

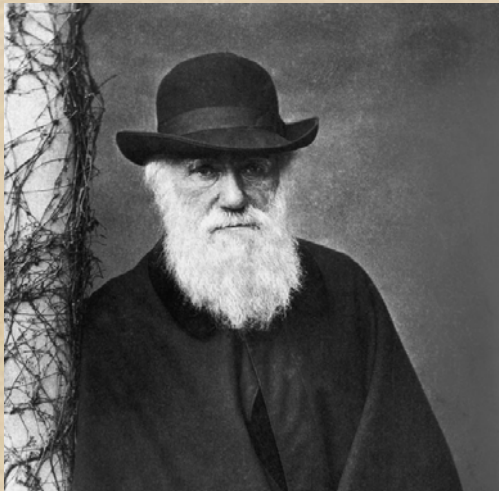
# Annual Meeting

16–20 February 2006 • St. Louis, Missouri

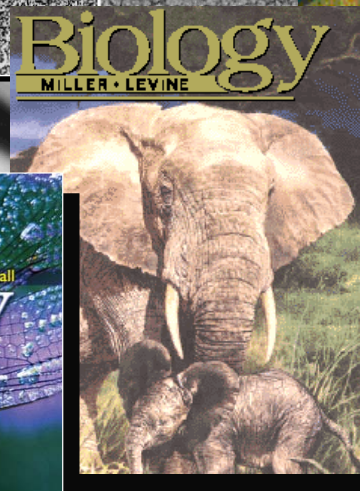
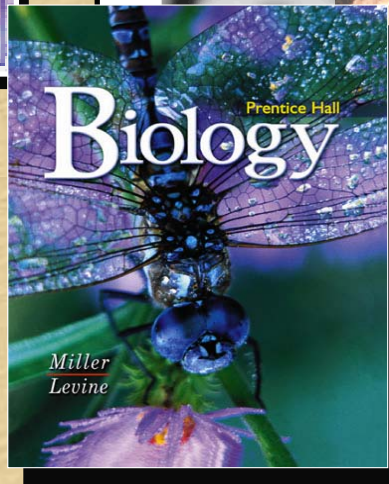
