



Montague – CTE Scholar Terje Raudsepp (2010-2011)

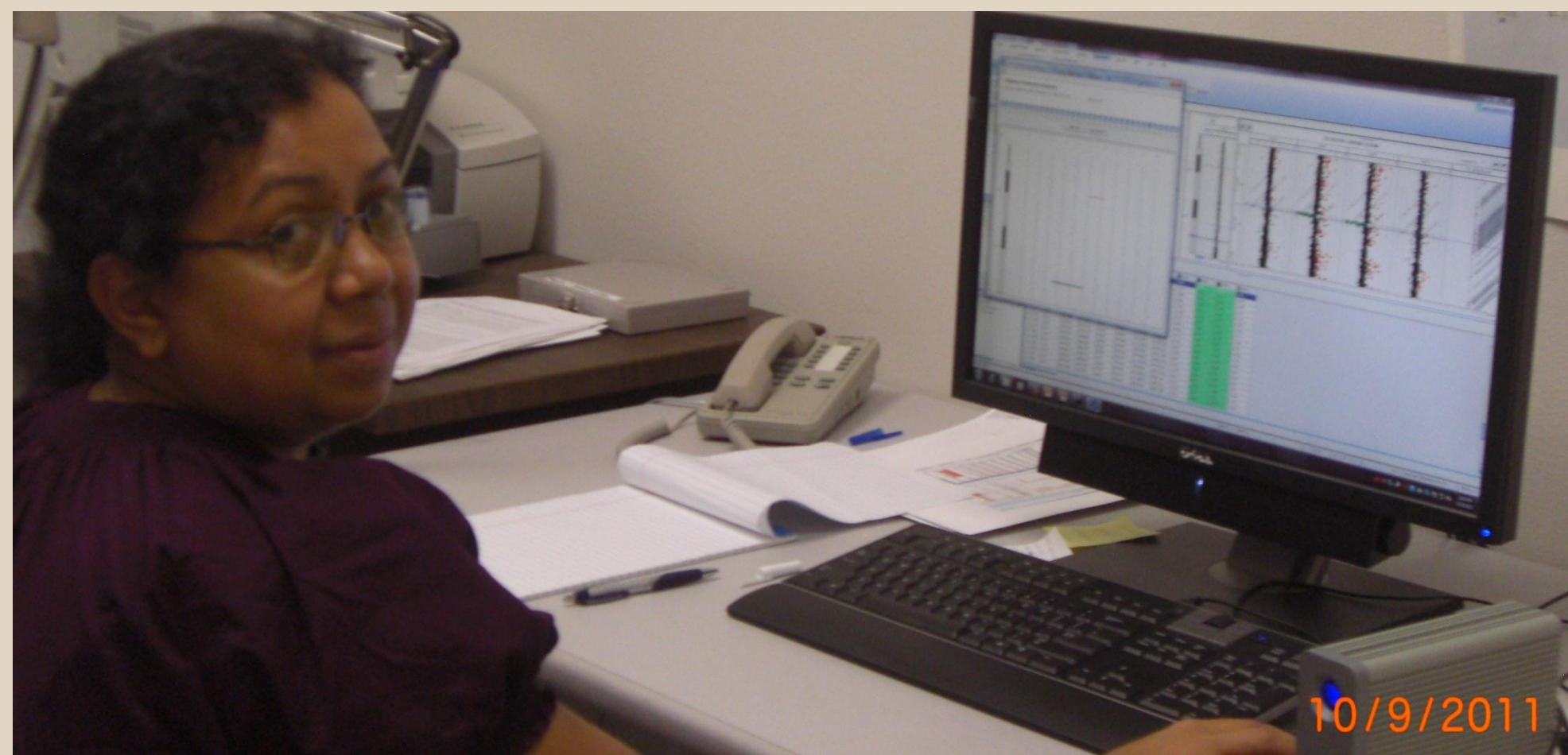


College of Veterinary Medicine & Biomedical Sciences

Analysis of mammalian genomes requires cutting edge tools and sophisticated bioinformatics analysis methods

