Medical Research in Stalin’s Gulag

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SUMMARY: Recently declassified Gulag archives reveal for the first time that the Stalinist leadership established medical research laboratories in the camps. The present work offers an initial reading of the medical research conducted by and on prisoners in Stalin’s Gulag. Although Gulag science did not apparently possess the lethal character of Nazi medicine, neither was this work entirely benign. I argue that the highly constrained environment of the Stalinist camps distorted medical science. Scientists were forced to produce work agreeable to their Gulag administrators. Thus they remained silent regarding the context of mass starvation and forced labor, and often perpetuated Gulag myths concerning the nature of diseases and the threat of deceptive patients. Rather than aggressive treatment to save lives, they often engaged in clinical observations of dead or dying patients. At the same time, a few courageous scientists challenged the Gulag system in their research, in both subtle and overt ways.

KEYWORDS: medical research, Gulag, Stalin, Soviet Union, camps, starvation, vitamin deficiency, prisoners, Soviet science
The Soviet penal labor camp system reached its height in size and brutality under Joseph Stalin (1929–53). The Main Administration of Camps (glavnoi upravlenie ispravitel’no-trudovykh lagerei), whose acronym GULAG has entered the popular lexicon, was established by Stalin in 1929, and gradually dismantled by his successor, Nikita Khrushchev. The core penal institutions of the Gulag were the so-called corrective labor camps and colonies. At the time of Stalin’s death, there were roughly 2.5 million prisoners in labor camps and colonies across the eleven time zones of the Soviet Union, many in Arctic regions. Scholars believe that roughly eighteen million people passed through nearly five hundred labor camps and colonies in the Stalin years. Gulag archival sources suggest an official death toll in the area of three million, although historians concede that mortality was probably much greater. Prisoners labored in remote and inhospitable areas of the country, mining gold and nickel, felling trees, laying track, and building hydroelectric dams and airports. The more fortunate inmates fulfilled their work mandate indoors. Some of the better educated Gulag inmates, many of them “counterrevolutionary” offenders or political prisoners, worked as accountants, engineers, scientists, and doctors.¹

Recently declassified archival documents reveal for the first time that the Stalinist leadership established medical research laboratories in the camps. Health and medicine in the Gulag represents an emerging field in Soviet studies.² The nature of camp research and scientific interactions is only now coming to light.³ The present study offers a preliminary examination of camp medical research, based on a reading of scientific
studies that have been preserved in the archive of the Gulag’s main health administration or medical-sanitation department (meditsinskii-sanitarnyi otdel). The central Gulag archive contains a limited sample of research conducted in Stalin’s vast archipelago of camps, yet it is likely that these scientific documents are not atypical. Much of this research was produced in the war years and focused on illnesses that plagued both the camp and Soviet civilian populations, such as scurvy, nutritional dystrophy and pellagra, typhus, and tuberculosis. Soviet medical research on starvation diseases emerged during World War II, and took place in both civilian institutions and Stalinist camps. Many of the wartime studies focused on vitamin deficiency and starvation diseases that affected millions of camp prisoners as well as Soviet civilians, especially in the besieged city of Leningrad.

Gulag medical research often involved severely ill or dying prisoners, and in many cases the scientists were themselves prisoners. Imprisoned doctors produced studies for their camp administrators, but the work was often shared with central Gulag authorities, medical researchers at other camps, and even civilian scientists. Camp medical research had the appearance of respectability and legitimacy, as highly educated prisoner-scientists cited the work of international researchers. Yet these scientists were also constrained in their statements, treatments, and subjects of study. They maintained a conspicuous silence concerning the context of penal labor. References to camps, prisoners, starvation, or harsh physical exploitation appear veiled and rarely, if at all. Such silences were not uncommon in the Stalin years. During the war, the leader’s
speeches as well as official party newspapers failed to mention hunger and starvation, despite the devastating impact of food shortages on the population. Mainstream medical literature at the time limited its analysis of starvation to Soviet soldiers and citizens in occupied territories, and did not speak of starvation in the rear. Later, during the 1946–47 famine, use of the word “famine” was prohibited. Even the most secret governmental reports avoided the term, and Soviet doctors were instructed to mask mortality from famine. Similarly, prisoner-scientists who conducted medical research in the Stalinist camps operated in a highly constrained environment. They did not address the system of meager food rations and exhaustive physical labor as possible causes of illness.

In the present work, I focus not on the scientific value of Gulag medical research, but on the ways in which this work was shaped by the camp environment of human exploitation and penal labor. Unlike the Nazi camps, Gulag medical science did not evidently involve human experimentation or so-called mercy killing. Nonetheless, while Gulag researchers did not apparently perform medical interventions intended to kill the patient, neither were they entirely engaged in healing. Doctors and medical researchers often accumulated clinical data on dying patients. To be sure, they could do little, as they lacked basic resources. Moreover, they were not necessarily tasked with restoring the health of their diseased and dying patients, many of whom had been vilified as state enemies. Scientific research in the camps frequently involved cataloging physiological changes that occurred as bodies slowly deteriorated from starvation. Stalin’s Gulag represented what Robert Jay Lifton called “an atrocity-producing situation,” structured
such that those who worked within the institution, even the well intentioned, became associated with mass violence. Gulag scientists were situated within an atrocity-producing situation, compelled to produce research acceptable to their bosses or risk being returned to hard physical labor. Medical research in the Stalinist camps denied the presence of mass starvation, discouraged doctors from recognizing starvation illnesses too readily, and looked for ways to stretch the Gulag budget at the expense of patients. I argue here that Gulag medical science was not entirely benign. Rather, the work often served to sanitize and normalize the labor camp environment and to conceal the underlying reality of acute malnutrition and human exploitation. Thus it is especially striking that a few courageous medical researchers used their work to challenge elements of the Gulag order.

Health Sciences in the Camps

Gulag science largely recalls the so-called sharashka, where Soviet prisoners who were trained as physicists and engineers conducted defense-related work, including atomic research. The use of prison laboratories staffed by arrested members of the scientific and technical intelligentsia began as early as 1929. The origins of Gulag research coincided with the emergence of the Stalinist camp system, as inmates with scientific training were sent to remote areas lacking roads, housing, or supplies on geological expeditions to seek out oil and other natural resources. Prisoners with scientific training worked in various fields, as geologists, physicists, agronomists, and engineers. In 1938,
Lavrenty Beria, Stalin’s new head of the People’s Commissariat of Internal Affairs or NKVD, organized the formal prison science system, secret laboratories where prisoner-scientists performed intellectual labor for the state. According to Asif Siddiqi, it was a group of imprisoned scientists who first proposed the idea to the Soviet leadership. The arrested aviation designers sought the ability to conduct research, as a way of avoiding the likelihood of heavy physical labor in the camps. For imprisoned members of the scientific intelligentsia, research offered a lifeline. Work as a researcher was highly coveted in the camps, as these relatively comfortable indoor jobs offered a greater chance of survival. The Gulag’s most famous chronicler, Alexander Solzhenitsyn, attributed his own survival to the fact that he wrote “nuclear physicist” on his Gulag registration card, and was later selected to work in the sharashkas, those “tiny paradise islands” of the archipelago, as he called them, where “it was always warm, and the only work was mental work—and all of it super-secret.” Solzhenitsyn believed that the sharaska saved his life: “And so it was that I got to those paradise islands myself … and spent half my sentence on them. It’s to them I owe my survival, for I would never have lived out my whole term in the camps.”

