UF launches HiPerGator, the state's most powerful supercomputer

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The University of Florida today unveiled the state's most powerful supercomputer, a machine that will help researchers find life-saving drugs, make decades-long weather forecasts and improve armor for troops.

The HiPerGator supercomputer and recent tenfold increase in the size of the university's data pipeline make UF one of the nation's leading public universities in research computing.

"If we expect our researchers to be at the forefront of their fields, we need to make sure they have the most powerful tools available to science, and HiPerGator is one of those tools," UF President Bernie Machen said. "The computer removes the physical limitations on what scientists and engineers can discover. It frees them to follow their imaginations wherever they lead."

For UF immunologist David Ostrov, HiPerGator will slash a months-long test to identify safe drugs to a single eight-hour work day.

"HiPerGator can help get drugs get from the computer to the clinic more quickly. We want to discover and deliver safe, effective therapies that protect or restore people's health as soon as we can," Ostrov said. "UF's supercomputer will allow me to spend my time on research instead of computing."

The Dell machine has a peak speed of 150 trillion calculations per

second. Put another way, if each calculation were a word in a book, HiPerGator could read the millions of volumes in UF libraries several hundred times per second.

UF worked with Dell, Terascala, Mellanox and AMD to build a machine that makes supercomputing power available to all UF faculty and their collaborators and spreads HiPerGator's [computing power](#) over multiple simultaneous jobs instead of focused on a single task at warp speed. HiPerGator features the latest in high-performance computing technology from Dell and AMD with 16,384 processing cores; a Dell|Terascala HPC Storage Solution (DT-HSS 4.5) with the industry's fastest open-source [parallel file system](#); and Mellanox's FDR 56Gb/s InfiniBand interconnects that provide the highest bandwidth and lowest latency. Together these features provide UF researchers unprecedented computation and faster access to data to quickly further their research.

UF unveiled HiPerGator on Tuesday as part of a ribbon-cutting ceremony for the 25,000-square-foot UF Data Center built to house it. HiPerGator was purchased and assembled for $3.4 million, and the Data Center was built for $15 million.

Also today, the university announced that it is the first in the nation to fully implement the Internet2 Innovation Platform, a combination of new technologies and services that will further speed research computing.

Provided by University of Florida