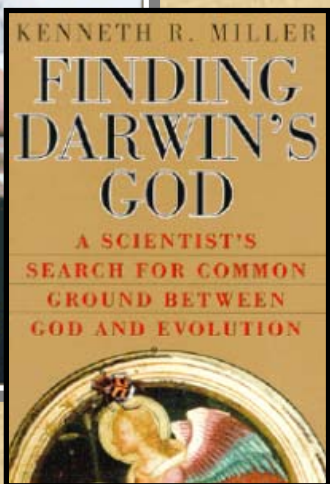
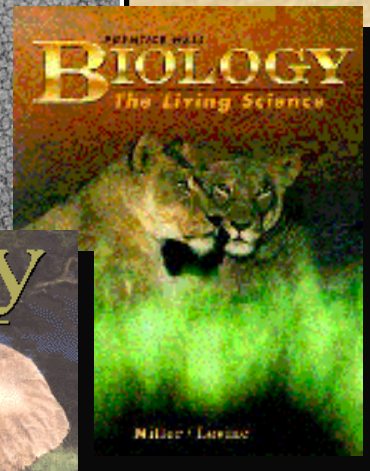
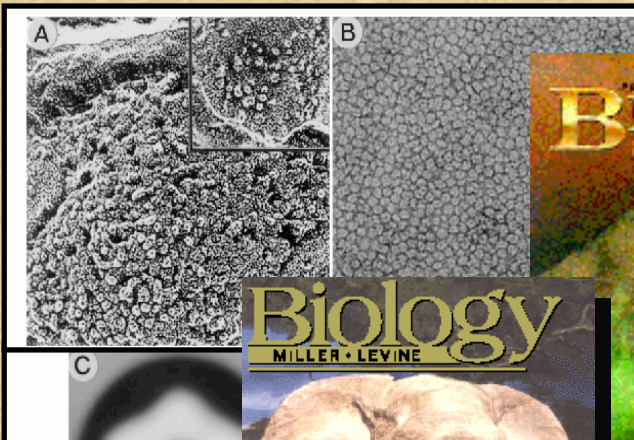
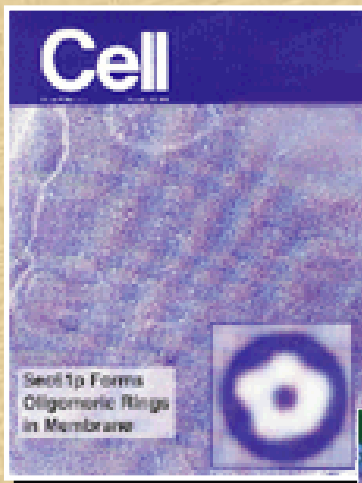
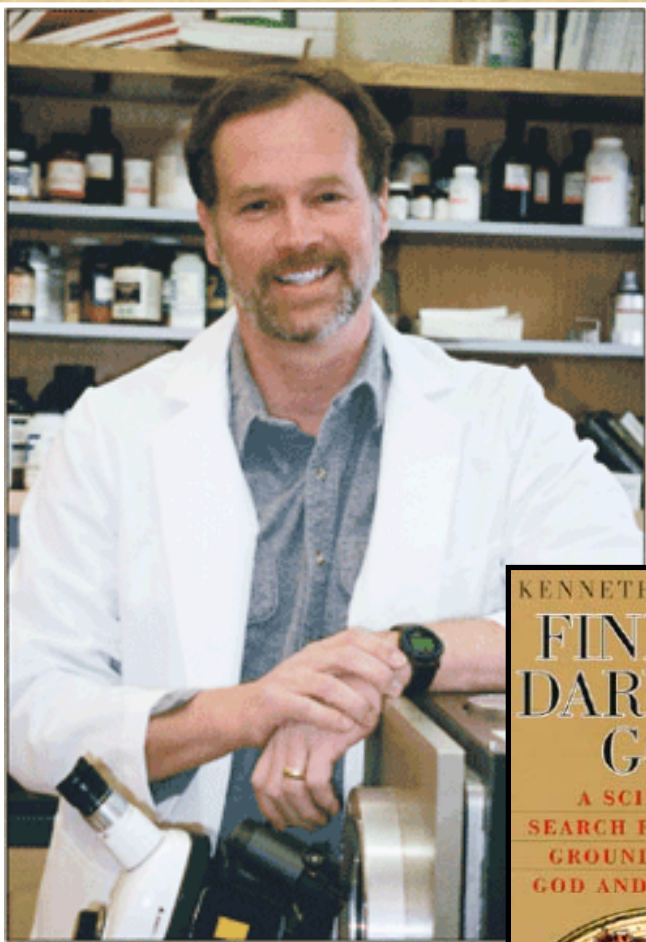


