

Sanctioned Medical Exploitation: Dr. Albert Kligman and the Holmesburg Prison
Experiments, 1951-1974

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HIS 480

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December 7th, 2020

Dr. Shyam Verma, in a short obituary honoring Dr. Albert Kligman in the *International Journal of Trichology* in 2010, wrote, “he got bad press for the ‘infamous’ experiments that he conducted in an American prison on inmates and the press hounded him probably much more than what was required. That was the price he paid for being famous.”¹ Verma questions why the press chose to report negatively about Kligman’s involvement in the Holmesburg experiments, insinuating that the main reason was jealousy for his fame. Laudatory takes on Kligman such as this are common among the dermatological medical community, with one doctor even calling him the “father of modern dermatology.”² Kligman remains widely revered for his contributions to the field, especially his involvement in creating Retin-A.³ He developed this acne treatment medication while conducting dozens of experiments on predominantly African American prisoners at Holmesburg Prison in Philadelphia, Pennsylvania from 1951 to 1974.⁴ Kligman’s research was not an isolated incident, but represented a pattern of exploitative experimental practices on prisoners in the United States that widely expanded during World War II and the postwar period.⁵ This paper will illuminate Holmesburg as an example of racialized post-World War II human experimentation by exploring the complicated intersections between prison, racial, and medical history, and demonstrating that Kligman’s experiments were well-known and accepted by both the media and the medical establishment in the United States.

¹ Shyam B. Verma, “Albert Kligman, also a Hair Man,” *International Journal of Trichology* 2, no. 1 (2010): 69.

² Ibid. Dr. Guy Webster of the University of Pennsylvania called him this and Verma agreed with him.

³ Denise Gellene, “Dermatologist Invented Retin-A,” *The Gazette*, February 24, 2010.

⁴ Ibid.

⁵ Scholar Allen Hornblum notes that an American obsession for scientific advancement led to extensive federal funding for research and an increase in demand for human subjects. During World War II, President Franklin Delano Roosevelt formed the Committee on Medical Research that allocated 25 million dollars to various medical institutions to find cures for diseases that were plaguing the military. This disease-centered approach to postwar human research was reflected in many of Kligman’s experiments. Allen M. Hornblum, *Acres of Skin: Human Experiments at Holmesburg Prison*, (Oxfordshire: Taylor & Francis Group), 1998: 37.

Widespread patriotic and American exceptionalist beliefs during and after World War II contributed to a postwar environment in which medicine adhered to a warped utilitarian ethic that prioritized medical advancement at any cost.⁶ The following statement encapsulated the American approach to research: “enemies needed to be fought, diseases conquered, and scientific advancement encouraged.”⁷ This ideal of progress limited the ability for ethical oversight on experimentation.⁸ The public cared little about safety as long as the United States was winning the war effort. This culture of scientific advancement led to numerous government-supported experiments in which prisoners were exposed to deadly viruses.⁹ Media coverage on these experiments lauded the prisoners for their patriotic efforts to eliminate disease in America.¹⁰ Once the war ended, the “enemy” shifted from nations to diseases. This approach was reflected in numerous human experiments in the United States.¹¹ While the beginnings of the Holmesburg Prison experiments were explained by the postwar obsession for scientific advancement, they go beyond simply reinforcing this notion of progress. These experiments were heavily racialized; one needs to understand the connections between race and medicine, prison culture, and postwar human experimentation in the United States to fully understand the Holmesburg moment.

⁶ David J. Rothman, *Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making*, (Oxfordshire: Taylor & Francis), 2017: 51.

⁷ Hornblum, *Acres of Skin*, 84.

⁸ Research subjects could be bought cheaply for experiments with little oversight. Scholar Jessica Mitford comments on this practice: “the drug companies... can buy human subjects for a fraction... according to many medical authorities- of what they would have to pay medical students or other ‘free-world’ volunteers.” Jessica Mitford, *Kind and Usual Punishment*, (New York: Vintage Books), 1973: 156.

⁹ These experiments were a national phenomenon in the 20th century. As Harriet Washington argues, “Holmesburg was no anomaly.” In a few particularly egregious examples, physician Chester M. Southam injected 396 inmates at Ohio State Prison with live cancer cells to test how a healthy body fought off the disease, inmates had heat radiation applied directly to their corneas by the Medical College of Virginia, and Tulane University psychiatrist Dr. Robert Heath intentionally selected black prisoners for dangerous psychosurgery experiments. The postwar boom of prison experimentation had little regard for prisoner wellbeing. Harriet A. Washington, *Medical Apartheid: The Dark History of Medical Experimentation on Black Americans from Colonial Times to the Present*, (New York City: Doubleday), 2006: 253.

¹⁰ An example: Frank Carey, “Prison Volunteers Wage Battle against Malaria,” *Messenger-Inquirer*, March 24, 1963.

¹¹ The Atlanta malaria study that Carey lauded was one experiment that purported to “combat” disease.

Some scholars who study racial history in the United States evaluate legal structures of inequality: identifying how they formed, who enforced them, and why they sustained over time from the end of reconstruction to the 1960s.¹² These structures were constantly rationalized and reinforced by intellectual authorities.¹³ Longstanding notions of scientific racism were bolstered through Jim Crow structures.¹⁴ Scholar Leslie Tischauser's work provides a broad overview of various oppressive barriers that African Americans faced during the Jim Crow era.¹⁵ He argues that Jim Crow created a system that suppressed African Americans and ingrained racism into American culture. The racialized nature of the Holmesburg experiments reflected this culture of racism, particularly when Dr. Kligman intentionally selected Black inmates for experiments.

Turning to the intersection of racial history and medicine, many scholars have focused on the exploitation of the Black body for medical purposes. Scholar Vanessa Northington Gamble places the Tuskegee syphilis study in relation to historical trends in race and healthcare.¹⁶ She cites instances of nonconsensual experimentation against African Americans over time that represent a systemic pattern of discrimination.¹⁷ Historian Todd Savitt examines the conditions

¹² Historian Jerrold Packard summarizes this approach, which is chronological in nature: "why it happened, how it came to be, how we justified it, and how we finally ended it." Packard's approach is a broad overview of Jim Crow, starting from the end of slavery and finishing with the passing of the Civil Rights Act in the 1960s. Jerrold M. Packard, *American Nightmare: The History of Jim Crow*, (New York: St. Martin's Press), 2003: 14.

¹³ Packard, *American Nightmare*, 154.

¹⁴ Scientific racism in the 19th/20th centuries included ideas of black physical primitivity, intellectual inferiority, and concepts of eugenics. These racist notions were ingrained into American culture and contributed to rampant nationwide dehumanization of African Americans. Packard, *American Nightmare*, 155.

