome-wide siRNA screening applications.

"The round-the-clock automated system opens new doors in basic science in this state," said Paula Turpen, Ph.D., UNMC director of research resources. "We now have a tool to screen large numbers of samples very efficiently – even while you sleep."

"With the robotic platform we can analyze more than 100,000 siRNA and other chemical compounds in as little as two weeks, as opposed to taking many months or a year to conduct the same analyses," said David Kelly, research assistant professor in the Eppley Institute. "This saves investigators both time and money."



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