## Time to Abandon Darwin?

*Answering the Challenge  
from “design”*

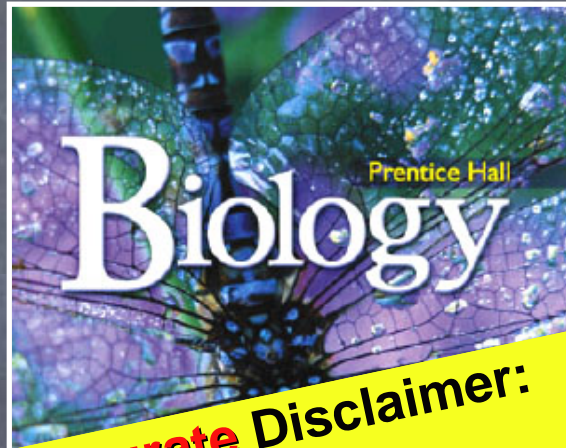


**Kenneth R. Miller**  
**Brown University**



## Georgia County Opens Door to Creationism

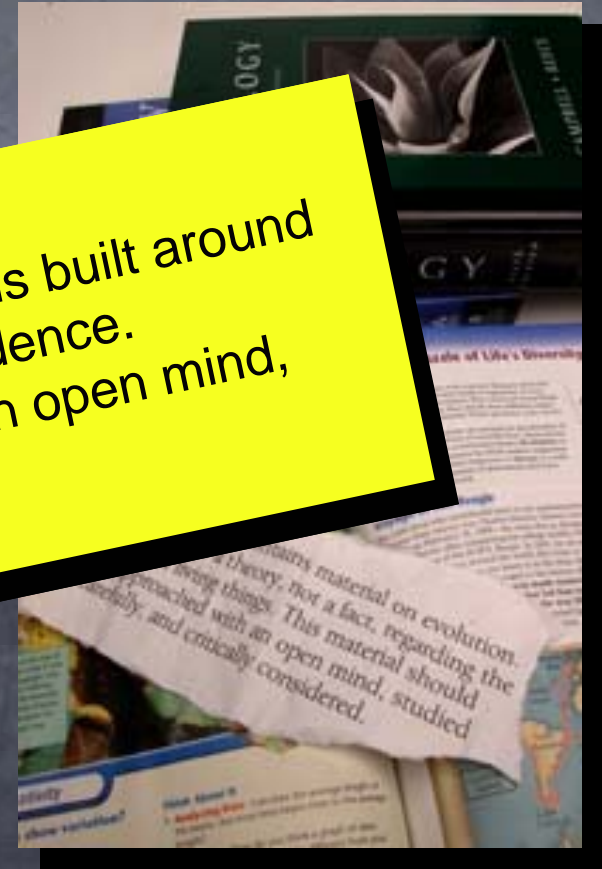
The forces of creationism gained ground in Georgia last week when a local school board unanimously adopted a policy that opens the door to creationist-inspired critiques of evolution in biology classes. The policy follows the board's decision in March to insert "disclaimers" into new elementary and high school biology textbooks saying that evolution is only a "theory." The action directly affects only 95,000 students in Cobb County, a suburb of Atlanta and the 28th largest school district in the country. But many science educators say it is part of a national campaign to teach creationist ideas alongside evolution for the sake of "balance."



### An **Accurate** Disclaimer:

This textbook contains material on science. Science is built around theories, which are strongly supported by factual evidence. **Everything** in science should be approached with an open mind, studied carefully and critically considered.

# We Live in **very** Interesting Times





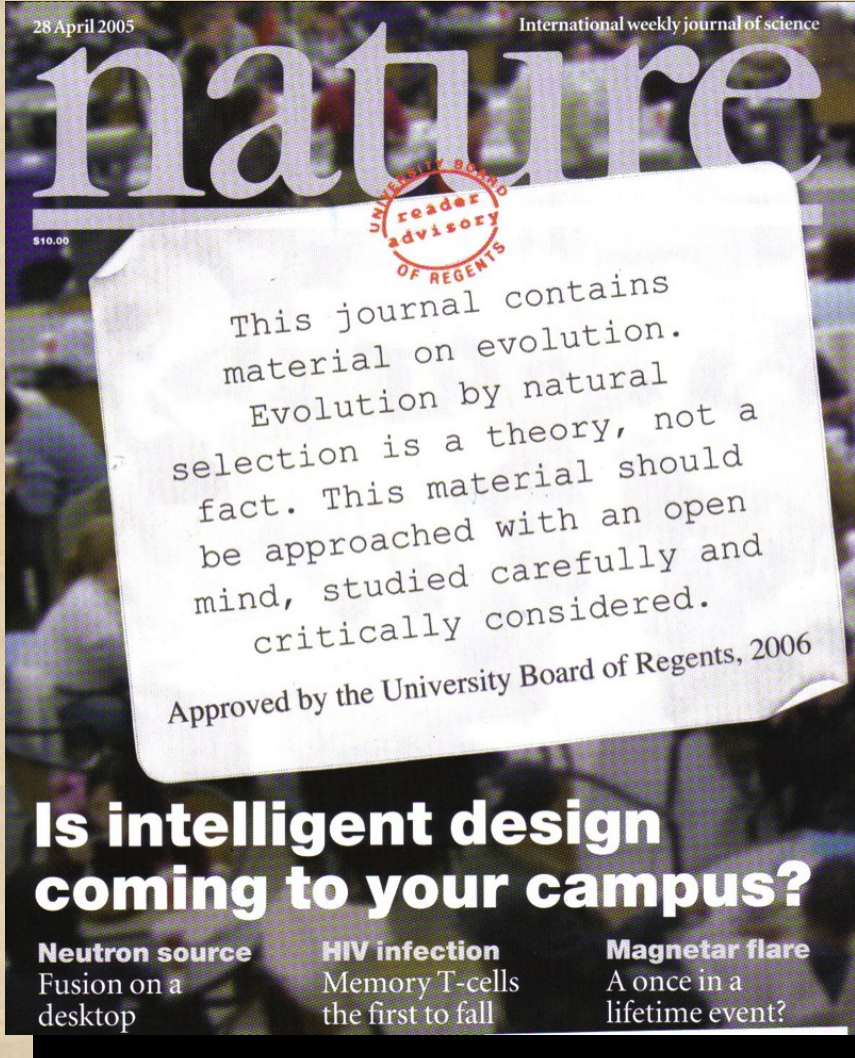
Kitzmiller, et al. v. Dover School District, et al.  
Judge Jones' Memorandum and Order in this case has been docketed.