¹⁵ Tischauser situates his analysis as a "reference work" with the broad scope of evaluating U.S. racial history. An important concept to these legal structures in the United States was the distinction between *de jure* and *de facto* segregation. *De jure* segregation was the legal framework while *de facto* segregation encompassed practices and historical attitudes that were not explicitly part of a legal framework but were ingrained generationally. Leslie V. Tischauser, *Landmarks of the American Mosaic: Jim Crow Laws*, (Santa Barbara: ABC-CLIO), 2012: IX & XI.

¹⁶ This racialized study occurred between 1932 and 1972 in Macon County, Alabama. Black men were denied syphilis treatment so doctors could witness how the disease progressed from onset to death. It has often been cited as the major reason why African Americans distrust the healthcare industry, although Gamble disagrees with this argument. She dispels the notion that the Tuskegee Study was solely responsible for African Americans distrusting healthcare. Vanessa Northington Gamble, "Under the Shadow of Tuskegee: African Americans and Health Care," *American Journal of Public Health* 87, no. 11 November 1997: 1773.

¹⁷ Gamble's examples are scattered within widely different contexts. Some were medical procedures, like J. Marion Sims's painful vesicovaginal fistula repairs on slave women in the 19th century. Others involved the

and structures that cultivated acceptance of nonconsensual experimentation on Black bodies in the antebellum South.¹⁸ Stephen Kenny analyzes a visual pathology image collection from 19th-century American surgeon Rudolph Matas.¹⁹ While these three examples approach race and medicine from different time periods and viewpoints, they arrive at similar conclusions that racialized experimentation has been a systemic pattern in American history. Holmesburg's experiments continued this exploitative trend.

Other scholars focus on ethical issues associated with human experimentation.²⁰ Medical historian David Rothman evaluates why rules of experimentation changed over time, and how bioethical standards emerged in the 1970s.²¹ Susan Lederer provides a comprehensive history on human experimentation in the United States in the first half of the 20th century, grappling with ambiguities in what was allowed by the medical establishment.²² There is extensive scholarship

commodification of black bodies, such as so-called "night doctors" that stole living and dead bodies to sell as medical specimens. Finally, some were controlled experiments, such as the infamous Tuskegee Study.

¹⁸ Savitt argues that black bodies, which were commonly referred to as specimens in the antebellum South, were more readily available for physicians to use because of both their physical visibility (skin color) and legal invisibility in society (as slaves). These two characteristics made them vulnerable for exploitation. Todd Savitt, "The Use of Blacks for Medical Experimentation and Demonstration in the Old South," *Journal of Southern History* 48, no. 3 (August 1982): 331-348.

¹⁹ Stephen C. Kenny, "Capturing Racial Pathology: American Medical Photography in the Era of Jim Crow," *American Journal of Public Health* 110, no. 1 (2020): 75-83.

²⁰ Anna Mastroianni and Jeffrey Kahn concentrate on a particular subsection of the 1997 *Advisory Committee on Human Radiation Experiments*' report to explore the U.S government's history of support for ethically questionable research. This report, while outside Holmesburg's time period, is indirectly relevant to this paper because the prison was a site for radiation experiments. Anna Mastroianni and Jeffrey Kahn, "Remedies for Human Subjects of Cold War Research: Recommendations of Advisory Committee," *Journal of Law, Medicine, and Ethics* 24, no. 2 (Summer 1996): 118-126.

²¹ "Bedside ethics" involves using a teaching-by-example approach from physicians to teach medical ethics. This style did not have broad ethical rules but was taught case by case for individual patients. Rothman compares the physicians' goals with those of outside voices in the shift to bioethics (U.S. government-created binding set of ethical rules) over time. David J. Rothman, *Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making*, (Oxfordshire: Taylor & Francis), 2017: 4 & 9.

²² Lederer also tracks the shifts in public perception of the medical community over time. She further notes that an emerging utilitarian ethic linked with its success and that there was an intentional effort to suppress voices against human experimentation. Susan Lederer, *Subjected to Science: Human Experimentation in America before the Second World War*, (Baltimore: John Hopkins University Press), 1995.

dedicated to human experimentation and ethics.²³ This paper will demonstrate that the Holmesburg Prison experiments represented central issues within these ethical debates.

Some scholars of prison experimentation have evaluated the efficacy of regulations, alongside ethical considerations. Karamet Reiter concentrates on the persistent contradictions between prisoner rights and experimental regulations. He notes that clear standards for prison research did not exist prior to 1976, when details about human rights abuses in prisons went public and forced the U.S. government to release new recommendations.²⁴ Reiter comments on the prevalence of non-therapeutic experimentation in prisons, in which the research did not benefit the subject.²⁵ This type of research was prevalent at Holmesburg. While there is a vast scholarship on prison experimentation, work on this facility itself has been relatively limited.²⁶

Historian Allen Hornblum offers the most extensive analysis of Holmesburg's experiments to date.²⁷ He provides a broad overview of them and highlights how Dr. Albert Kligman abused his power. His analysis frames Holmesburg as a continuation of a pattern of exploitative human experimentation practices in the United States. Hornblum, however, generally does not focus on racial considerations at Holmesburg. He mentions the racialized nature of the experiments in passing, but his work prioritizes their background and historical trajectory. Other scholars concentrate on Holmesburg's racial dynamics primarily.

²³ For other examples of research on human experimentation, see Paul M. McNeill, *The Ethics and Politics of Human Experimentation*, (Hong Kong: Cambridge University Press), 1993. & Jay Katz, *Experimentation with Human Beings: The Authority of the Investigator, Subject, Professions, and State in the Human Experimentation Process*, (New York City: Russell Sage Foundation), 1972.

²⁴ Karamet Reiter, "Experimentation on Prisoners: Persistent Dilemmas in Rights and Regulations," *California Law Review* 97, no. 2 (April 2009): 507.

²⁵ Reiter, "Experimentation on Prisoners," 510.

²⁶ I cited only one example here because the way Reiter structures his analysis provides a great transition to Allen Hornblum's work on Holmesburg prison experimentation. Two additional scholars whose works either focus on or intersect with prison experimentation, issues of regulation, and ethical considerations include Eileen Welsome, *The Plutonium Files*, New York: Random House, 1999. & Harold Edgar, "The Institutional Review Board and Beyond: Future Challenges to the Ethics of Human Experimentation," *Milbank Quarterly* 73, no. 4 (1995): 489-506.

