Biology 205  Winter 2003 Homework Assignment  30 pts.
Due Friday March 14 at 5 pm

http://www.tulane.edu/~dmsander/garryfavweb.html

Pick a virus from the world at large. Only ONE student per virus.

• Notify me by email that you want to do your homework assignment on this virus. I will confirm (or not) that your choice is okay -- your virus is still available.
• Investigate the natural history and molecular biology of the lifecycle of this virus

To hand in (text must be word processed): A paragraph (several sentences) describing the “natural history” of this virus:
• what kind of cell does it infect?
• does this virus has significance with respect to human history; economics [good --viruses are responsible for the stripes in some commerically valuable strains of tulips-- or bad ], history of science (for example, the virus T4 was used in one seminal experiment that showed that DNA was the carrier of genetic information)
• a drawing of the virus particle and it components -- nucleic acid, proteins, lipid coat --if present

Hand or computer drawn sketches of the life cycle of the virus
(NOTE: do not photocopy a drawing from a reference)
• what general class of viruses does it belong to?
• what type of nucleic acid serves as its genome?
• size of genome; number of genes; function of some of the genes
• map of virus genome if available (this you can photocopy or download from your reference)

http://web.uct.ac.za/microbiology/tutorial/genomes.html
• how is the genome replicated -- drawings with text
• for viruses that infect eukaryotic cells, is the genome replicated in the nucleus or the cytoplasm?

List of references consulted
You must use at least three different references:
• one textbook reference is okay
• popular science journals such as Discovery or Scientific American often have interesting articles on viruses
• web sites are okay if you are confident about the reliability of the information - - what “institution” is maintaining the site?