[342](#)

Opinion

# Can we learn anything from the Dover trial?

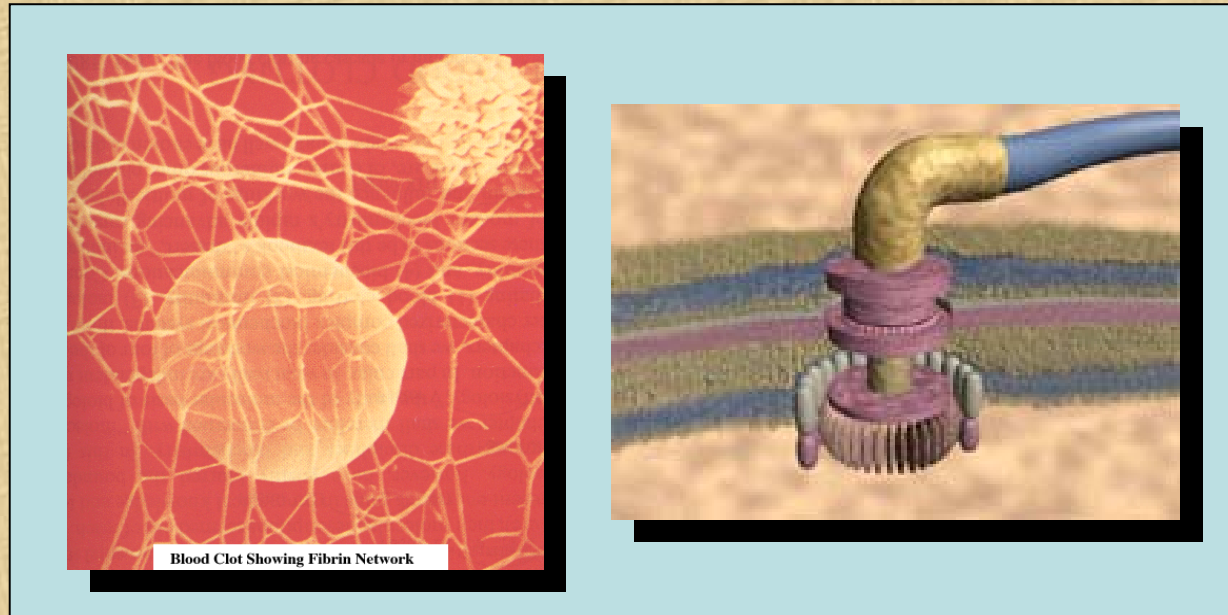




Yes.

The trial documented the collapse of ID as a scientific theory.

# The “icons” of design have been exposed as false



## Specifically Refuted at the Trial:

- the bacterial flagellum
- the blood clotting cascade
- the generation of biological information

Data from whole genome sequencing could not be refuted by ID advocates



## Chimp genetic code opens human frontiers

Genome comparison reveals many similarities — and crucial differences

By Alan Boyle

Science editor

MSNBC

Updated: 4:20 p.m. ET Sept. 1, 2005

Scientists unleashed a torrent of studies comparing the genetic coding for humans and chimpanzees on Wednesday, reporting that 96 percent of our DNA sequences are identical. Even more intriguingly, the other 4 percent appears to contain clues to how we became different from our closest relatives in the animal kingdom, they said.