The sharashkas represented but one type of imprisoned science in the Soviet Union. Medical research laboratories existed at many camp sites, and Gulag scientists enjoyed a degree of scholarly exchange with civilian scientists. In Stalin’s Gulag, medical researchers were charged with various tasks: to improve diet, nutrition, and disease treatment, to enable colonization of the Soviet Union’s northern territories, and to
advance the Stalinist goal of a self-financing prison labor camp system. Medical research appears to have emerged at larger camp complexes during the war, when vitamin deficiency diseases ravaged the camp population. By the end of the war, the Gulag leadership required that medical laboratories be established at all camps. In September 1945, the chief of the Gulag’s medical-sanitation department told camp health officials that the NKVD-Gulag leadership wanted all camps to have laboratories for “bacteriological and medical analysis” in order “to improve their diagnoses and treatments.”16 Gulag medical research largely focused on starvation diseases. Research laboratories in the camps worked, for example, on “the manufacture of vitamin supplements on a large scale” and the discovery of “new edible substances from food scraps as well as inedible raw materials.”17

From the 1930s to the 1950s, Gulag medical research grew steadily, and certain labor camps developed their own research facilities. In Vorkuta, prisoners in the 1930s conducted research “on memory” and without scientific publications, materials, or laboratories, but by the 1940s and 1950s, Vorkuta possessed scientific-research centers and many of the scientists were prisoners and former prisoners.18 Gulag survivor Antoni Ekart described viewing the central Pechorlag hospital in 1946, which included a medical clinic for scientific research: “There was a large conference hall and a rich specialist library. The walls were covered with diagrams and charts illustrating various scientific experiments. One room was filled with X-ray equipment. The whole set-up made a great impression on me, and it was difficult to believe that it was in a Soviet camp.” One of the
medical researchers told Ekart that the clinic “was founded to study diseases usually found in high latitudes, especially those resulting from vitamin shortages,” but research also included “the influence of Arctic climate upon the functioning of the heart, lungs, etc. Only those patients are sent to the clinic whose illness is of scientific interest. … Moscow is most interested in our work, and recently two members of the Medical Academy of the USSR paid us a visit. … Our field of research doesn’t only include medicine; we also have a botanist from Moscow and a zoologist.” Ekart asked whether the researchers were also prisoners. “Of course,” he was told. “Otherwise, they would not live in the camp.”

Gulag medical research illustrates what scholars have recently identified as the permeability of the Stalinist camps. These researchers did not operate, like the prisoners of the sharashkas, in isolated and secret archipelagos. Rather, Gulag doctors and medical scientists routinely established ties with civilian scientific and health care institutions, including military hospitals. They attended medical conferences, some organized by civilian health departments and health care institutions. They presented papers on the illnesses they frequently encountered in the camps—nutritional dystrophy, tuberculosis, malaria, typhus, and pneumonia. The relevance of Gulag medical research extended well beyond the camps, as these studies dealt with common civilian diseases and issues of general interest to the Soviet leadership. V. Ia. Chekin’s 1949 dissertation for the degree of doctor of medical sciences was published in Vorkuta under the title “Vitamin C Deficiency in Arctic Conditions.” The author, who may have been a former prisoner,
examined “the effects of heavy physical labor (the heavy labor of underground miners) on ascorbic acid metabolism,” as well as “how external factors (cold, warmth, light, ultraviolet rays, etc.) affected vitamin C metabolism in both humans and experimental animals.” The work involved acute observations (complete with disturbing photographs) of nearly eight hundred people with vitamin C deficiency, and examined how this deficiency impacted the progression and development of patients’ myriad illnesses, from kidney disease, heart disease, and malaria to tuberculosis and pneumonia. The dissertation explored the medicinal uses of ascorbic acid and wild plants of the tundra. Not just workers and hospital patients were observed, but samples of their blood, urine, and bone marrow were studied. As if to stress the normalcy of the processes and conditions under observation, as well as the ubiquity of the ailments, the author referenced works by Russian, French, German, and English scientists on the subject of vitamin C deficiency. Gulag medical research had the appearance of respectability and legitimacy, as researchers used Latin medical terms and often cited the work of international scholars.

Prisoner-doctors in Stalin’s Gulag often took pride in research they deemed beneficial to the state economy and to Soviet science. In some cases, Gulag doctors and researchers continued to work, even after their release from the camps, in fighting infectious diseases, nutritional deficiency, and other illnesses that were widespread both inside and outside the camps. One prisoner, Ekaterina Golts, served as a camp physician and also conducted medical research shortly after entering the camps. In December 1941,
she presented a paper, “Vitamin Deficiency Induced Eye Disease,” at a conference on pellagra in the city of Kniazhpogost in the Komi Autonomous Republic. Decades later, her niece took pride in Golts’s scientific work, and believed that her aunt’s legacy included contributions to science: “It’s important that something from Katia has remained. I mean, her scientific work about eye disease and nutritional dystrophy.”

Certainly, such sentiments were often justified. Given the expertise of many imprisoned scientists, one can safely assume that medical research conducted in the camps did not entirely lack scientific value.

Whether scientific investigations into the medicinal uses of natural substances and wild plants improved prisoners’ health is difficult to discern. In one study, a doctor and a botanist examined the use of wild plants in the treatment of vitamin deficiency diseases, including scurvy, and noted that while a good deal of research had been done, “on the whole, methods for preparing and using therapeutic drugs made from these [wild] plants, in the proper mixtures and dosages, have not yet emerged from the laboratory.” Similar medical investigations are described in the memoir literature, with some skepticism.

Varlam Shalamov told of his “light physical labor” job gathering dwarf cedar needles, which camp authorities believed contained vitamin C and would provide good treatment against scurvy. The Gulag survivor wrote,

The needles were hauled away to a mysterious “vitamin factory” where they were boiled down into a dark yellow viscous extract with an inexpressibly repulsive taste. … Scurvy was everywhere and dwarf cedar
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was the only medically approved cure. It was ultimately proved that this preparation was completely ineffective in the cure of scurvy and the “vitamin factory” was closed. Nevertheless, faith conquers all, and at the time many drank the stinking abomination, went away spitting, but eventually recovered from scurvy. Or they didn’t recover. Or they didn’t drink it and recovered anyway.28

Diseased Prisoners and Research Laboratories

The archives reveal that Gulag medical research encompassed a variety of studies, from the medicinal uses of wild plants to the characteristic features of scurvy. A good deal of attention was devoted to the analysis and treatment of vitamin deficiency diseases, which plagued the Gulag and were not uncommon in the Soviet civilian population as well. During the war, the Gulag reported its highest rates of mortality.29 The German invasion enabled the Stalinist regime to address the problem of civilian hunger for the first time, as starvation could now be blamed on the Nazi blockade and occupation. According to Rebecca Manley, it was during the war that “hunger became a legitimate object of medical research.”30

One of the Gulag’s scientific research laboratories (nauchno-issledovatel’skie laboratorii) operated under the medical-sanitation department of the Northern Railway camp or Sevzheldorlag.31 This scientific research laboratory organized wartime conferences in 1943–44, where doctors presented work on the nature and treatment of
various vitamin deficiency diseases. These included, for example, “The Question of Pellagra-Induced Psychosis,” “The Role of Dystrophy as a Symptom of Vitamin Deficiency Diseases,” “Mushroom Mycelium Tea as a New Source of Dietary Protein Derived from an Inedible Substance,” “Nutritional Dystrophy and Pellagra,” “Vitamin Deficiency and Colitis,” “Tuberculosis and Pellagra,” “Healing Wounds and Fractures in the Presence of Vitamin Deficiency,” and “Vitamin Deficiency Diseases and the Eyes.” At the same time, the Stalinist leadership used these scientific conferences to warn doctors not to go easy on prison laborers. One of the papers reminded doctors of their precarious position within the Gulag system and was titled “The Problem of Risk in a Doctor’s Work and His Responsibility for Incorrect Treatment.” The Northern Railway camp’s scientific research laboratory widely distributed leaflets, flyers, and bulletins with information and instructions concerning various health matters, such as the nutritional value and the therapeutic uses of vitamins C and B, wild plants and berries, turnips, and willow herb; alder cones for treating diarrhea; and animal blood as a treatment for pellagra and tuberculosis. Some were accompanied by detailed drawings to illustrate disease characteristics and symptoms, like these sketches of the bodies of patients with pellagra, scurvy, and other vitamin deficiencies from 1939 to 1942 (see Figures 1–3). A doctor in the chemical-pharmacological division described how poisonous plants, mushrooms, and berries in the areas around the North Pechorskii railroad had sickened people and animals, and caused the death of some children. He noted that people from the Caucasus who lived in the North were gathering and eating the poisonous buds of marsh
marigold (*kaluzhnitsa*), thinking they were capers. In a rare reference to the Gulag context, the doctor indicated that the camp population and the armed guards needed to be warned against putting this plant in food or rubbing it on the skin. “Anyone discovered doing this will be criminally prosecuted,” he wrote. Camp doctors had to reiterate Gulag instructions that warned prisoners against using organic substances to provoke illness.

