

## Medical/Scientific Racism and Discrimination Project

Why is this important to you? All of the professional science and science education associations, as well as medical associations, across the country have committed to creating a more inclusive and equitable space in science. This includes scientists and science educators who are representative of the national population. Below are links to statements from several professional associations:

- American Association for the Advancement of Science: <https://www.aaas.org/focus-areas/diversity-equity-inclusion> and <https://seachange.aaas.org/>
- Society for the Advancement of Biology Education Research: [https://saberbio.wildapricot.org/Diversity\\_Inclusion](https://saberbio.wildapricot.org/Diversity_Inclusion)
- Ecological Society of America: <https://www.esa.org/about/diversity-in-ecology/deij-resources/>
- American Society for Microbiology: <https://asm.org/Browse-By-Topic/Diversity-Inclusion>
- American Medical Association: <https://www.ama-assn.org/delivering-care/health-equity/how-ama-reshaping-its-path-toward-racial-equity>
- National Association of Biology Teachers: <https://nabt.org/Position-Statements-Equity-in-Science-Education>

### Objectives of this assignment:

1. Identify at least one racial, equity, or discrimination issues in the Lacks story. Write one-page (minimum) reflection describing your reaction to this. If you are struggling to identify one of these issues from the readings, please discuss this with me so that I can steer you in the right direction.
2. The following is a list of medical myths created to justify either racist or discriminatory medical testing/treatments, or racist/discriminatory scientific research participation and methodology. In addition there are several types of racial or discriminatory disparities in medical care/treatment related to marginalized populations that still occur today.
  - I have provided one resource to get you started. Please find at least 2 additional resources to cite for this project. Don't forget to cite any images that you use for your presentation.
  - Choose one of these topics to research further. From your research, you will prepare a narrated, 5-10 slide presentation summarizing your research on this topic to post on the discussion board for peer review, comment, and discussion.
    - **As a peer reviewer**, you will be randomly assigned a presentation to review. A set of guidelines and checklist will be provided.
    - **As a commenter**, you will ask a well-thought-out question about the presentation to at least **one** of your colleagues.
    - **As a presenter**, you will respond to questions regarding your presentation.

**Unethical Research:**

- **Eugenics movement** (Francis Galton): forced sterilization of “soft-headed” men and women; social class; Native Americans; and blacks to create racial and genetic purity. Much of Galton’s work was studied and used by Hitler. Resource: *The Gene*, a book by Siddhartha Mukherjee, 2016, has a section on the eugenics movement.
- A starting point, "**A study in nature": the Tuskegee experiments and the New South plantation (<https://pubmed.ncbi.nlm.nih.gov/19603260/>):** This essay rethinks the Tuskegee Syphilis Experiments in light of a long history of experimentation in plantation geographies of the U.S. South. Turning to late nineteenth- and early twentieth-century discourses of the New South and to Booker T. Washington's Tuskegee Institute, this essay illuminates the extension of the laboratory life of the plantation into the twentieth century. The focus on personal hygiene at the Tuskegee Institute opened the door for alliances with public health initiatives early on, making the school's student population as well as residents of surrounding counties subjects of intense hygienic surveillance well before the official start of the syphilis study.
- **Agent Orange Experiments:** Prisoners, like people of color, have often been the unwilling objects of evil experiments. From 1965 to 1966, Dr. Albert Kligman, funded by Dow Chemical, Johnson & Johnson, and the U.S. Army, conducted what was deemed “dermatological research” on approximately 75 prisoners. What was actually being studied was the effects of Agent Orange on humans.
- **Irradiation of Black Cancer Patients:** During the Cold War, the U.S. and the Soviet Union spent much of their time trying to figure out if they could survive a nuclear catastrophe. How much radiation could a human body take? This would be important information for the Pentagon to know, in order to protect its soldiers in the event they were crazy enough to start an atomic holocaust. Enter the seeming go-to government choice for secret experimentation: unknowing African Americans.
- **Slave Experiments:** It should be no surprise that experiments were often conducted on human chattel during America’s shameful slavery history. The man considered the father of modern gynecology, J. Marion Sims, conducted numerous experiments on female slaves between 1845 and 1849. The women, afflicted with vesico-vaginal fistulas, a tear between the vagina and the bladder, suffered greatly from the condition and were incontinent, resulting in societal ostracism.
- **World War II: Heyday of Evil Experiments:** While evil experiments may have been going on in the U.S. during World War II (Tuskegee, for example), it’s hard to argue that the Nazis and the Japanese are the indisputable kings of evil experimentation. The Germans, of course, conducted their well-known experiments on Jewish prisoners (and, to a much