"We're really looking at an individual evolutionary event, and this is spectacular," said University of Washington geneticist Robert Waterston, senior author of a study in the journal Nature presenting the draft of the chimpanzee genome.

# Example: the Evolutionary Hypothesis of Common Ancestry

Chromosome Numbers in the great apes:

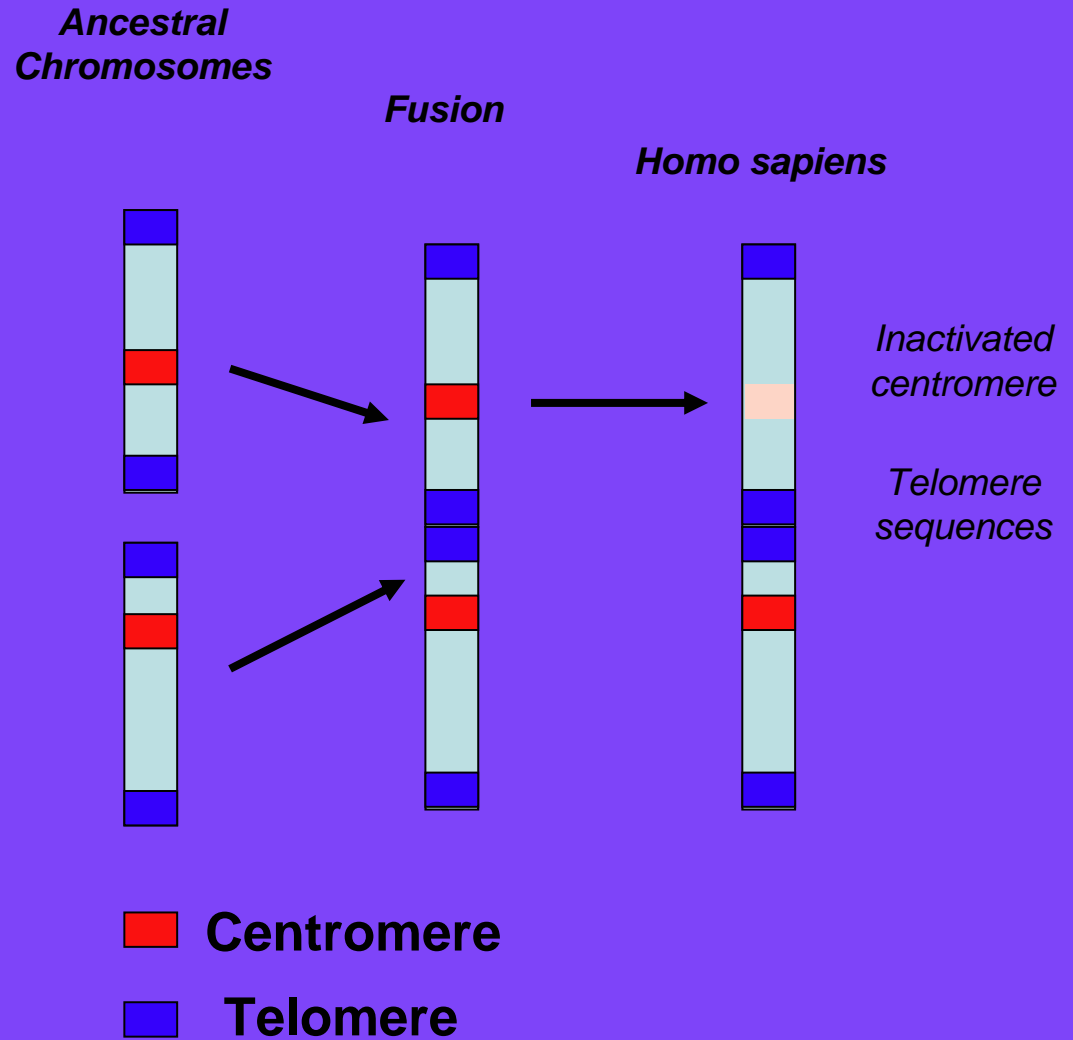
human ( <i>Homo</i> )	46	←
chimpanzee ( <i>Pan</i> )	48	
gorilla ( <i>Gorilla</i> )	48	
orangutan ( <i>Pongo</i> )	48	