²⁷ Allen M. Hornblum, *Acres of Skin: Human Experiments at Holmesburg Prison*, (Oxfordshire: Taylor & Francis Group), 1998.

Two scholars, Harriet Washington and Jennifer MacLure, prioritize the racialized nature of the Holmesburg experiments. Their vantage points, however, are not the same. Washington's book provides a historical overview of nonconsensual experiments on African Americans, arguing that they constituted a pattern of systemic exploitation over time.²⁸ Her book is not mainly about Holmesburg, but she provides an extensive chapter devoted to prison experimentation, with it being the case study. She contends that Black prisoners were pathologized and subjected intentionally to Kligman's most painful experiments.²⁹ Similarly to Hornblum, Washington explains that the doctor and his associates exploited prison dynamics to their benefit.³⁰ Jennifer MacLure takes a theoretical approach to Holmesburg, mapping out a philosophical analysis of a racialized "colonial logic."³¹ She derives this from the "blind spot" in which Americans envisioned their research as being more ethical than similar practices conducted by Nazis during World War II.³² These studies demonstrate that an underdeveloped scholarship does not mean less originality. Although Holmesburg has been analyzed by just three scholars, the themes they focus on are all distinct: ethics, racial considerations, and a philosophical theory.

²⁸ Harriet A. Washington, *Medical Apartheid: The Dark History of Medical Experimentation on Black Americans from Colonial Times to the Present*, (New York City: Doubleday), 2006.

²⁹ Washington, *Medical Apartheid*, 244-270.

³⁰ One important example of this was exploiting a prisoners' need for affection. The laboratory offered a prisoner the ability to interact with people, and no matter how warped it was, this socialization was often favored over the alternative in solitary confinement. Washington, *Medical Apartheid*, 263.

³¹ MacLure argues that prisoners are a population considered to be "waste" and this reclassification of prisoners as natural resources dismisses their humanity. This dehumanization and apathy from the American public towards prisoners bolstered researchers' unregulated access to Holmesburg inmates with little oversight. Jennifer MacLure, "Unnatural Resources: The Colonial Logic of the Holmesburg Prison Experiments," *The Journal of Medical Humanities* 41, no. 3 (2020): 1 & 5.

³² This comparison with Nazi research is one that several scholars have noted. One line of defense from the Nazis during the Nuremberg Trials for their experimentation was that the United States had been using similar tactics for decades. Washington, *Medical Apartheid*, 258. MacLure considers how the racist notion of black primitivity categorizes blacks among nature rather than as humans. She argues that this conflation in turn provided justification for blatant dehumanization of African Americans and exploitation of Holmesburg prisoners. Although MacLure does not state it directly, this trajectory she outlines is a philosophical concept known as reification. MacLure suggests that people are taking an abstract concept, personhood, and warping it into something physical, a natural resource (waste). Taking an abstract concept and making it a physical thing is the process of reification.

Kligman's rise to fame reflected a nationwide pattern of support for prison medical research. This paper will evaluate the Holmesburg experiments from the angle of their perception in the media and the medical establishment. It will further build upon previous scholarship to contend that the experiments were unethical and racialized. Through analyzing media accounts and Kligman's own journal articles, I diverge from other scholars by examining how Kligman himself viewed his work and demonstrating that the American public embraced him. The language of these sources shows a pattern of unequivocal support for Kligman's work; these experiments were not just a dirty secret at the time. I will argue that Holmesburg's experiments were widely accepted and praised by both the media and the medical establishment and that Kligman's reputation made him a popular figure professionally and publicly. Once American public opinion went against human experimentation in the 1970s, his work at Holmesburg ended, paralleling the fall of the prison research industry, while his personal reputation was unaffected.

Dr. Albert Kligman began his research at Holmesburg Prison in Philadelphia in 1951 after he was brought in to investigate an outbreak of Athlete's foot. He had already amassed a following and published numerous articles on dermatological topics.³³ The medical establishment when Kligman received his training had no issues with using disabled and incarcerated populations for research projects. He was trained in an environment where he saw potential for success in exploiting vulnerable people.³⁴ The doctor had previously used human populations for unethical experiments and not only did he escape criticism for his negligence, but the medical establishment widely praised him for his work.³⁵ The prison superintendent at the

³³ Hornblum, *Acres of Skin*, 33.

³⁴ Hornblum, *Acres of Skin*, 35.

³⁵ Kligman studied ringworm in the 1940s by rubbing it onto the heads of institutionalized disabled children. These studies precipitated his arrival to Holmesburg because ringworm and Athlete's foot are related conditions, according to Hornblum. *Acres of Skin*, 34.

time Kligman was hired, Frederick Baldi, was himself a physician working within the medical establishment.

The culture within the prison provided a medium for Kligman to conduct research without oversight. That Holmesburg had a history of wardens abusing their power unchecked through violent disciplinary practices guaranteed that he would rarely be challenged for his treatment of prisoners.³⁶ Inmates knew the prison's reputation for violence, and Kligman could exploit their fears of it to convince them to enroll in his experiments.³⁷ The majority of prisoners at Holmesburg were unsentenced prisoners awaiting trial who could not afford bail.³⁸ This was another factor of Holmesburg's culture that made finding subjects easy for Kligman. He knew that inmates were desperate for bail money. When prisoners would resist cooperation, doctors on staff upped the pay; money was used as a method to facilitate abusive experimental practices.³⁹ Researchers working for Kligman's lab often inaccurately explained to subjects what was happening to them, an intentional neglect of informed consent principles.⁴⁰ Furthermore, Black prisoners were often given less desirable, more dangerous tests with lower pay.⁴¹ From the beginning of his tenure at Holmesburg, Kligman was intentional in racializing his experiments.

In the 1960s, Kligman's commercial appeal rose rapidly. He gained access to more government contacts and corporate backing for studies. His experiments were mainly non-therapeutic. He researched new dermatological products including lotions, creams, and acne

³⁶ An example of an abusive punishment at Holmesburg was the "Bake-Oven" deaths of 1938, in which prisoners were placed into a cell that was so hot that they were incinerated. Wardens were not punished for this action. This "predatory" environment changed little in the postwar period when Kligman arrived at Holmesburg. Hornblum, *Acres of Skin*, 33.

³⁷ Washington, *Medical Apartheid*, 262.

³⁸ Washington, *Medical Apartheid*, 261.

³⁹ An example was a painful procedure that removed the fingernails of prisoners. Some prisoners initially hesitated, but once the pay was increased, they were coerced into participating. Hornblum, *Acres of Skin*, 15.