Nutrition and vitamin deficiency represented the core subjects of study at the Northern Railway camp’s scientific research laboratory. However, camp scientists avoided mentioning the Gulag’s system of insufficient food rations and exhaustive labor as possible factors in the vitamin deficiency diseases of patients. In 1944, the Northern Railway camp’s scientific research laboratory possessed an extensive team of researchers devoted to vitamin deficiency. They encompassed six formal divisions, described as follows: clinical, pathomorphological, pathophysiological, biochemical, chemical-pharmacological, and diet and nutrition. For example, the clinical division was charged with studying ways to diagnose vitamin deficiency diseases early and, according to Gulag instructions, in a “differentiated” way; to identify and analyze the various symptoms such as lesions on the tongue, diarrhea, and kidney problems; and to examine treatments like vitamin supplements. The clinical division was also supposed to study the “influence of external physical factors on the development and course of vitamin deficiency diseases” such as barometric pressure, temperature, and sunlight. The pathomorphological division examined people with pellagra and nutritional dystrophy to analyze changes in their muscles, heart and circulation, and central and peripheral nervous system. The
biochemical division studied patients with nutritional dystrophy and pellagra to
determine, for example, changes in blood composition, blood protein levels, and blood
sugar. The diet and nutrition division was charged with, among other things, “obtaining
sterile inactive cultures of brewers yeast to be administered by injection”; “finding ways
to improve the capabilities of bakers’ flour”; and “obtaining concentrated pine extract of
no less than 500 mg in dry tablet form.” Soviet doctors believed that pine needles were
a good source of vitamin C. During the Siege of Leningrad, when scurvy was rampant in
the starving city, civilian doctors treated the disease with a vitamin drink made from pine
needles.37

Exactly how medical research laboratories first emerged is difficult to determine,
yet prisoners may have played a significant role in founding these facilities. Like the
aviation designers in Siddiqi’s study, imprisoned doctors appear to have successfully
convinced camp administrators of their value as researchers. Evidently, prisoner-
physicians advocated for medical laboratories that would enable them to fulfill their
Gulag work requirement in intellectual rather than heavy physical labor. In Komi ASSR,
the research laboratory that focused on the problem of vitamin deficiency appears to have
emerged spontaneously on the initiative of prisoner-scientists. Gulag records indicate that
a “self-identified group of physicians with an interest in scientific research” began to
study the problem of vitamin deficiency, since they were repeatedly observing the same
sorts of illnesses among prisoners.38 One of them was doctor K. M. Dubrovskii, who well
before the war had been researching treatments for vitamin deficiency. In 1941, in the
Ukhta region of the Komi republic, Dubrovskii “was the first to focus on the necessity of using canned green plants to treat vitamin deficiency.” In an effort to broaden and formalize such investigations, the director of the Northern Railway camp called for the creation of a scientific center in April 1943 devoted to the study and treatment of vitamin deficiency diseases, and made Dubrovskii the director. In all likelihood, Dubrovskii himself lobbied for the establishment of this institute.

The Northern Railway camp’s scientific research laboratory for the study of vitamin deficiency conducted its work in places where the most severely ill prisoners were located. The Gulag’s agricultural colonies, invalid camps, and sanatoria-towns (sangorodki), which detained the system’s most diseased and ailing prisoners, represented important sites for research on vitamin deficiency. A 1944 report produced under the direction of the Department of Medicine at the Main Administration of Corrective-Labor Colonies of the Soviet Union’s Ministry of Internal Affairs (MVD USSR) was titled “Results of the Scientific Research Laboratory’s Work on Studying and Combating Vitamin Deficiency at the Northern Railway Camp of the NKVD.” Vitamin deficiency diseases represented the most common ailments in the camps, and scientists explored many avenues of possible treatment.

One of the more striking treatments for vitamin deficiency diseases involved the medicinal use of animal blood. For years, Soviet scientists had been investigating the therapeutic effects of blood transfusions from animals, other human beings, and even cadavers. The 1944 plan for the scientific research institute’s food division included
“the mass production of prepared animal blood in liquid or dry tablet form, and the further development of rational methods for making tablets from dried blood.”

So significant was this area of investigation that it involved the clinical division and Dubrovskii as well, who authored a February 1944 report on “the use of prepared blood in the treatment of vitamin deficiency, tuberculosis, malaria, and other illnesses.” He stated that the treatment options for chronic illnesses like pellagra, tuberculosis, and malaria were limited by the acute shortage of nutritional supplements (such as niacin or B3, thiamine bromide or B1, and ascorbic acid or vitamin C), and the fact that, when available, these often had to be administered intravenously to severely ailing patients.

Dubrovskii argued that the blood of animals (for example, dogs, pigs, sheep, and horses) possessed “exceptional value” because the human body could easily absorb it. Animal blood also contained high quantities of fat, carbohydrate, protein, salt, iron, and vitamins A, B, and C, especially as compared with milk. Dubrovskii claimed that in 1940, he developed medicine made from prepared blood (preparirovannaia krov’) that was used to successfully treat patients with pellagra and nutritional dystrophy. It is possible that Dubrovskii’s “prepared blood” was derived, in part, from human subjects. His examples involved the blood of animals; however, his instructions to doctors called for the use of “suitable blood of any warm-blooded animal” so long as it lacked infectious diseases.

The Silences and Inhumanity of Camp Science
In many ways, Gulag medical research does not appear unusual. It was conducted by trained specialists and incorporated treatments and methods that were common among civilian doctors. Nonetheless, the Gulag environment limited and distorted medical science. Scientists had to produce medical reports that validated the Gulag order. To protect themselves against a return to heavy physical labor, prisoner-scientists were compelled to conduct research acceptable to camp authorities. Constraints on research in the “atrocities-producing situation” of the Gulag are illustrated by the fact that references to strenuous physical labor appear rarely. Any indication of the patients’ status as prisoners is difficult to detect. The Gulag environment seems purposefully erased, perhaps due to the fact that some of these studies were shared with civilian scientists. This silence represents one of the most salient features of medical research produced in the Stalinist camps. NKVD doctors did not study the effects of strenuous work, starvation rations, or other features of camp life.

