

## Massasoit Community College Cuts Ribbon on New Genomic Research Station

July 11, 2014

Brockton, MA. On Thursday, June 26, 2014, the Math and Science Division at Massasoit Community College hosted a ceremony to commemorate the creation of a new genomic research station on campus. Dr. Charles Wall, President of Massasoit Community College, marked the event by cutting the ribbon for the research station.

Biology professor Dr. Karim Sharif is collaborating with Dr. Sarah Elgin, Howard Hughes Medical Institute Professor and the founder of the Genomics Education Partnership (GEP) at the Washington University in St. Louis. The goal of the GEP is to provide opportunities for undergraduate students to participate in genomics research, focusing on a dozen species of fruit flies.

"We take the raw DNA sequence from a specific species and compare it to known genes in the *Drosophila melanogaster* to identify the gene structure and genomic organization in that particular species," said Dr. Sharif. "The work involves computer manipulations of several online tools and genomic databases. Since the research does not require any wet-lab resources, it offers a great opportunity to involve community college students in original scientific research."

Dr. Sharif has taught his three summer research students from Massasoit – whose work is funded through a Balfour grant – how to compare the raw sequence to online databases of known DNA sequences, use that information to annotate raw DNA, and identify genes and other important structural features in the genome. The information generated through this research work is useful in determining genomic organizations and evolutionary relationships of various fruit fly species, and opens new areas of research in fruit fly genomics.

"As we go forward, we want to look at having a few smaller internships during the year, and plan to incorporate this work as part of some classes, such as cell biology," said Math and Science Dean Douglas Brown. "The nice thing about this project is that it can be subdivided into small pieces, so students can be highly involved, like this summer portion, or they can invest a couple of hours a week for a few weeks, which would be ideal as a class project."

"With the help of GEP at the Washington University, we may in the future be able to offer a genomics course," added Dr. Sharif. "Understanding how to use genomic databases and do genomic analysis is a key skill for biotech, so it will be a valuable resource to have available to our students to help make them marketable to the growing biotech sector."

*Founded in 1966, in the heart of southeastern Massachusetts, Massasoit Community College is a public two-year college in the Massachusetts Public Higher Education System. It is accredited by the New England Association of Schools and Colleges (NEASC), one of the six regional accrediting bodies in the United States. Many departments carry additional accreditations. The College offers a full spectrum of associate's degree programs in arts, sciences, and applied sciences as well as one year and short term certificates across a variety of occupations and interests. In addition the College offers corporate and job skills training courses.*