⁴⁰ Hornblum, *Acres of Skin*, 26.

⁴¹ *Ibid.* 16.

medications. One of the most common tests was the patch test: hospital tape was aligned on an inmate's back in a certain fashion to create a grid of 20 squares, in which a lotion was applied. Each square was then exposed to a different temperature via a sunlamp for a time interval between 15 and 30 minutes. Afterwards, the patches were inspected for blistering and adverse reactions, with some leaving painful scars.⁴² Often his work was government-backed, such as the Army experiments in which the University of Pennsylvania built "a special climate chamber...in one of the prison cells" where the temperature could be "raised to that of an African jungle or lowered to almost zero."⁴³ Kligman's apparatus in the 1960s also expanded to include more risky initiatives such as Dioxin, radiation, and even the CIA's MK Ultra experiments.⁴⁴ An extensive network of prison experimentation throughout the United States endorsed by private and government funding, a supportive medical establishment, and prison administration officials eager to form lucrative partnerships were all factors that contributed to Kligman's rise to fame at Holmesburg during the 1960s. Throughout this decade, drug companies raced to acquire friendly relationships with doctors like Kligman who had prison practices. Phase I studies were critical to the development of new pharmaceutical products and some companies were willing to invest sizable sums to enhance their existing prison testing programs.⁴⁵

In the 1970s, Kligman's success faltered as the nation began to criticize prison experimentation after details of the Tuskegee Syphilis study went public. This triggered an ethical review of all human experiments in the United States.⁴⁶ In this decade, media coverage

⁴² Hornblum, *Acres of Skin*, 9.

⁴³ Ibid. 47.

⁴⁴ Ibid. 46. In these tests between 1953 and 1964, the CIA gave participants dangerous hallucinatory drugs with the goal of finding an effective combination that would control the minds of suspects during interrogations.

⁴⁵ Phase I is the first of a three-phase federal government standard for controlled experiments. It tested "How safe is this drug?" Prison populations were considered the perfect group for the phase I trials because they were "healthy volunteers" and were expendable. Washington, *Medical Apartheid*, 246.

⁴⁶ Hornblum, *Acres of Skin*, 66.

switched from being overwhelmingly positive to somewhat critical. Reporters exposed various examples of unethical human experimentation, forcing the government to step in and hold Congressional hearings. Kligman's laboratory was shut down within this national purge of human experimentation in 1974.⁴⁷ A positive reputation, both publicly through the media and in the medical establishment, was crucial for Kligman's success at Holmesburg Prison from 1951-1974. As the sources in this paper will demonstrate, his peaks in popularity in the 1950s and 1960s paralleled the support of medical research nationally. Once this positive view towards prison experimentation shifted to criticism, his research success at Holmesburg quickly waned.

In the 1950s and 1960s, media accounts on prison research were overwhelmingly positive. They lauded inmate "volunteers" for their contributions to science and neglected ethical considerations. A 1956 *New York Times* article praised participants who "volunteered" for a study in which they were injected with live cancer cells.⁴⁸ The inmates were described as "combatants" in a war on cancer.⁴⁹ The word "combatants" evoked war as if the inmates were "sacrificing" themselves to defeat the "enemy" of cancer.⁵⁰ This laudatory and patriotic tone was not uncommon. A 1963 article titled "Prison Volunteers Wage a Battle against Malaria," alluded to war in the title itself. Reporter Frank Carey commended inmate participants at an Atlanta Penitentiary who "voluntarily" exposed themselves to mosquitoes to "[write] a bright new chapter in the annals of medicine."⁵¹ Other articles were not explicitly patriotic, but their support of ongoing research and disregard of ethical considerations remained the same. A *TIME* piece from 1957 piqued readers' curiosity by describing the injection of live cancer cells into

⁴⁷ Ibid.

⁴⁸ "Convicts to Get Cancer Injection," *New York Times*, May 23, 1956.

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ Frank Carey, "Prison Volunteers Wage Battle Against Malaria," *Messenger-Inquirer*, March 24, 1963.

“volunteer” inmates at a Columbus, Ohio prison by Dr. Chester Southam.⁵² It gave a layman’s overview of the experiments, entirely bypassing the gross ethical negligence of injecting live cancer cells into otherwise healthy human beings. This formula of surface level explanation and explicit praise showed up in many media accounts on Holmesburg as well.

In 1960, journalist Burton Chardak, in an article for *The Sunday Bulletin* called “Prisoners Aid Research, 75% Act as Guinea Pigs,” reported on Kligman’s Holmesburg laboratory setup.⁵³ Chardak provided an overview of ongoing experiments and procedures used for administering them. The piece curiously opened with a quote from a sign at Kligman’s clinic in the prison: “pill test men are subject to mouth check.”⁵⁴ This sentence spoke to the coercive nature of these experiments. Inmates were given random pills with unknown side effects and had to swallow them so that researchers could document any adverse reactions. Chardak briefly explained the procedure the “pill swallows” endured to introduce Holmesburg to his readers. He failed to acknowledge any risks involved for the prisoners, choosing to instead praise the lab’s “generosity” for paying the inmates: “last year the inmates earned a total of \$73,253 by volunteering to take pills, get poison ivy, and use creams and salves... some prisoners have saved a fair-sized nest egg which they’ll crack when released.”⁵⁵ Someone reading this article in 1960 may have thought that the prisoners at Holmesburg were rich, considering the use of the phrase “nest egg.” Chardak made a misleading claim, however, because \$73,000 when broken down between around 800 inmates (assuming his assertion of 75% participation out of 1,100 inmates was accurate) would be around eighty-five to ninety dollars per prisoner. That was far from a “nest egg” amount then, even accounting for inflation. This deceptive statement about

⁵² “Cancer Volunteers,” *TIME*, February 25, 1957.

⁵³ Burton Chardak, “Prisoners Aid Research, 75 Percent Act as Medical Guinea Pigs,” *The Sunday Bulletin*, September 18, 1960.