Medical research and writing in the camps advanced the Stalinist worldview, including the belief that many illnesses were not genuine but artificially induced. Reports warned doctors to be vigilant against prisoners who harmed themselves or pretended to be ill. As one camp doctor noted, “the authorities severely punished those prisoners who injured themselves.” Prisoners apparently feared Gulag exploitation more than such punishments, for they often discovered ways to harm themselves in order to be released from work. In 1948, prisoner-doctor K. P. Bogolepov produced a clinical report titled “A Description of the Methods of Self-Mutilation among the Criminal Underworld.”
Bogolepov, who had to speak the language of his captors, strongly condemned prisoners who injured themselves, labeling all without qualification as a “criminal underworld.” In this way, he not only deployed Gulag speak, but also effectively set himself above and apart from his fellow inmates. Such distancing enabled him to diminish any empathetic response to his fellow inmates. He stated that his purpose in writing was to share his experiences and observations with other medical workers so that they would not make the same mistakes that he did in his first years as a Gulag doctor. When a doctor realizes that he failed to recognize self-mutilation and malingering, wrote Bogolepov, “that awareness gives rise to self-flagellation,” a sense that one has failed to do his work, that these scoundrels have taken advantage of you and abused your trust, and “they consider you a stupid simpleton and in some cases even a coward.” Bogolepov believed it was easy for prisoners to find ways to harm themselves or to fake an illness, using items that were readily available to them in the camps. He reproduced the assertions of the Gulag leadership that acts like self-mutilation and the feigning of illness wasted resources and capital, and harmed other inmates. Bogolepov claimed that a larger pool of sick and disabled prisoners effectively reduced the number of additional rations that would be available for the brigade, which in turn worsened everyone’s physical condition. Self-mutilation, the doctor asserted, must be viewed as a social evil, and such cases should be reported in the camp newspapers. He used his report to condemn desperate prisoners who turned to self-mutilation in order to survive the brutal labor regime of the camps.
In various scientific studies produced by doctors and medical scientists for the NKVD-MVD, there is a distinct silence about human exploitation and food deprivation. When examining disease causation, Gulag scientists noted the impact of exogenous elements, such as the harsh climate of the North and the circumstances of war. For example, the clinical division studied barometric pressure, temperature, and sunlight or “the influence of external physical factors on the development and course of vitamin deficiency diseases.” Scientists often attributed the problem of vitamin deficiency to climate or environmental factors external to the forced labor camp system, as in the following: “The rapid construction of the North Pechorskii railway line in an uninhabited territory, in the extremely unfavorable climate of the North, quickly exposed the effects of this harmful environment on the body. Illnesses among builders that have a tendency to worsen can be largely attributed to vitamin deficiency.” World War II allowed camp officials to speak openly about vitamin deficiency, in a way that may not have been possible in the prewar or postwar periods. However, Gulag researchers had to attribute food shortages and nutritional deficiencies to the wartime crisis. The availability of food declined in the camps during the war, yet independent of the wartime crisis, the camp regime itself systematically starved and brutalized prisoners. The Soviet slogan “whoever does not work, does not eat” governed the camps, as the quantity of prisoners’ food depended on their productive output. Less productive prisoners were systematically starved by policy. But the Gulag’s medical researchers did not mention the food distribution policy of the camps. Rather, they were compelled to focus on factors
independent of the camp regime, like the external shock of war or the harsh climate. They
could not address the inadequacies of official camp rations or the harm of exhaustive
physical labor, which would amount to a criticism of the Gulag regime.

Medical research advanced the goals of the Stalinist leadership, including the
desire to reduce state expenditures and create a self-financing prison labor camp system.
Gulag scientists helped the Stalinist leadership to reduce the amount of bread and vitamin
supplements for starving patients. In one study, Gulag researchers argued that doctors did
not have to give pellagra patients as much niacin as American researchers had claimed.
The study examined “the immediate and long-term effects of niacin (vitamin B3) on the
vegetative nervous system” of pellagra patients, using four case studies. The researchers
concluded that no more than one thousand milligrams of niacin would be sufficient to
yield marked improvements in pellagra patients, contrary to American scientists who
recommended five times that amount.53 Medical researchers in the camps discovered that
the NKVD could give pellagra patients less niacin, as well as less bread. A study on
“Bread for Pellagra Patients” indicated that the already meager pellagra ration could be
reduced even further. The study stated that bread for pellagra patients was made mostly
with rye and wheat flours and included barley malt. It was denser and therefore weighed
more than the standard Gulag bread, so some adjustment could to be made. According to
Gulag instructions, pellagra patients, no less than other Gulag prisoners, could not receive
more bread (in weight) than their official ration allowed. The researchers’ suggested
bread recipe for pellagra patients produced bread that was roughly 10 percent more dense
than the standard Gulag bread. The doctor wrote, “Therefore, with the approval of the Gulag supply department (OOS GULAGa), the daily ration of this bread for patients with pellagra has been reduced by ten percent.”54 His Gulag bosses would have been pleased with the cost savings. Medical researchers in the camps would not have risked questioning the food quantity of the official rations. Rather, scientists looked for ways to stretch the Gulag budget at the expense of prisoners.

In Gulag medical research, one rarely encounters effective action to save lives, nor do these studies give the impression that saving lives represented the central objective of camp science. Gulag medical research involved some modest experimental interventions, but mostly analysis and observation. A study titled “The Pathology of Pellagra and Cholesterol” described one laboratory researcher’s analysis of cadaveric bile, and opened with the line, “For several years, working on the sectioned material of persons who died from pellagra, the author has consistently noted … that the bile of those with pellagra looks different from the bile of others.”55 Researchers sometimes examined the efficacy of a limited range of remedies, but their work mainly involved merely characterizing and cataloguing the progression of disease in patients. The writing largely reflects observation and analysis rather than intervention and treatment. I. M. Perelman, a Ph.D. in medical sciences and a physician, examined polyneuritis, an inflammatory condition of the nerves that produced paralysis, which developed in patients with pellagra.56 His study detailed four cases involving men in their fifties. The men’s ailments were recorded in detail, but Perelman’s descriptions largely catalogued the physiological
process of dying. The case of a fifty-five-year-old patient who was admitted to the clinic in January 1943 noted that the patient had been hospitalized repeatedly with pellagra, that the milk and yeast treatments had no effect. He experienced weight loss, dry skin, persistent diarrhea, acute weakness, swelling in the legs, general muscle atrophy, tearfulness, emotional instability, paralysis, and heart failure.\textsuperscript{57} Similarly, the case of a fifty-two-year-old man admitted in November 1942 included the following notes: “in 1941 and 1942 hospitalized several times and diagnosed with pellagra and diarrhea”; “sharp decline in appetite”; “skin is dry, peeling, and discolored”; “tongue is bright red, shiny, with crack-shaped grooves”; “muscles severely atrophied, with partial loss of movement in the upper extremities and near paralysis in the lower extremities.” Following eight months of treatment (including milk and yeast, baths), this man’s condition slowly improved to the point where “he began to walk better and weak knee reflexes appeared.” The man was then released from the camp. The Gulag system kept mortality rates low and distanced itself from mass killing by systematically releasing prisoners on the verge of death.\textsuperscript{58} The doctor concluded his description of the case with the following: “Discharged for the journey home with partial loss of movement in the feet and the absence of Achilles reflexes.”\textsuperscript{59}

Medical Research and the Denial of Mass Starvation

The Stalinist leadership tried to maintain an image of the Gulag as a system of ordinary work camps rather than starvation camps. The NKVD-MVD leadership sought to make
the inmate population look normal, with a rate of illness and mortality that approximated an ordinary civilian population. The goal of the Gulag leadership was to keep the data on illnesses related to vitamin deficiency (pellagra, scurvy, nutritional dystrophy) as low as possible. In their medical reports, camp officials dispersed a large population of starving prisoners across many categories of illness, in order to generate a picture of a population with diverse conditions rather than one underlying affliction. The NKVD promoted the idea that vitamin deficiency diseases did not represent a single family of ailments with shared characteristics. This served the larger goal of the Stalinist leadership, which was to deny the existence of mass starvation.

