

OSU takes tech approach to genomes



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Opinion Columnist

The "Genomic Revolution" which followed the Human Genome Project has been a boon to science, but the enormous data sets produced as the result of DNA and protein sequencing have launched many a brilliant scientist into the proverbial haystack, looking for the needle.

Bioinformatics is an evolving field that has emerged on the scene to save the day. With our own bioinformatics graduate certificate program, Oklahoma State University is at the forefront of assimilating bioinformatics into the life sciences.

As part of keeping us ahead of the ever-bulging data sets, an advanced supercomputing and bioinformatics workshop was hosted at OSU this August.

The workshop, entitled "Bioinformatics of Entangled Genomes," was funded through the provost's office and was the result of a collaborative effort among the bioinformatics graduate certificate program at OSU, the



A high-level supercomputing and bioinformatics workshop was hosted this summer with the theme of Entangled Genomes. The workshop was funded through the provost's office and was the combined effort of three groups: the Bioinformatics Graduate Certificate Program, the Entangled Genomes program and the iCREST program. Instructors included members of the J. Craig Venter Institute, The Texas Advanced Computing Center and iPlant.

Entangled Genomes program and iCREST.

Thirty participants, of whom 80 percent were graduate students and 20 percent were faculty and staff, participated in the workshop representing nine departments and two colleges at OSU.

Instructors came from all across the nation, including members of the J. Craig Venter Institute, The Texas Advanced Computing Center

and iPlant.

The visiting instructors were some of the most impressive names in the field of bioinformatics, and they taught OSU students and faculty the basics of computing to understand and annotate the copious amount of data produced by modern biochemical techniques, such as DNA and metagenome sequencing.

John Gustafson, head of OSU's biochemistry and mo-

lecular biology department, was thankful that the provost funded this project and added, "The OSU organizers, Dr. (Peter) Hoyt, Dr. (Mark) Fishbein, Dr. (Andrew) Doust, Dr. (Dana) Brunson and Dr. (Rakesh) Kaundal, and all the other participating faculty and staff are to be commended for running such an effective course on our campus."

The workshop was designed to meet a burgeoning need for

expertise at OSU in bioinformatics and genomics. These fields have revolutionized research in the life sciences and agriculture. The training provided at the workshop is a step towards empowering OSU faculty and students to use the most advanced sequencing and computational technologies for conducting research.

"With current and planned growth in the availability of next generation sequencing

instrumentation on the OSU campus, coupled with the new high performance super computer, "Cowboy," coming on-line this fall, OSU researchers will be better able to conduct advanced research in life sciences and agriculture," said Mark Fishbein, an associate professor of botany at OSU and one of the organizers of the workshop.

The enormous interest in the workshop has Hoyt, director of OSU's bioinformatics graduate certificate program, hopeful.

"The workshop demonstrated that we have enough faculty and student interest on our own campus to pursue the development of interdisciplinary bioinformatics degrees that can build on our bioinformatics graduate certificate program," he said.

Founded as a land grant university under the Morrill Act in 1890, OSU has always had research as one of its core priorities. With the advent of bioinformatics and the prevalence of resources and availability of options to learn cutting edge science right here on campus, OSU's students and scholars can bravely foray into the emerging, dynamic world of science appropriately equipped in this cyber age.

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Apple to unveil iPhone 5, take over the known world



LETTERS TO THE EDITOR

It's the best time to change

FROM DAVID GRIFFIN

Unemployment figures misleading

FROM BOBBY PAINTER

are no longer counted, not because people found jobs.

In Trenton Sperry's article

So although he is correct that it dropped, it's not quite