⁵⁴ *Ibid.*

⁵⁵ *Ibid.*

payments was used to praise the experiments. Later in the article, Chardak interviewed Kligman, who was honest about his views on Holmesburg Prison as a testing space: “we know where they are, what they’re doing, what they’re eating; and if they’re giving pills six times a day, we know they’re taken.”⁵⁶ The doctor saw the prison as an environment where he could easily control the prisoners and administer any test he wanted. This laboratory provided a lockdown setting where he could conduct many trials with various caustic products. Chardak also noted other ongoing experiments, including hair growth creams, blood tests, and biopsies.⁵⁷ He further described what researchers were testing in recent experiments and how subjects in the Holmesburg laboratory stood out from other inmates:

Those in the program are easily spotted. They wear stripes of adhesive on the arms, legs, and back, or have small plastic cups bandaged on the skin. They are testing various drugs such as “mycins” for allergic reactions. Drugs sensitive to the skin are liable for reactions when taken by mouth. The skin makes a good predictor.⁵⁸

This detailed explanation provided readers with a revealing description of Holmesburg. Chardak used words that evoke negative connotations of pain such as “allergic,” “sensitive,” and “reactions” in this passage yet neglected to define risks to the “volunteer” prisoners used in these experiments. This tendency to explicitly praise Kligman’s work while simultaneously ignoring potential harmful effects to the inmates was a trend among journalists reporting on Holmesburg.

In 1962, a reporter for the *Philadelphia Bulletin* described the Holmesburg experiments in which “voluntary subjects” participated in a study funded by the University of Pennsylvania’s Department of Dermatology.⁵⁹ The consistent use of the term “volunteer” was puzzling

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ “100 Volunteers Will Do Time in Prison Climate Chamber,” *Philadelphia Bulletin*, October 10, 1962.

considering that inmates at Holmesburg had few opportunities to make their own choices, a concept critical to volunteerism. Hornblum noted reasons why inmates “volunteered” for studies:

According to several national studies on the subject of human experimentation in penal facilities, reasons given by inmates for volunteering for such experiments, apart from money, were: the expectation of better food, cleaner and more comfortable living quarters, patriotic or altruistic feelings, a desire to aid scientific discovery, a brief reprieve from the terminal boredom or threats of violence on the cell block, and the hope of a sentence reduction.⁶⁰

In this article, the experiment referenced “[gave] prisoners a chance to earn money.”⁶¹ The author noted that Kligman worked to inject viruses into the skin of “prisoner volunteers” with Donald Pillsbury, chairman of the University of Pennsylvania Medical School’s Department of Dermatology at the time.⁶² They tested, in Pillsbury’s words, “the effects of environment on skin function and skin bacteria.”⁶³ The author, unsurprisingly, dismissed the ethical dilemmas of injecting human beings with live viruses. They instead chose to describe to readers a shiny new climate chamber that would help the University of Pennsylvania further study the effects of the irritants on the skin. The author also interviewed Edward Frederick, superintendent of Philadelphia prisons at the time, who argued that “there [would] be little danger to the prisoners” while also acknowledging that prisoners “act[ed] as guinea pigs in various tests.”⁶⁴ This term just seemed to be a way to categorize the inmates. It was noteworthy, however, that Frederick understood Holmesburg Prison “volunteers” were being subjected to potentially risky experiments but chose to endorse their “safety” publicly anyway. This contradictory behavior was common among Holmesburg personnel and reporters rarely challenged their statements.

⁶⁰ Hornblum, *Acres of Skin*, 22.

⁶¹ “100 Volunteers Will Do Time in Prison Climate Chamber,” *Philadelphia Bulletin*, October 10, 1962.

⁶² *Ibid.*

⁶³ *Ibid.*

⁶⁴ *Ibid.*

In a February 1966 article in the *Philadelphia Bulletin* titled “Prisoners Volunteer to Save Lives,” journalist Adolph Katz provided a similar dismissal of ethical considerations.⁶⁵ He offered one of the most detailed media depictions of the experimental setup at Holmesburg. Katz discussed the differing conditions that prisoners were subjected to in the laboratory. Some were involved with taking blood samples and studying specimens under a microscope. Most of the prisoners were used in experiments themselves, including a man described in solitary confinement in the following excerpt:

A 23-year old prisoner sits in his prison cell, which is fitted into a laboratory, and studies samples under a microscope. In another cell, bulging with test instruments, a second youth is also engaged in laboratory work. He appears clean cut, industrious, and intelligent. . . One man sits in an isolation cell only six feet wide and ten feet long, his head bowed and his chin resting on hands propped up on his knees. He is virtually motionless.⁶⁶

This language suggested that the men involved in lab work had a less physically harmful working environment than those in the experiments. Katz’ tone indicated he was surprised that the prisoners in lab coats were clean-cut and intelligent, implying that he had a preconceived notion that most prisoners were unintelligent. The author interviewed Kligman, who was honest about his disregard for the prisoners’ humanity: “All I saw before me were acres of skin, the dermatologist, a blunt-spoken man, declared. It was like a farmer seeing a fertile field for the first time. [They were] an anthropoid colony, mainly healthy, which wasn’t going anywhere.”⁶⁷ He compared people to crops, and most disturbingly, in using the term “anthropoid colony,” likened the prisoners to apes. He expressed excitement that he had a group of specimens to experiment on while calling them monkeys. With the word “colony,” Kligman positioned

⁶⁵ Adolph Katz, “Prisoners Volunteer to Save Lives,” *Philadelphia Bulletin*, February 27, 1966.

⁶⁶ Ibid.

⁶⁷ Ibid.

himself as a colonizer who was taking control of a group of animals for his benefit. Katz did not criticize Kligman's statement, instead referring to the doctor as "blunt-spoken."

Katz additionally noted the ethical tradition of therapeutic experimentation in which the subject benefits from the treatment. Kligman admitted that his experiments diverged from this principle: "We had an ethical problem... How much right do you have to cause risk to a prisoner in medical tests from which he has no direct benefit... all the prisoner taking part in a test has is money."⁶⁸ This money, according to Kligman, facilitated his full access to the prisoner's body for whatever purpose he wanted. The doctor bragged to Katz about severely malnourishing prisoners by feeding them a five gram of fat diet and mocked their reactions to this "treatment:"

A prison is the right place for such a test... How can you do a test like this on the outside-limiting a person to five grams of fat a day. We fed these men a milk-like emulsion. For six long months they had to take this lousy fluid. Now eating is one of the major pleasures of life. Suddenly you take all taste away from the men. They had all kinds of dreams [and] fantasies.⁶⁹

He hid nothing because he knew that the probability was low that someone would challenge him, especially considering that the medical establishment personnel who ran Holmesburg supported him. Kligman further described punishing a prisoner who violated protocol by not paying him:

One guy couldn't take it after five months. Somewhere he got an onion and ate it. For him it was a paradisaical experience after drinking that awful stuff. We discovered it and refused to pay him because the onion ruined the value of his test. Just one lousy onion deprived him of his money. He became violent. But we had to keep discipline. The man was just beside himself with rage.⁷⁰

Kligman sadistically demonstrated his belief that the payment gave him the power to do anything to the prisoner. The doctor completely disregarded the inmate's wellbeing and mocked

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ Ibid.

his emotional reaction to losing his payment. The animalistic imagery was clear here; the prisoner's only value to Kligman was for test results, and once protocol was broken, the doctor had no qualms about sending him back in his cell without pay. With few medical records existing from the experiments because they were destroyed, this article provided an unedited perspective on Kligman's views towards Holmesburg inmates in his own blistering words.