The NKVD-MVD did not want camp doctors to recognize starvation diseases too readily. Instead, camp doctors were instructed to focus on the symptoms rather than the causes of disease, as the former would present a more varied picture of Gulag prisoners’ health. Stalinism distorted medical science, just as it distorted genetics and other scientific research. The camp leadership disputed the notion that vitamin deficiency diseases constituted a single family of illnesses. Gulag medicine had to support “differentiation” in diagnoses, and demonstrate that vitamin deficiency diseases were fundamentally distinct. One example is a 1943 publication of the Gulag NKVD USSR titled “Nutritional Dystrophy and Pellagra: Diagnosis, Clinical Evaluation and Treatment” produced by a professor of medicine, I. A. Kassirskii. The chief of the Gulag medical-sanitation department, D. M. Loidin, wrote the foreword to Kassirskii’s study, twenty-one hundred copies of which were published by the Ryblag camp. Half of
Kassirskii’s wartime report was devoted to pellagra, a nutritional disease that affected the skin, gastrointestinal tract, and central nervous system, “the classical triad of the three D’s: dermatitis, diarrhea, and dementia.” Not coincidentally, these were the same categories that the Gulag used to identify prisoners’ illnesses. For reporting purposes, disease classifications included skin disorders, gastrointestinal disorders, and psychological disorders. The medical-sanitation department was charged with keeping disease rates low, and one way to do this was to manipulate disease classifications and descriptions. Gulag doctors followed such orders. Declassified Soviet archival documents indicate that camp health officials identified most prisoners’ illnesses as “gastrointestinal disorders” or “diseases of the skin and subcutaneous tissue” rather than “pellagra and nutritional dystrophy.” In this way, they effectively concealed mass starvation in the camps.

An NKVD-approved study, Kassirskii’s lengthy scholarly article offers a unique window on the official Gulag approach to vitamin deficiency diseases. Kassirskii’s work taught camp doctors about nutritional deficiency diseases and how to identify disease symptoms. It recommended certain treatments, but also specified when further treatment was no longer viable for the dying prisoner. The researcher did not refute the prevailing medical wisdom on pellagra, for “the controlling influence of diet in the causation and prevention of the disease has been conclusively demonstrated.” Yet the Gulag did not dwell on the problem of insufficient food. In his foreword, the head of the Gulag medical-sanitation department presented the official position. D. M. Loidin noted that
vitamin B2 deficiency was particularly common “under our conditions,” but he insisted that NKVD medical staff had to learn to recognize it properly. Loidin approved the conclusions of Kassirskii’s study, that “all diseases related to insufficient food should not be diagnosed as pellagra” and that NKVD doctors and medical personnel must practice “differentiation in their diagnosis.”

In Stalin’s Gulag, doctors were discouraged from diagnosing starvation illnesses like pellagra. Pellagra could be assumed only if a large number of prisoners grew severely ill in a particular location. The author wrote, “The pre-pellagra period is characterized by the presence of vague nervous phenomena: a lack of desire to work, rapid fatigue, apathy, weakness, dizziness, irritability, and insomnia, which are then joined by diarrhea and emaciation.” Since successful treatment and recovery depended greatly on early detection, “it would not be a great error if pre-pellagra were presumed,” Kassirskii noted, but only if there were “a massive outbreak of these general symptoms.” The author told Gulag doctors not to diagnose pellagra too readily. He stated, for example, that psychological disorders did not necessarily signal “hunger dementia” an ailment often described by Gulag survivors. Memoirist Gustaw Herling saw the condition in a fellow inmate and friend who “snatched a tinful of soup from my hands outside the kitchen. I could swear that he did not recognize me then, even though he looked straight at me with distended, matter-encrusted eyes. I forgave him then, and I forgive him now—him, or his mortal remains.” Unlike Herling’s sympathetic account, Kassirskii provided a clinical description of starvation-induced mental degeneration:
The pellagra state typically begins with the condition of hypochondria, timidity, restlessness, reticence and depression. … Sometimes, a state of confusion and disorientation can be observed and the patient has convulsions and hallucinations. In this state, we have seen patients commit suicide time and again, throwing themselves from a window or drowning themselves. Psychological disorders can go into remission but typically recur if pellagra has not gone away. In general, the psychosis from pellagra does not bode well for the patient and can even be a sign that the underlying disease is worsening. Patients die in a state of dementia with symptoms of general cachexia and suppression of all vital functions of the body.  

The Gulag-approved study encouraged treatment of isolated symptoms rather than the underlying causes of pellagra. Kassirskii catalogued the various symptoms of the disease: the pronounced weight loss, skin rashes and peeling, severe fatigue and apathy, psychosis, masking of the face, pale and dry skin, sensitivity to the cold, gastrointestinal disorders and diarrhea, frequent urination, reduced pulse and blood pressure, and “the most significant symptoms of the disease,” the swelling of the tongue and inflammation throughout the body. He noted, “The stomach is extremely swollen and sometimes looks literally like a drum.” Kassirskii underscored that each individual effect of the disease could be treated separately, without issuing a pellagra diagnosis. He suggested that
doctors did not need to make reference to starvation, the underlying cause of these symptoms. According to Kassirskii, a doctor may focus on treating diarrhea, since it “plays a key role” in worsening the patient’s health and prognosis. Dermatitis, including skin lesions and redness of the skin, constituted other symptoms of pellagra, which eventually develops into darkened, rough, scaly, and peeling skin that persists for months. Clinicians, he noted, refer to such skin disorders on various parts of the body as “pellagra gloves,” “pellagra boots,” “pellagra collar,” or “pellagra glasses.” Although the above ailments signaled the presence of acute disease, the author stressed (consistent with Gulag instructions) that doctors should not diagnose pellagra too readily, for many forms of malnutrition and vitamin deficiency produced diarrhea and exhaustion. He reserved perhaps his sharpest language to attack “several authors” who speak of “a general family of nutritional disorders.” Kassirskii stressed, “This view is fundamentally wrong and confuses doctors.” The NKVD-MVD wanted doctors to classify prisoners under a multiplicity of ailments rather than a single diagnosis of malnutrition. Gulag research had to conceal the underlying reality of mass starvation in the camps.

Despite being a camp researcher, Kassirskii made no mention of prisoners or forced labor. Only subtle references to the Gulag environment are present in his study. For example, the author began by noting that diseases associated with an insufficient diet could take various forms, and result from deficient caloric intake or dietary imbalances: “for example, a lot of bread, carbohydrates, cabbage, or a lot of soup.” Such was the Gulag prisoner’s diet, but the author made no mention of it. Moreover, he stated that
“nutritional dystrophy more easily arises in persons doing heavy physical labor” and that “persons in difficult professions who live in conditions where food is poor, more often experience nutritional dystrophy.” He also indicated that “extended periods of time standing, walking, and doing physical labor” worsened symptoms. Such descriptions captured the life of Gulag prisoners perfectly, but the author made no explicit reference to the camp environment. Instead, Kassirskii stressed that pellagra had occurred in a variety of historical and international contexts. He cited the writings of “famous researchers of pellagra” who studied the condition in Egypt and the United States, as if to underscore the normalcy of the disease in the wartime Soviet Union.

