

Unzip Your Genes  
\$1000 Grant  
Cheryl Williams  
Palmer High School

The following items were purchased:

- Spectrophotometer
- Thermal Cycler
- 2 Gel Electrophoresis Chambers with trays and combs
- 5 set volume micropipets
- 2 adjustable micropipets
- Vortexer
- Minicentrifuge
- Disposable pipet tips

During the 2014-2015 school year students were able to do the following labs using the equipment above:

- Genes in a Bottle Lab - human DNA extraction
- Bradford Protein Assay Lab - analyze protein levels in various milk products
- Forensic DNA Fingerprinting Lab - uses restriction enzymes and gel electrophoresis

Additional labs that I plan to do next year in addition to those listed above:

- PV92 PCR Informatics Lab - students extract DNA from their cheek cells, and then use PCR amplification and electrophoresis to fingerprint their own DNA at a specific genetic locus
- pGLO Transformation Lab - students transform bacteria by introducing a gene from the bioluminescent jellyfish *Aequorea victoria*

The following classes of students have benefited from the grant funds:

- Integrated Science 2 (Biology) - 100 students
- AP/IB Biology 1 - 25 students

Thanks you! I appreciate having funds available so that the biology curriculum can include biotechnologies. The skills and concepts the students are exposed to are a great improvement.