In 1963, journalist Anne Selby wrote with a tone that followed similar themes when describing experiments at Holmesburg.⁷¹ She interviewed Kligman, who directly compared the fight of disease to warfare: "this [experiment] is a program for national defense."⁷² The doctor evoked this common warfare trope while introducing his new experiment. Selby lauded Kligman's study of "the effects of poisonous vapors" on the skin, writing: "when American soldiers- and civilians- are better protected from the effects of chemical warfare, it will be thanks to a University of Pennsylvania doctor and several dozen inmate volunteers at Holmesburg Prison."⁷³ Selby also described a machine that created special radioactive isotopes for skin injections. She claimed that "limited" amounts of these chemicals would be administered to inmates.⁷⁴ Kligman in his interview noted the purpose of the study in layman's terms and suggested that it could benefit the United States in the future: "Our objective is to discover what we need to do to prevent the vapors from getting into the system."⁷⁵ What he failed to mention, unsurprisingly, was the non-therapeutic nature of the experiment and its potential risks to inmates' bodies. A warped utilitarian ethic, in which the ends of learning more about the effects

⁷¹ Anne Selby, "Holmesburg Convicts Aid Medical Research," *Philadelphia Inquirer*, September 22, 1963.

⁷² Ibid.

⁷³ Ibid.

⁷⁴ A noteworthy argument about the fallacy of prisoner "volunteering" from Harriet Washington: Critics who argue that prisoners were not coerced "fail to take into account the coercive features of the prison's special environment. The hell of prison life made the research laboratory, feared and abhorred by African Americans on the outside, an irresistible haven, even a life-support unit, for the African American prisoner." *Medical Apartheid*, 261.

⁷⁵ Anne Selby, "Holmesburg Convicts Aid Medical Research," *Philadelphia Inquirer*, September 22, 1963.

of radiation on the skin justified these dangerous means, was the doctor's philosophy. Selby later explained that the prisoners were paid and noted that fifty experiments in addition to this one were ongoing.⁷⁶

Kligman also asserted in the interview that 80% of the prison population at Holmesburg had volunteered for research.⁷⁷ This percentage seems exaggerated, but it likely was true for two reasons. Considering Kligman's bluntness in previous interviews, there would be no reason to assume he lied here. Furthermore, the "100 volunteers" article analyzed earlier in this paper stated that ~900 out of 1100 inmates had volunteered for experiments in the past year.⁷⁸ This percentage is around 80%. Considering that the "100 volunteers" article was from 1962 and Selby's from 1963, this similarity in volunteering percentages provides an additional form of verification that Kligman told the truth. Clearly, the combination of the monetary incentive, refuge from meal hall physical violence, and need for affection, all reasons for "volunteering" identified by Hornblum and prison studies, successfully facilitated recruitment of subjects at Holmesburg. Kligman's research lab in the 1960s, as described by Selby, Katz, and others, was an enterprise; it received funding from various government entities and a private university; and it conducted a variety of different experiments, all with little concern for prisoner wellbeing.⁷⁹ At the end of her article, Selby asserted that Kligman's experiment capacity was increasing: "If [the doctor] has his way there will soon be three trailers inside the wall. And they'll be filled with laboratory equipment for new studies."⁸⁰ Despite potential for ethical violations within these

⁷⁶ Ibid.

⁷⁷ Ibid.

⁷⁸ Ibid.

⁷⁹ He worked for the CIA, U.S. Army, among others. Washington, *Medical Apartheid*, 250.

⁸⁰ Anne Selby, "Holmesburg Convicts Aid Medical Research," *Philadelphia Inquirer*, September 22, 1963.

studies, Kligman's private and government donors chose to neglect these possible human costs and the doctor greatly expanded his laboratory testing capacity at Holmesburg in the 1960s.

Despite receiving these laboratory expansions, Kligman was often dependent on his established reputation, rather than his research skills, to grow his success at Holmesburg. One major piece of evidence for this comes from Allen Hornblum. Many of Kligman's experiments in the 1960s contained methodological inaccuracies that were ignored.⁸¹ Thus, having sound research skills could not be a full explanation for his popularity. Further evidence that his reputation in part facilitated his success as a researcher was from the adverse effects of a 1966 FDA incident on his career. The media's positive view on Kligman's medical research was temporarily blighted by one action despite years of ongoing experimentation. Morton Mintz, writing for the *Philadelphia Inquirer* in 1966, broke the news to the public.⁸² Kligman was banned by the FDA from research at Holmesburg due to "alleged discrepancies found in certain reports by Dr. Kligman and from his three laboratories, located in Holmesburg Prison."⁸³ The issues the FDA raised were mainly about documentation errors, rather than a critique of potential harms to the inmates. Mintz does mention, however, that the FDA sounded alarm over the adverse effects of Dimethyl Sulfoxide (DMSO), a chemical that was originally marketed as a "cure all."⁸⁴ He also described that Kligman's recent studies on this dangerous substance were funded by the government, suggesting an inconsistent messaging between agencies. Mintz noted that Kligman held a position at the time as a consultant for the *American Medical Association's* "Council on Drugs."⁸⁵ This job was in jeopardy due to the testing ban because Kligman's

⁸¹ Hornblum, *Acres of Skin*, 58.

⁸² Morton Mintz, "FDA Blacklists Professor Over Test Data," *The Philadelphia Inquirer*, July 24, 1966.

⁸³ *Ibid.*

⁸⁴ *Ibid.*

⁸⁵ *Ibid.*

laboratories could no longer receive experimental drugs.⁸⁶ Mintz's editorial was one of the few examples of media criticism of Dr. Kligman during the peak of his popularity in the 1960s.

Mintz explained certain data inaccuracies in detail, such as when Kligman covered up the removal of a prisoner from an experiment who was exposed to DMSO:

According to Dr. Kligman, the key FDA objections related to a paragraph in his article on DMSO testing in the *Journal of the AMA* for last Sept. 13 [1965] and which he says he intends to correct in a letter to the publication... [The] FDA [further] charged- and Dr. Kligman acknowledged- that he failed to report that DMSO was discontinued with one prisoner because of several adverse effects.⁸⁷

Based on this passage, Mintz clearly challenged Kligman on the truth behind the FDA ban.