Medical research on prisoners denied or concealed the violence of everyday life in the Stalinist camps. Kassirskii’s catalogue of possible treatments made no explicit reference to camps and prisoners, but the labor camp context was implied. Those with nutritional dystrophy most often had vitamin B deficiency too, and they were especially susceptible to infectious diseases (pneumonia, malaria, typhus, flu), which often proved fatal. People should be “situated in a dry, warm room and warmed up with blankets and heaters (to prevent colds)”; housing them together with persons with infectious diseases was not permitted. They should be given vitamins as well as food (that is, consistent with the official scale of Gulag food rations), which contained animal and vegetable protein, fat, and carbohydrates. Other recommendations included yeast therapy of three to four weeks, especially for people with stage 1 or 2 nutritional dystrophy, a salt-free diet (to reduce swelling), vitamin C, animal blood derived from a slaughterhouse (and added to
kasha, scrambled eggs, or pâté), and blood and plasma transfusions. Cold weather, dryness, and intense physical stress “clearly accentuate the swelling” while a bed rest regime helped reduce inflammation. Kassirskii indicated that in mild cases, symptoms “diminish easily and quickly, following improvements in diet” and once “the patient rests from physical work for several days.” To prevent recurrence, he recommended that those who were susceptible to nutritional dystrophy be placed “in lighter work conditions.” The Gulag context was implied but not openly acknowledged. Kassirskii’s recommendations largely represented modest interventions aimed at disease symptoms, which probably did little to heal such severely ailing prisoners.

The researcher’s discussion of possible treatments was restrained. Doctors should take a personalized approach to treatment and consider the specificities of each case. It would be a mistake, Kassirskii argued, to group patients together with related symptoms and nutritional deficiencies, and to classify and treat them similarly. He proposed a number of possible interventions (such as vitamin supplements, yeast, early detection, and hospitalization), but he did not advocate a general increase in the quantity of food. Kassirskii supported the system that the Gulag already had in place, which included an “enhanced and balanced diet” for pellagra patients, consistent with the official pellagra ration (norm pellagroznogo paika). In this way, he defended the sufficiency of the Gulag’s meager rations. Kassirskii reproduced the NKVD’s denial of mass starvation in the Gulag, and dismissed the need for across-the-board remedies like improved food rations. He did not question the meagerness of the pellagra ration, but even advocated...
reducing the number of pellagra rations being issued. Nor did he grant these very frail individuals extended bed rest or time away from work. He only mentioned that if the convalescing patient “follows a normal work and dietary regime, the disease will not return; otherwise, relapses of the disease will occur easily.”

Finally, Kassirskii described the point of no return for patients with pellagra and nutritional dystrophy, as if to signal when camp doctors should cease treatment. He noted that if malnutrition had progressed too far, then “no supplements or balanced diet could help the patient whose body is experiencing very profound irreversible changes.” Like a scientist merely cataloging his observations of a chemical process, he stated plainly, “The basic look of the dying is characterized by swelling of the extremities and intense exhaustion.” Kassirskii’s study reads like a laboratory report, where the NKVD scientist observed, studied, and catalogued the progression of vitamin deficiency diseases among prisoners. Such studies confirm Solzhenitsyn’s assertion that “the [Gulag] Medical Sections were not allowed to interfere with the death process.”

Challenging Gulag Medicine

In her last major work, Svetlana Boym brilliantly described how a particular story in Shalamov’s Kolyma Tales “bends the barbed wire ever so slightly yet significantly.” A few medical researchers in the Gulag used their work to “bend the barbed wire” as well. Rarely but remarkably, they took the risk of challenging the Gulag’s medical mythology, in both subtle and overt ways. For example, some Gulag researchers questioned the
Stalinist assertion that labor therapy (trudovaia terapiia) represented the best form of medical treatment for ailing prisoners. NKVD-MVD bosses maintained that labor healed, and largely denied the health benefits of long-term rest and inactivity. In 1946, a Gulag doctor at the Unzhlag camp produced a report on the benefits of “labor therapy” for tuberculosis patients. The doctor began by reproducing Gulag slogans and praising the neurological and psychological benefits of labor, especially for the sick “who are isolated and cut off from their families, familiar activities and work.” Nonetheless, the researcher challenged Gulag practice as well. The study involved two hundred tuberculosis patients over a period of a year. He placed them in two to six hours of “stimulating work” or “labor exercises” that did not involve output quotas, thereby defying standard practice in the Stalinist camps of feeding prisoners according to their productive output. Gulag labor was coerced through strict quotas on output, even for weakened prisoners. In this study, the labor included cleaning and gardening; working in the kitchen, bakery, or office; laying brinks or plastering walls; making sandals, ropes, mats, and pottery. Whenever possible, the doctors guaranteed no fewer than three thousand calories of “good food” per day, a truly enormous sum by Gulag standards. The few hours of work took place largely “in the fresh air or in places with normal conditions of hygiene and sanitation,” again, an unusual circumstance for camp prisoners. On the one hand, the doctor spoke the language of his captors and praised labor for all its benefits, both to the individual and the state. On the other hand, he blatantly defied Gulag rules. His use of labor with no fixed production quota violated the Gulag’s fundamental
principle of feeding prisoners according to their level of output. This hardly represented
the kind of “labor therapy” that the Gulag advocated. The researcher was feeding sick
prisoners, regardless of their labor productivity, in amounts greater than the Gulag
sanctioned for even its most productive prisoners. Moreover, he warned against physical
exertion that might be too strenuous for these patients, and he urged deeper study into the
acute and long-term impact of labor on their respiratory systems. This represents an
unusual and courageous critique of the Gulag’s labor regime, rationing system, and
“labor therapy” mandate.

Gulag medical research often involved cases of prisoners suspected of faking
illnesses, a source of alarm for the Stalinist leadership. Camp doctors had to produce
medical reports and papers denouncing simulation and instructing doctors on how to
recognize pretenders. A 1944 paper by a NKVD medical researcher titled “On the
Simulation of Psychoses and Neuroses” demonstrates how one author attempted to both
satisfy his captors, who were obsessed with the problem of self-mutilation, and challenge
Gulag dogma. The report treated no marginal subject in the Gulag. As noted above,
mental illnesses often appeared as a consequence of starvation and vitamin deficiency
diseases. The study began by quoting from a 1936 publication, “Forensic Psychiatry,”
that concerned the ways in which people pretended to be mentally ill, often successfully.
However, the author stated that “highly qualified psychiatrists” disputed the assertion,
and that his own clinical analysis confirmed the view that very few individuals actually
feigned mental illness. He wrote, “The simulation of psychoses and neuroses, even in
the context of a camp, is rare and much less common than is generally believed.”92 Of the hundreds of patients he examined, the doctor claimed that only a few could be described as pretenders, and that “erudition, clinical experience, careful analysis, and the absence of bias provide safeguards against diagnostic errors in this area.”93 His assertions represented a bold challenge to Gulag dogma regarding the ubiquitous threat of malingerers.

Finally, a 1944 report of the Northern Railway camp’s scientific research laboratory offers a powerful example of researchers “bending the barbed wire.”94 The authors expressed sympathy for the subjects of their analysis, which was highly unusual for medical-sanitation department reports. In all likelihood, the researchers were themselves prisoners. They appeared to be well trained and knowledgeable scientists, yet they were not identified as specialists (doctors, botanists, or agronomists, for example), nor did they operate under any of the scientific research institute’s divisions. When referring to their subjects of study, the authors did not use the typical term “patients,” but rather spoke of the “builders” of the North Pechorskii railway. The term was common in the early 1930s, but ceased to be used to describe camp prisoners following Stalin’s Great Purges of 1936 to 1938.95 The only authors to refer to prisoners as “builders” (a distinctly favorable term under Stalin), the researchers dignified their patients by identifying them as workers, producers, and creators.

The report examined the hidden presence of scurvy in persons with pellagra, and it stands out for its language, focus, and conclusions. The authors indicated that the
obvious signs of scurvy appear to have vanished among builders of the North Pechorskii railway, resulting in the mistaken impression that the disease was no longer a problem.