lesser extent, Romany people and homosexuals and Poles, among others) in their concentration/death camps. In 1942, the Luftwaffe submerged naked prisoners in ice water for up to three hours to study the effects of cold temperatures on human beings and to devise ways to rewarm them once subjected.

- **In Puerto Rico, the efficacy of birth control, specifically the pill, was studied on Puerto Rican women of color.** In 1955, oral contraceptives couldn't be brought to the market until researchers conducted large-scale human trials to prove the pill was safe. These vulnerable women weren't told that the pill was only in its experimental stages, nor were they warned of any potential dangerous side effects.

#### Medical myths (find out how/why this myths came about):

- Examples: “**Black people’s nerve endings are less sensitive than white people’s.**” “Whites are less susceptible to heart disease.” “Black people’s blood coagulates more quickly than white people’s” : <https://www.aamc.org/news-insights/how-we-fail-black-patients-pain> and <https://www.pnas.org/content/pnas/113/16/4296.full.pdf>
- **Black people don’t get yellow fever** (1700s). Black people were forced to stay and take care of whites afflicted with yellow fever. Rich white people, including George Washington, fled to their country homes to wait out the epidemic. Resource: [https://repository.hkbu.edu.hk/cgi/viewcontent.cgi?article=1013&context=lib\\_ugaward](https://repository.hkbu.edu.hk/cgi/viewcontent.cgi?article=1013&context=lib_ugaward)

#### Health and/or Environmental Inequities:

**Starter article:** Dovidio, J., et al. (2016). Racial biases in medicine and healthcare disparities.

*TPM* (full copy: <http://www.tpm.org/wp-content/uploads/2016/12/23.4.5.pdf>)

- **CURRENT CRISIS – Health effects of air pollution:** <https://www.lung.org/clean-air/outdoors/who-is-at-risk/disparities>. The burden of air pollution is not evenly shared. Poorer people and some racial and ethnic groups are among those who often face higher exposure to pollutants and who may experience greater responses to such pollution.
- **CURRENT CRISIS – COVID-19: Health Equity Considerations and Racial and Ethnic Minority Groups:** <https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html> and <https://neadjustice.org/2020/06/04/covid-19-the-heavy-toll-on-black-communitieshow-states-localities-and-educators-are-responding/>
- **Current crisis - Native Communities Disproportionately Affected by COVID-19 Pandemic:** <https://neadjustice.org/2020/04/27/native-communities-disproportionately-affected-by-covid-19-pandemic/>
- **CURRENT CRISIS – Racial and Ethnic Disparities Continue in Pregnancy-Related Deaths Black, American Indian/Alaska Native women most affected:** <https://www.cdc.gov/media/releases/2019/p0905-racial-ethnic-disparities-pregnancy-deaths.html>

- **Historical:**
  - Legally sanctioned medical and environmental neglect of enslaved Africans and the institutionalization of an inconstant, often inferior, slave health subsystems-processes which began in the 16th century. (Byrd & Clayton, 2001).
  - **1918 Flu Pandemic:** A look at how this pandemic was handled by the Wilson administration including the purposefully held “Warbonds Parade”: <https://www.smithsonianmag.com/history/philadelphia-threw-wwi-parade-gave-thousands-onlookers-flu-180970372/>

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