Considering his previous interactions with reporters, he would likely not address any experimental risks to prisoners unless he was directly prompted. While Mintz did not explicitly criticize Kligman's inhumanity, he found fault with the experiment on medical ethics grounds. Criticism like this was rare in media accounts on Holmesburg in the 1960s. Kligman later in his interview dismissed the allegations as "absurd" and was coordinating meetings with FDA officials to get his case reviewed.⁸⁸

His credentials were restored months later; however, the brief interruption led to immediate financial ramifications at Holmesburg.⁸⁹ Solomon McBride, Holmesburg facility administrator, noted in a newspaper interview with reporter Gary Brooten that the laboratory enterprise would "just dry up" if a reinstatement of Kligman did not occur quickly.⁹⁰ Besides the clear monetary losses, prison superintendent Edward Hendrick suggested how "medically

⁸⁶ Ibid.

⁸⁷ Ibid.

⁸⁸ Ibid.

⁸⁹ Gary Brooten, "FDA Ban on Drug Tests by U of P Specialist Imperils Research Program at Holmesburg Prison," *The Sunday Bulletin*, July 31, 1966.

⁹⁰ Ibid.

valuable” the Holmesburg experiments were to society and implied it would be a big loss if they were cut permanently.⁹¹ According to an article by *Philadelphia Bulletin* reporter David Cleary, the ban originated from a complaint by Dr. Frances Kelsey, a reviewer for the FDA, who questioned how Kligman could have disclosed 153 studies in the past few years, while also conducting accurate and safe research under “mass production conditions” at Holmesburg.⁹² Kligman was lucky that his credentials at the prison were reinstated, as a ban from testing would have likely tanked his public reputation. Despite building up experience over fifteen years, one ban from the FDA could have destroyed his Holmesburg career, because his success as a researcher was in part due to his national reputation.⁹³ The fact that one FDA ban would have drastically harmed Kligman’s work as a scientist showed he was vulnerable to changes in his public reputation. His popularity was not only impacted by the American media, however; the medical establishment also played a role in it during his tenure at Holmesburg.

Kligman published hundreds of articles in various medical journals during his years at Holmesburg. The publication number itself indicated that he was respected among the medical community. Within these articles, he openly penned about his unethical nontherapeutic experiments. Furthermore, the language Kligman used in describing his methodologies often pointed to intentional racialization in his subject selections. In 1958, Kligman along with another physician co-authored a paper on ectodermotropic virus inoculation.⁹⁴ While the process of inoculation itself may not be inherently harmful, Kligman intentionally ignored any discussion of the ethical issues in this study. When talking about difficulties in the experiment, he focused

⁹¹ Ibid.

⁹² David M. Cleary, “U of P Doctor is Reinstated as Drug Tester by US Agency,” *Philadelphia Bulletin*, August 25, 1966.

⁹³ Hornblum called his reinstatement an act of “divine intervention.” This implied that this process was unusually quick, as the FDA usually took a long time to review appeals. Hornblum, *Acres of Skin*, 56.

⁹⁴ Herbert Goldschmidt, and Albert M. Kligman, “Experimental Inoculation of Humans with Ectodermotropic Viruses,” *Journal of Investigative Dermatology* 31, no. 3 (September 1958): 175-182.

exclusively on the science and avoided any human angle. He failed to consider the possible harm on the person being inoculated. The opening sentence portrayed this theme: “students of human infectious disease have a much greater opportunity to gain an understanding of pathogenesis when the disease can be experimentally reproduced in man at will.”⁹⁵ Kligman alluded to the future scientific benefit of implanting a disease into a person while neglecting the potential ethical violations it could create. This theme of ignoring the human costs of an experiment paralleled similar rhetoric present in Holmesburg media accounts. Where his articles diverged from newspapers, however, was in explicit mentions of the racial characteristics of the inmate subjects. In this study’s methodology section, Kligman described the subjects as “healthy colored male volunteers.”⁹⁶ The term “volunteer” appeared here and did in many other Kligman publications too. What is most disturbing, however, is that the doctor openly wrote that he intentionally selected African American prisoners for virus inoculation. This statement added another layer to his experiments; they were no longer just unethical; they were also racialized.

The racialization in the ectodermotropic virus study was not an isolated example. Another publication, assessing the effects of skin depigmentation, was conducted on “the skin of adult male blacks,” according to the study’s methodology section.⁹⁷ This experiment was also intentionally racialized by the doctor. He purposely sought out Black prisoners within Holmesburg to participate as subjects. Kligman explicitly referenced the novelty of “discovering” that Black subjects were useful for researching a skin pigment condition:

One tends to think of hyperpigmentation as mainly a problem of whites until one begins to acquire experience with blacks. In the latter, the most trivial chemical and physical traumata, frequently unnoticed or unrecollectable, tend to produce persistent

⁹⁵ Goldschmidt and Kligman, “Experimental Inoculation,” 175.

⁹⁶ Ibid.

⁹⁷ Albert M. Kligman, and Ian Willis, “A New Formula for Depigmenting Human Skin,” *Archives of Dermatology* 111, no. 4 (December 1974): 40

hyperpigmentation. Extensive patch testing of black volunteers with various irritating and allergenic chemicals awakened our sensibilities to the problem of hyperpigmentation in blacks.⁹⁸

Kligman gleefully exclaimed how he found out that the condition of hyperpigmentation did not only affect white people: through conducting painful patch tests on African American subjects. He failed to address potential ethical considerations, despite writing the words “irritating” and “allergenic” in referring to his patch tests.⁹⁹ This study, published in 1974, represented that Kligman’s lack of respect for his subjects’ humanity remained consistent throughout his time at Holmesburg. Studies in 1958 and 1974 equally tormented African American subjects for the “benefit” of science, intentionally violating the Hippocratic Oath principle of “do no harm.”

Although some of Kligman’s studies do not explicitly segregate African American prisoners, they rarely implicated white “volunteers” specifically. The use of the phrase “male prison volunteers” implied similar racialization tactics. Kligman destroyed records that would confirm this, but based on prison populations in the United States at the time, it is safe to assume that there were Black subjects in these non-specified studies. In an article titled “Growth of Bacteria Under Adhesive Tapes,” from 1969, Kligman noted that the subjects were “male prison volunteers.”¹⁰⁰ The vagueness of this description declined to specify the race distribution of the participants, however, Black subjects likely played a role, considering Kligman’s tendency to conduct painful experiments like this on African Americans at Holmesburg. Two other publications, “A Method for the Measurement and Evaluation of Irritants on Human Skin,” from 1967, and “Topical Pharmacology and Toxicology of Dimethyl Sulfoxide,” from 1965,

⁹⁸ Kligman and Willis, “Depigmenting Human Skin,” 43.

