

## AV & Software Reviews

### TELOMERES AND DISEASE

**2006 Lasker Awards.** Created by the Albert and Mary Lasker Foundation, <http://www.laskerfoundation.org/index.html>. Free.

The Lasker Foundation is an organization that promotes the treatment of disabilities and disease by honoring superiority in science. The Lasker Awards are annual awards given to honor remarkable achievements in scientific research. This DVD helps students to learn about the scientific discovery of telomeres made by Elizabeth H. Blackburn, Carol W. Greider, and Jack W. Szostak, who were the winners of the 2006 Award for Basic Medical Research. Students are also able to learn about the development of cognitive therapy by Aaron T. Beck who was the winner of the 2006 Award for Clinical Medical Research.

Telomeres are located at the ends of chromosomes and protect against destruction. Every time DNA replicates it is not able to re-copy the ends, thus getting shorter and shorter after every replication. Telomeres then add the DNA which was lost, allowing the chromosome to reproduce DNA completely. Cognitive therapy is a form of psychotherapy used to treat different disorders such as depression. Patients who have a negative self-image and have distorted and negative ways of thinking that often lead to suicidal thoughts can benefit from cognitive therapy. Therapists use cognitive therapy to call attention to patients' negative thought processes and covert them to positive thinking and feelings.

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Students are able to grasp the information and understand the roles telomeres play in the replication of DNA by comparisons to real-life scenarios such as skateboarding. To grasp the ideas and results of cognitive therapy, the DVD also shows a teenager who was affected by depression and how he was cured by the use of cognitive therapy. This interesting and easy to understand production is a great teaching aid in the study of DNA replication and telomeres in biology/biotechnology and an effective

study tool in the learning of different disorders and the affect of cognitive therapy in a psychology or health class. This teaching aid could be used as early as a middle school classroom.

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