Thesis: The Hwang Woo-Suk Scandal and the Development of Bioethics in South Korea

Editor's note:

Anne Clay defended her thesis titled "The Hwang Woo-Suk Scandal and the Development of Bioethics in South Korea" in 2012 in front of committee members James Hurlbut, Jane Maienschein, and Gary Marchant, earning her a Bachelor's degree from Barrett, the Honors College. https://repository.asu.edu/items/15764

Abstract:

In 2004, the South Korean geneticist Woo-Suk Hwang published what was widely regarded as the most important research finding in biotechnology that year. In the prestigious American journal Science, he claimed that he had succeeded in cloning a human blastocyst, which is an embryo in its early developmental stages (Hwang et al. 2004). A year later, in a second Science article, he made the earth-shattering announcement that he had derived eleven embryonic stem cell lines using his cloning technique (Hwang et al. 2005). The international scientific community was stunned. American scientists publicly fretted that President George W. Bush's executive order in 2001 which limited federal funding for stem-cell research in the United States had put American bioscience behind the Koreans' (Paarlberg 2005).

Those breakthroughs offered potential solutions to immune system rejection of transplanted organs and possible cures for diseases such as rheumatoid arthritis, Parkinson's, Down's syndrome, and paralysis (Svenaeus 2007). However, within a year, Hwang was exposed as a fraud who had faked his results and pressured his female colleagues to donate eggs without receiving informed consent. Despite protests against his methods from Korean religious and nongovernmental organizations, Hwang had used his prestige to ignore his ethical obligations. Moreover, the Korean government was slow to investigate Hwang and to subject his work to appropriate regulation.