**Testable prediction: If these organisms share a common ancestor, that ancestor had either 48 chromosomes (24 pairs) or 46 (23 pairs).**



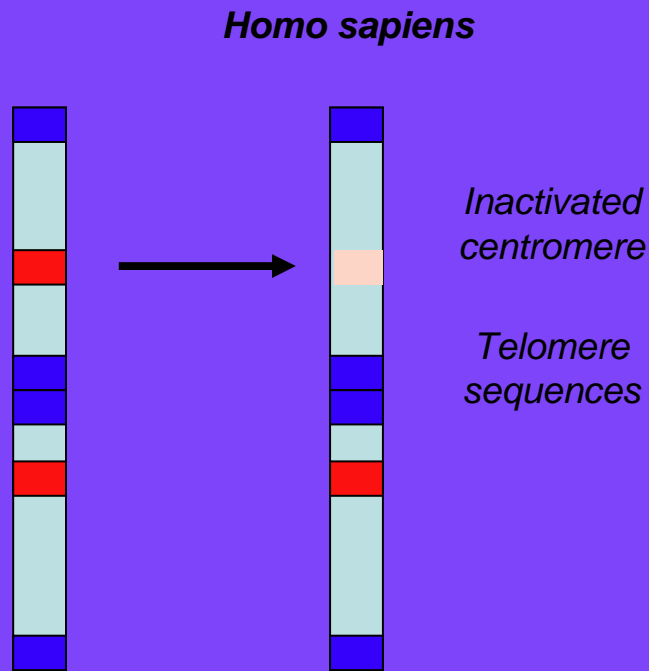
# Chromosome Numbers in the great apes (*Hominidae*):

human ( <i>Homo</i> )	<b>46</b>
chimpanzee ( <i>Pan</i> )	48
gorilla ( <i>Gorilla</i> )	48
orangutan ( <i>Pogo</i> )	48



**Testable prediction:** Common ancestor had 48 chromosomes (24 pairs) and humans carry a fused chromosome; or ancestor had 23 pairs, and apes carry a split chromosome.

# Human Chromosome #2 shows the exact point at which this fusion took place



“Chromosome 2 is unique to the human lineage of evolution, having emerged as a result of head-to-head fusion of two acrocentric chromosomes that remained separate in other primates. The precise fusion site has been located in 2q13–2q14.1 (ref. 2; hg 16:114455823 – 114455838), where our analysis confirmed the presence of multiple subtelomeric duplications to chromosomes 1, 5, 8, 9, 10, 12, 19, 21 and 22 (Fig. 3; Supplementary Fig. 3a, region A). During the formation of human chromosome 2, one of the two centromeres became inactivated (2q21, which corresponds to the centromere from chimp chromosome 13) and the centromeric structure quickly deteriorated (42).”

**Hillier *et al* (2005)** “Generation and Annotation of the DNA sequences of human chromosomes 2 and 4,” *Nature* 434: 724 – 731.

## Two candidates back study of creationism in schools

By CHARLES S. JOHNSON  
Gazette State Bureau

HELENA - Republican gubernatorial candidates Tom Keating and Ken Miller believe creationism should be taught in public schools, while the other four major political party candidates for the office disagree.

Creationism is the belief that the Earth and life on Earth were created in a short period of time as described in the book of Genesis. Some conservative Christians see it as an scientifically valid alternative to Charles Darwin's theory of evolution.

## Creationism battle heats up again in US schools

By *Michael Matthews, AIG-US*

February 8, 2002

Skirmishes continue to break out in the US over science education in public schools. The latest struggles focus on state education standards for the teaching of science. Boards of education across the nation are now 'looking over their shoulders,' watching to see what happens to the next state that gets in the creation/evolution limelight. The spotlight is now on Ohio.

**What's at Stake?  
Everything.**