⁹⁹ Ibid.

¹⁰⁰ Albert Kligman, “Growth of Bacteria Under Adhesive Tapes,” *Archives of Dermatology* 99, no. 1 (January 1969): 107.

contained similar language in their methodology sections.¹⁰¹ Kligman characterized his subject pool briefly in both articles as “adult prison volunteers,” and then proceeded to describe a scientific study that would likely cause harm, without mentioning any ethical ramifications or risks.¹⁰² Kligman’s word choice patterns in these studies and his views towards prison subjects written in his own words reinforce two important bodies of scholarship on the Holmesburg experiments; they were clearly unethical and intentionally racialized. Furthermore, the large number of publications Kligman had confirmed his positive reputation as a researcher while at Holmesburg. His popularity in medicine, however, did not end once his prison experiments stopped in 1974.

The positive reputation Dr. Kligman enjoyed expanded beyond his work at Holmesburg. A decade later after the nationwide purge against prison research ended his Holmesburg career, the doctor remained an authority figure in the dermatology community. Media accounts written in the 1980s continued to cite him as a credible source when discussing pharmaceutical products and skin conditions. A 1989 article written by Pamela Little discussing the uses of Retin-A, an acne treatment that Kligman developed, reflected this theme.¹⁰³ She advertised a forum that Kligman was leading about the product and praised its success.¹⁰⁴ In a 1986 article in the *Austin American-Statesman*, Susan Owens called him “the world’s guru on aging skin.”¹⁰⁵ Kligman transitioned from a widescale researcher at Holmesburg to being lauded as an authority for the skincare pharmaceutical industry. Author Deborah Blumenthal in 1989 wrote about the emergence of this dermatological industry in the 1980s: “[it] has undergone a striking

¹⁰¹ Albert M. Kligman, “Topical Pharmacology and Toxicology of Dimethyl Sulfoxide,” Part I. *Journal of the American Medical Association* 193, no. 10 (September 1965): 796-804.

¹⁰² Albert M. Kligman and William Wooding. “A Method for the Measurement and Evaluation of Irritants on Human Skin,” *Journal of Investigative Dermatology* 49, no. 1 (July 1967): 78-94.

¹⁰³ Pamela Little, “Still Scratching the Surface of Retin-A’s Uses,” *The Desert Sun*, November 14, 1989.

¹⁰⁴ *Ibid.*

¹⁰⁵ Susan Owens, “Skin-deep Beauty Can Last, Expert Says,” *Austin American-Statesman*, April 24, 1986.

metamorphosis from what was once regarded as the lowly field of cosmetic medicine into one of the frontiers of medical science.”¹⁰⁶ She discussed the current research on skin conditions in most of her article, for which Kligman was not a direct contributor. She did, however, cite his name directly after describing the rapid rise of dermatology. This syntactical move by Blumenthal suggested that Kligman still had a good reputation publicly and within the dermatology community, despite his shifting role from a researcher at Holmesburg in the 1960s to a pharmaceutical consultant in the 1980s. The fact that his public reputation remained positive more than ten years after his experiments at Holmesburg ended provided evidence that the national backlash against prison experimentation simply stopped his research career but had minimal effects on his personal reputation or his role as a citable medical authority.

Why did Dr. Albert Kligman enjoy a consistently positive reputation throughout his life? That is a question I kept asking myself while researching and writing for this project. This paper showed the ethical violations Kligman committed through analyzing his work in media accounts and his own dermatology publications. I argued that his experiments were not just unethical but were intentionally racialized and widely accepted by both the American media and the medical establishment. Despite the evidence against him, the medical community often continues to “turn a blind eye” to Kligman by reinforcing the pattern of praising him in a similar fashion to the Holmesburg era. When the doctor died in 2010, some reporters and medical personnel chose to praise his positive impact on the dermatology field.¹⁰⁷ Historians cannot by themselves reverse an entrenched public narrative, however, analyses like these that uncover atrocities committed

¹⁰⁶ Deborah Blumenthal, “Bold New Skin Treatments,” *New York Times*, April 16th, 1989.

¹⁰⁷ Beyond the obituary publication cited in this paper’s introduction, see Stephen Miller, “Dermatologist Tackled Acne, Wrinkles, and More,” *The Wall Street Journal*, February 23, 2010. & “Albert M. Kligman, Ph.D, M.D., Emeritus Professor, University of Pennsylvania, 1916–2010.” *The Journal of Dermatology* 37 (2010): 581-584. This Stephen Miller is the same man who has been a strong anti-immigrant voice in the Trump administration.

against widely ignored and marginalized communities are important in raising awareness.

Working on this project was simultaneously a discouraging and rewarding experience. Reading that the media and the medical establishment neglected to raise ethical considerations about Dr. Kligman's work because it was acceptable at the time to experiment on vulnerable populations was infuriating. An important question that arises from Holmesburg is the possibility of future prevention. Harriet Washington is skeptical about whether the public can prevent future ethical violations behind bars, and I am inclined to agree with her considering how prisons are currently structured in the United States today.¹⁰⁸ The amount of knowledge that the public has about how their local prisons operate is minimal and the fact that detailed ethical standards now exist for medical research cannot fully prevent violations. Some guidelines existed for research while Kligman operated at Holmesburg, but he ignored them. What prevents a scientist from neglecting them again? Even with more agencies and committees placing restrictions on researchers today, prison experiments have made a comeback.¹⁰⁹ One of the biggest takeaways from this paper is that American public opinion matters. Once the country openly criticized prison research when the Tuskegee Study was exposed, the industry was purged in the 1970s. The stronger the American public response on an issue, the higher the likelihood that more accountability occurs. People need to continue raising ethical considerations on research with prison populations. Our society must fight for what is right. Incarcerated individuals are people too and deserve to be treated with dignity even while behind bars. No person should ever be abused like an animal in the way Kligman cruelly treated his research subjects at Holmesburg.

¹⁰⁸ Washington, *Medical Apartheid*, 268.

¹⁰⁹ A quote from a 2006 article concerning the rebirth of prison experimentation: "No one knows exactly what is being done where, and there is no central agency to oversee them." Prison research is making a comeback after an initial purge in the 1970s. Considering what happened at Holmesburg, this misstep in research oversight is concerning. "Experiments with Prisoners are Recommended- with Limits," *Philadelphia Inquirer*, July 13, 2006.

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