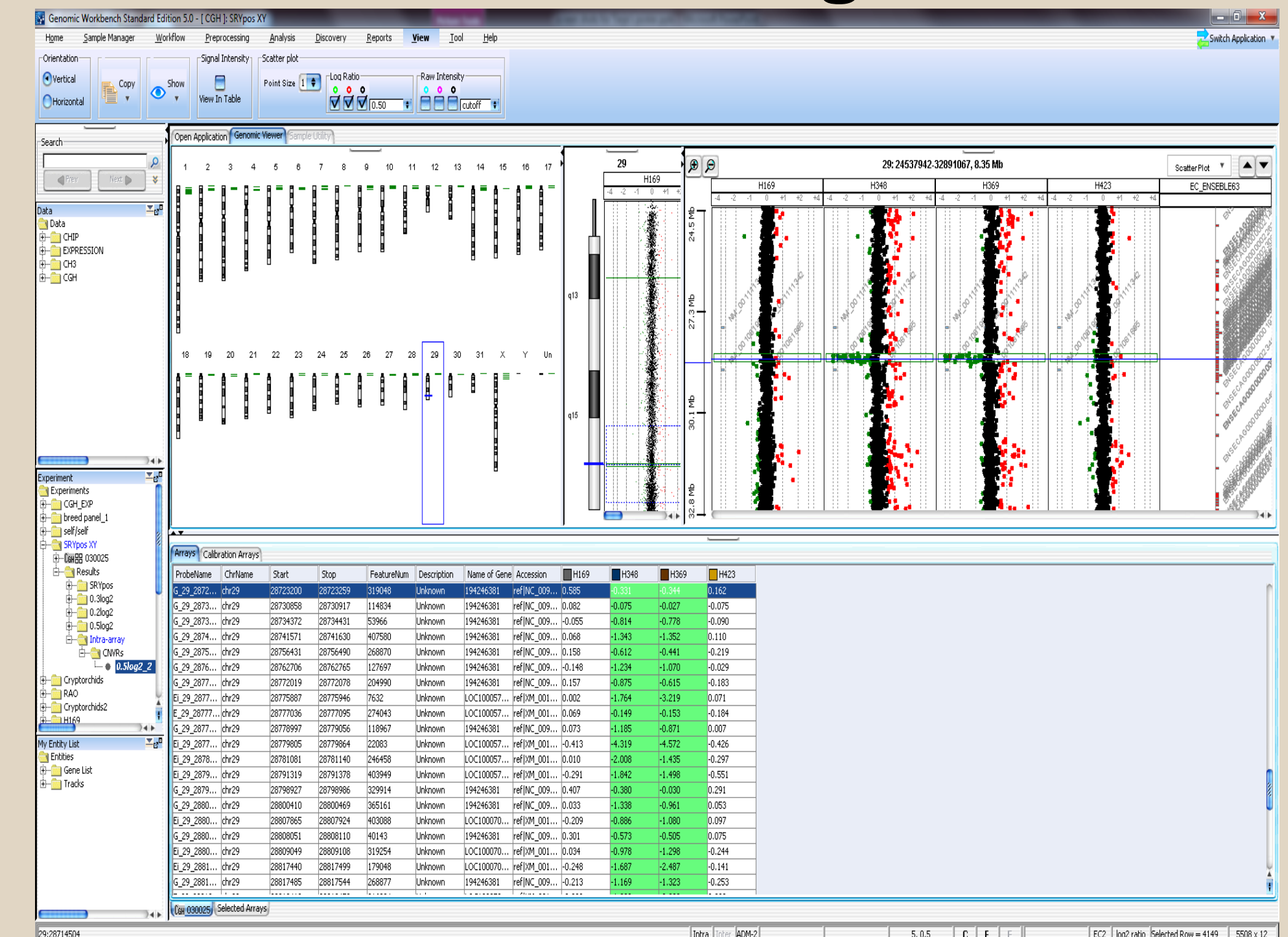
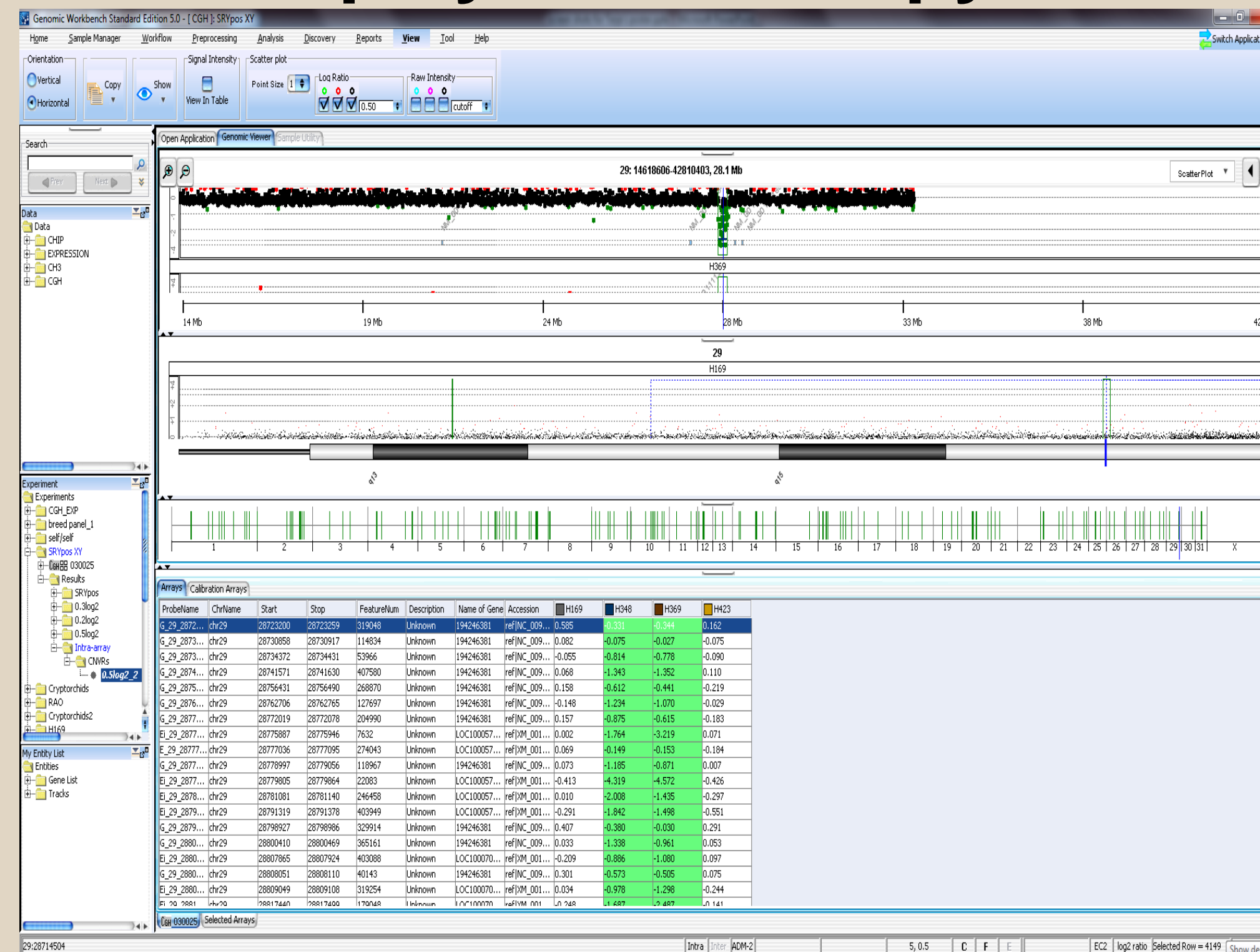
Funding from the Montague-CTE Scholars Program