Yet they debunked the NKVD slogan of the time: “Scurvy has disappeared in the North!” Instead, the scientists asserted that scurvy was still very much present. They stated that scurvy symptoms had been simply masked as patients developed more acute vitamin deficiencies. Vitamin A and vitamin C deficiency predominated in the North, but since 1941–42, pellagra had become widespread. The authors cited the work of the director of the scientific research institute, K. M. Dubrovskii, who viewed the observed sequence of predominant vitamin deficiency diseases in the North—first vitamin A, then vitamin C, then pellagra and dystrophy—as reflecting a logical progression. At first, these vitamin deficiency diseases appeared distinct, but soon it became difficult to distinguish them, as prison laborers grew more emaciated.

The researchers drew attention to the insufficiency of the official Gulag ration, especially the 1942 iteration that reduced rations across all camps. In a brave indictment of the Gulag food distribution system, they stressed “the enormous deficit of vitamin C” in the daily rations: “We have observed nutritional dystrophy since early 1942, when the food ration changed in that the quantity of protein and fat significantly declined.” The authors focused their attention on the inadequate rations that prisoners were typically provided: “The population group under our observation ate mostly grains (zlakovye produkty).” If they had any meat or fish, it was dried and not fresh. The fats in their diet were vegetable fats, and the availability of vegetables fluctuated greatly depending on the
season and the availability of transportation. Prior to fall 1943, vegetable supplies were “totally inadequate.” In a rare mention of the Gulag context, the authors noted the insufficiency of vitamin C in the official food rations. They examined the food rations of one camp section from April 1943 to April 1944, and argued that they provided roughly no vitamin C all year. Vegetables were seriously lacking most of the year. Stale sauerkraut, which had virtually lost its vitamin C content, was often served in place of fresh vegetables. In a rare reference to hard physical labor and insufficient food, the researchers insisted that the subjects of their study required more: “We believe that the body’s actual daily requirement of vitamin C is no less than 100 mg, given the climate of the North and [the workers’] physical burden.”

In sharp contrast to Kassirskii’s study of pellagra, and in a direct challenge to their NKVD bosses, the researchers spoke openly of malnutrition and the commonalities among vitamin deficiency diseases. They conducted research in March 1944 on 105 pellagra and dystrophy patients in the infirmary of the Rakpas camp. The overwhelming majority of patients were hospitalized from one to eight months. The researchers asserted, “The nutrition of all patients is greatly diminished. Their muscles have severely atrophied, and this is especially apparent on the buttocks where the hanging skin folds over.” The authors provided a gruesome description of the patients in their camp infirmary, who suffered from night blindness and had swelling throughout the body, especially in the face, legs, and feet. Their skin was rough and peeling, especially on the elbows, knees, and tailbone, and some had forms of gooseflesh. In most patients, the
extremities were bluish from lack of oxygen. The skin on the face, neck, shoulders, and chest was yellowish brown or reddish brown, the tongue red and swollen. Some had abdominal swelling and dark spots on the legs from what used to be scurvy rashes (meaning, their disease had progressed beyond scurvy). The heartbeat was muffled and hard to detect, the pulse slow. They concluded, “The picture presented here of the disease of malnutrition, therefore, reveals symptoms of pellagra and nutritional dystrophy simultaneously.”102 By making this assertion, the authors were challenging the NKVD’s call for “differentiation” in vitamin deficiency diseases. They courageously pushed back against the Gulag’s official claim that inmates suffered from various illnesses that were not fundamentally related. They focused on the shared underlying causes rather than the varied symptoms of disease. The authors stated, “And so, we are inclined to believe that increased mortality in the spring and summer months of the year is due to the growth of scurvy among pellagra cases in the North, as scurvy deepens the specific pathological changes of vitamin deficiency and lowers a patient’s resistance to disease in the respiratory tract (pneumonia, tuberculosis) and gastrointestinal tract (like colitis).”103 Unlike Kassirskii’s study, this research underscored the linkages among prisoners’ ailments, and attributed various Gulag illnesses to a common underlying affliction—starvation.

The authors also challenged the Stalinist practice of criminalizing illness. Gulag bosses routinely perceived starving prisoners as willfully lazy and work-averse, and punished them for underperformance. Weakened camp prisoners were systematically
denounced as malicious shirkers and lazy saboteurs.\textsuperscript{104} The researchers drew attention to the injustice of criminalizing sick prisoners, and did so indirectly but boldly, in a story involving eighteenth-century Britain. They ended their study with the following:

In conclusion, it must be emphasized, that scurvy sharply reduces the body’s work capability. The observation of the British Navy doctor, James Lind, is especially interesting in this regard. In 1747, he conducted research on sailors who were suffering from scurvy, and he stated:

“Extreme sluggishness and laziness typically accompany the disease (scurvy). They are often mistakenly understood as a sign of malicious intent on the part of the patient. Sometimes [the consequences were] sad as many, forced on order of their officer to climb the mast, fell from the mast and died.”\textsuperscript{105}

Like these British sailors, malnourished Gulag prisoners were often punished as willfully lazy and work-averse. The researchers courageously ended their report with James Lind’s observation, which articulated their own views in a similar context. The quotation is entirely consistent with the unusually defiant and blunt writing in the piece. In challenging a fundamental Gulag policy, the authors produced a work highly uncharacteristic of Gulag medical research. The scientists used their research paper to question Gulag dogma and critique the inhumane practice of criminalizing sick prisoners.
Conclusion

Medical research in Stalin’s Gulag was constrained and distorted by the labor camp environment. Since their work had to meet the approval of Gulag administrators, scientists avoided mention of the routine distribution of starvation rations and the brutal system of human exploitation. Researchers remained distinctly silent about exhaustive labor and inadequate food, the dominant features of camp life. Instead, they were compelled to support certain Gulag myths. These included the assertions that physical labor was therapeutic, camp food rations were sufficient to sustain life and restore health, vitamin deficiency diseases did not represent a single family of ailments, and patients often faked their illnesses. In Stalin’s Gulag, prisoner-doctors produced scientific papers for camp bosses, and their medical research was severely limited by both their camp circumstances and their audience. No doubt many prisoner-doctors tried to produce valuable scientific studies, but they functioned within “an atrocity-producing situation,” which compelled them to validate the Gulag order. Thus medical research in the Stalinist camps did not represent an entirely benign enterprise, but often supported, concealed, and normalized the Gulag system. What Primo Levi said of National Socialism appears applicable to Stalinism as well: “It degrades its victims and makes them similar to itself, because it needs both great and small complicities.”

Although a few brave prisoner-scientists used their research to challenge party dogma—concerning the adequacy of official food rations, the usefulness of “labor therapy,” the ubiquitous threat of malingerers, and the Stalinist practice of criminalizing sick prisoners—many others
confronted their choices differently. Nonetheless, as Levi himself emphasized, there is no need to issue a “hasty moral judgment” on such privileged prisoners in the camps, for “the greatest responsibility lies with the system.”\textsuperscript{107}

Figure legends

Figure 1. Eye disease due to vitamin deficiency. The State Archive of the Russian Federation (GARF) f. 9414, op. 2, d. 168, l. 171.

Figure 2. Scurvy: typical forms, 1939–41. GARF f. 9414, op. 2, d. 168, l. 115.

Figure 3. Manifestations of alimentary dystrophy (starvation disease) and hypostatic edema. GARF f. 9414, op. 2, d. 168, l. 114 (on back side of page).
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4. In the 1930s, the Gulag health service was referred to simply as the sanitation department (sanitarnyi otdel). By the end of the war, however, it began to be called the medical-sanitation department (meditsinskii-sanitarnyi otdel). In this piece, I use the latter designation, as it makes more sense to contemporary readers.

5. In the central Gulag archive, much of the medical research dates from the war years. It may be that, during Khrushchev’s dismantling of Stalin’s forced labor camp system in the 1950s, officials who were winnowing the archive were more inclined to preserve wartime records.


