

Stranger Than Fiction

Joan L. Slonczewski says the fast pace of scientific discovery makes her life as a biologist exciting, but as a science fiction novelist—it's tough.

"It's almost a kind of a shock wave, where the faster your imagination moves, the faster the world catches up," says Slonczewski, a biology professor and HHMI undergraduate program director at Kenyon College in Gambier, Ohio. "It becomes a real challenge to keep a step ahead."

For example, in the novel she is currently writing—her sixth—a space elevator runs from a college based on a space satellite to the planet below, a world disrupted by global warming. "Space elevators used to be a fantastical science-fiction idea," she says, "yet now people are seriously planning to build them."

According to Slonczewski, her scientific knowledge, especially in her own research field, is her ace in the hole for helping her stay out in front. "Microbiology has undergone an explosion of discovery in the past decade into realms that are as bizarre as anything appearing so far in novels."

In *A Door into Ocean*, her best-known work (it won the 1987 John W. Campbell Memorial Award for the best science-fiction novel of the year), human protagonists have purple bacteria living in their bodies that contribute to oxygen storage. "This was based on my research experience with purple bacteria that have unusual metabolic properties," she says.

Slonczewski started writing novels in graduate school, inspired by sci-fi authors Robert Heinlein (particularly his *Have Space Suit—Will Travel*) and Ursula Le Guin (*The Left Hand of Darkness*). The culture of the times also moved her. "I was deeply concerned about the nuclear arms race and global environmental change and wanted to write about a future where humans found a way to live with planet Earth."

Her writing has been colored as well by her beliefs as a member of the Religious Society of Friends, or Quakers, which she joined as a student. "The Friends have a unique 'experimental' view of truth that engages God and the natural world on equal terms," she says. "I have found this perspective inspirational in working with students struggling with questions that link faith and evolution, both of which are profoundly important principles to me."

Slonczewski says her experience with the Friends underlies the plot of *A Door into Ocean*, in which an advanced army invades an all-woman pacifist society, called Sharers, living in the ocean. This novel deals with evolution, ecology, and genetic engineering as well as the power of nonviolent action in social issues.

Now, Slonczewski is completing a book of a different sort: *Microbiology: An Evolving Science*, coauthored with John Foster, which is scheduled for publication by W.W. Norton & Company in January 2008. Seven years in the making,



In teaching the course "Biology in Science Fiction," Joan Slonczewski uses both a fossilized trilobite, extinct around 245 million years ago, and a furry tribble, an imaginary creature from *Star Trek*, to explain principles of evolution.

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the undergraduate-level textbook emphasizes genetics and fundamental chemistry, says Slonczewski, and is a "big improvement over the competition." And just as she includes science fact in her sci-fi, she has incorporated sci-fi into her text. "In the textbook I use science fiction examples to dramatize concepts, such as the *Andromeda Strain* as an example of thinking about an emerging pathogen."

After finishing the text, she plans to finish her novel. The working title? She prefers to keep that under wraps.
—Howard Wolinsky