

Biology 446 - Unsolved Problems in Cell Biology - Fall 2019

Meets Monday, Wednesday and Friday, 10:10 AM-11:00 AM, Genome Sciences Building Room 1374.

Albert Harris: akharris@bio.unc.edu

Office 103 Wilson Hall; phone 919-966-1230

Office Hours: 11:00 to 12:00 Monday and Wednesday, and by appointment

Wed. August 22: Philosophy of Science Assignment: Please read this [web page](#).

Fri. August 24: Assignment: Read the book "The Double Helix" by James Watson

Mon. August 27: Continue discussing the lessons of Watson's autobiography.

[Pre-Crick-Watson Knowledge About Genes](#)

[What Watson Knew](#)

[Questions for discussion of Watson and Crick](#)

James Watson mentions that he was stimulated to go into science by reading the book "Microbe Hunters" when he was a boy. This same book is credited by every scientific biography I have read, and it also stimulated me when I read it at about age 10.

There is a YouTube video called "Paul De Kruif: The Microbe Hunter and Author" presented by John Lehman, who is a Professor and administrator at ECU medical school. This is nearly an hour long, and is not required, but you may find it interesting.

["Paul De Kruif: The Microbe Hunter and Author"](#)

Please do read the article at this URL:

<https://pdfs.semanticscholar.org/146c/a9928be59e69c975cc32310b8a4de2098cf7.pdf>

From the Wikipedia article about about "Microbe Hunters":

"...Paul de Kruif... 1926 book, Microbe Hunters.. a bestseller for a lengthy period... has remained high on lists of recommended reading for science and ...an inspiration for many aspiring physicians and scientists."

This entire book is posted on the web, but is NOT assigned reading for this course:

<https://laurieximenez.files.wordpress.com/2016/03/2-microbe-hunters-paul-de-kruif.pdf>

Another book worth reading, but not required, is the novel "Arrowsmith" by Sinclair Lewis. You can [get the entire text on line here](#).

Quotes from the Wikipedia article about the novel "Arrowsmith":

"Arrowsmith is arguably the earliest major novel to deal with the culture of science."

"This novel has been inspirational for several generations of pre-medical and medical students."

"Professional jealousy, institutional pressures, greed, stupidity, and negligence... also tireless dedication, and respect for the scientific method and intellectual honesty."

The syllabus will continue to be developed as the semester goes on.

Please see the latest version at http://www.albertkharris.com/bio446_2019.html

PLEASE NOTICE THE FOLLOWING:

This course requires the equivalent of a **term paper**, which is **due to be turned in no later than the Friday before Thanksgiving**. How to write this paper is described in the link below. You have to find a published research paper, the conclusions of which have turned out to be seriously wrong. That doesn't mean "fraudulent" and it also doesn't just mean that progress has shown the truth to be more complicated. Specific examples of appropriate papers will be discussed in class.

[The Dreaded Erroneous Research Paper Assignment](#)

Assigned class reports and participation in class discussion will also be part of the grade.