Allowed to acquire a high speed and high capacity computer and a DNA Analytics Workstation



Sharmila Ghosh, a graduate student, using the Workstation for the study of DNA copy number variations in horses.

Visual display of DNA copy number variants in the horse genome

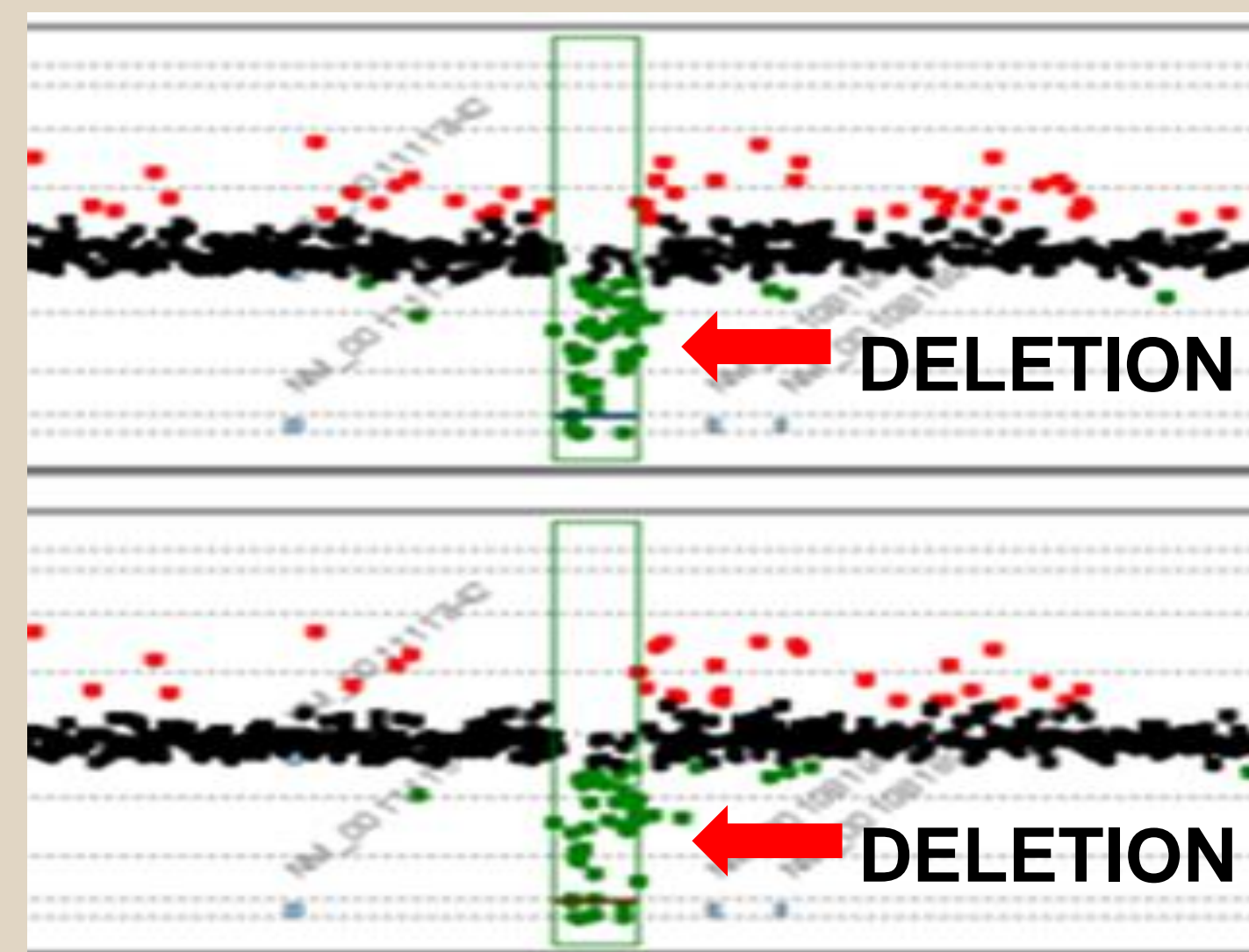


Discovery of DNA variants in XY female (sex reversal) horses

These new tools were used for genome analysis in two Standardbred trotters – winners of multiple races in the female category.

Our discoveries showed that the two mares are genetically males having XY sex chromosomes.

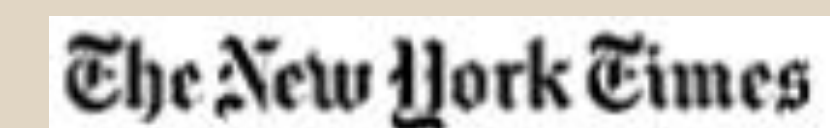
Analysis of their genomes revealed a loss of over 250,000 DNA base pairs in a gene cluster that is important for the normal functioning of sex hormones.



Balmoral Park
Martha Maxine will be a favorite in Saturday's Tony Maurello Stakes. He won the filly division last year.
Another Sex Dispute, but This Athlete Has Four Legs



COURTESY USTAATHEHORSE.COM
Arizona Helen.
Pacer Arizona Helen Reclassified as "Horse"



The two Standardbreds are currently racing in the male category and continue winning.



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