8. Manley, “Nutritional Dystrophy” (n. 3), 211.


11. Lifton, Nazi Doctors (n. 10), 425.

12. In the sharashkas, prisoners received better housing, health care, and food than other Gulag detainees. Most of all, they were spared the lethal labor of ordinary inmates. On these elite camps, see Applebaum, Gulag (n. 1); L. L. Kerber, Stalin’s Aviation Gulag: A Memoir of Andrei Tupolev and the Purge Era (Washington, D.C.: Smithsonian, 1996); Lev Kopelev, “With Solzhenitsyn in the Sharashka,” Michigan Quart. Rev. 20 (Fall 1981): 444–56; Siddiqi, “Scientists and Specialists in the Gulag” (n. 3).


and Soviet State microfilm collection at the Hoover Institution Library and Archives, Stanford University.

17. GARF f. 9414, op. 2, d. 168, l. 23.


21. See, for example, the 1945 remarks of a medical-sanitation department director in GARF f. 9414, op. 2, d. 169, l. 23.

22. GARF f. 9414, op. 2, d. 177, l. 1–238.

23. GARF f. 9414, op. 2, d. 177, l. 6.

24. Such references illustrate that Soviet doctors were not isolated from their European counterparts at this time. See, for example, Susan Gross Solomon, ed., Doing Medicine Together: Germany and Russia Between the Wars (Toronto: University of Toronto Press, 2006).
25. Bulgakov, “Nauka v Vorkutlagе” (n. 18), 45–47. In the post-Stalin period, some of these camp doctors and former prisoners were rehabilitated and recognized for their achievements in medical research. See Sapolnova, Vekshina, and Kanev, *Liudi v belykh khalatakh* (n. 2), 55–56.


27. GARF f. 9414, op. 2, d. 168, l. 23.


30. Manley, “Nutritional Dystrophy” (n. 3), 208.

31. GARF f. 9414, op. 2, d. 168, l. 1–2.

32. GARF f. 9414, op. 2, d. 168, l. 5.

33. Ibid.

34. GARF f. 9414, op. 2, d. 168, l. 114–15, 171.

35. GARF f. 9414, op. 2, d. 168, l. 64–65.

36. GARF f. 9414, op. 2, d. 168, l. 6–7.


38. GARF f. 9414, op. 2, d. 168, l. 2.
39. GARF f. 9414, op. 2, d. 168, l. 23.

40. GARF f. 9414, op. 2, d. 168, l. 1a.


42. GARF f. 9414, op. 2, d. 168, l. 6–7.

43. GARF f. 9414, op. 2, d. 168, l. 31.

44. GARF f. 9414, op. 2, d. 168, l. 31–32.

45. According to Dubrovskii, the blood must be fresh and extracted, strained, and stored under very sanitary conditions. It should be diluted with a saline solution before administering. See GARF f. 9414, op. 2, d. 168, l. 31–32. Doctors did perform blood transfusions in the camps. See, for example, Isaac J. Vogelfanger, *Red Tempest: The Life of a Surgeon in the Gulag* (Montreal and Kingston: McGill-Queen’s University Press, 1996), 102, 176. The October 1944 iteration of the food rations specified that supplementary food and bread rations should go to blood donors thirty days after giving blood. GARF f. 9401, op. 1, d. 713, l. 213.

47. GARF f. 9414, op. 2, d. 175, l. 1–72. On the title page, Bogolepov identified himself as a sixty-year-old political prisoner or counterrevolutionary offender detained in the Smolensk regional system of labor colonies. A typed cover page identified the report as a publication of the Medical Division (meditsinskii otdel) of the MVD USSR Main Administration of Corrective-Labor Colonies.

48. GARF f. 9414, op. 2, d. 175, l. 1.

49. GARF f. 9414, op. 2, d. 175, l. 69–70.

50. See, for example, GARF f. 9414, op. 2, d. 177, l. 1–238; GARF f. 9414, op. 2, d. 164, l. 1–17; GARF f. 9414, op. 2, d. 168, l. 1–64.

51. GARF f. 9414, op. 2, d. 168, l. 2.


53. GARF f. 9414, op. 2, d. 168, l. 86–87.

54. GARF f. 9414, op. 2, d. 168, l. 22.

55. GARF f. 9414, op. 2, d. 168, l. 161. The researcher found that the bile of dead pellagra patients “almost completely lacks cholesterol,” and this “distinguishes pellagra patients from those with other firms of dystrophy and cachexia such as starvation (golodanie), tuberculosis, diabetes, and cancer, where the amount of cholesterol in the body is maintained and even increases.”

57. GARF f. 9414, op. 2, d. 168, l. 102.


59. GARF f. 9414, op. 2, d. 168, l. 103.

60. Alexopoulos, Illness and Inhumanity in Stalin’s Gulag (n. 52).


62. GARF f. 9414, op. 2, d. 164, l. 1–17. On Kassirskii’s study, see also Manley, “Nutritional Dystrophy” (n. 3), 252–54.

63. GARF f. 9414, op. 2, d. 164, l. 11–12.

64. GARF f. 9414, op. 2, d. 164, l. 9.
65. See, for example, GARF f. 9414, op. 1, d. 621, l. 127.


67. GARF f. 9414, op. 2, d. 164, l. 2.

68. GARF f. 9414, op. 2, d. 164, l. 10-11.


70. GARF f. 9414, op. 2, d. 164, l. 13.

71. GARF f. 9414, op. 2, d. 164, l. 4–5.

72. GARF f. 9414, op. 2, d. 164, l. 11.

73. GARF f. 9414, op. 2, d. 164, l. 13.

74. GARF f. 9414, op. 2, d. 164, l. 6.

75. GARF f. 9414, op. 2, d. 164, l. 9–10.

76. GARF f. 9414, op. 2, d. 164, l. 6–7.

77. GARF f. 9414, op. 2, d. 164, l. 7–8.

78. GARF f. 9414, op. 2, d. 164, l. 4–5.

79. GARF f. 9414, op. 2, d. 164, l. 4, 7.

80. GARF f. 9414, op. 2, d. 164, l. 9.

81. GARF f. 9414, op. 2, d. 164, l. 14–17.

82. GARF f. 9414, op. 2, d. 164, l. 14–15.

83. GARF f. 9414, op. 2, d. 164, l. 5–7.


86. N. L. Kulukovskii, “Ob effektivnosti trudovoi terapii pri tuberkuleze legkikh,” May 1946. The heading of this handwritten report indicated that the doctor worked at the Unzhlag camp, in a hospital that had been recently converted into a clinic for tuberculosis patients. GARF f. 9414, op. 2, d. 171, l. 1–54.


88. GARF f. 9414, op. 2, d. 171, l. 51–52.

89. GARF f. 9414, op. 2, d. 171, l. 53.

90. L. G. Sokolovskii, “O simuliatsii psikhozov i nevrozov,” a handwritten report presented at a scientific-medical conference in September 1944, sponsored by the central hospital of the NKVD USSR Ukhta Combine. A header to the report indicates that the author worked in the Medical Department of the MVD USSR Main Administration of Corrective-Labor Colonies. GARF f. 9414, op. 2, d. 166, l. 1–15.

91. GARF f. 9414, op. 2, d. 166, l. 1–2.

92. GARF f. 9414, op. 2, d. 166, l. 15.
93. Ibid.

94. GARF f. 9414, op. 2, d. 168, l. 79–83.


97. GARF f. 9414, op. 2, d. 168, l. 83.

98. GARF f. 9414, op. 2, d. 168, l. 79.

99. GARF f. 9414, op. 2, d. 168, l. 80–81.


101. GARF f. 9414, op. 2, d. 168, l. 82.

102. Ibid.

103. GARF f. 9414, op. 2, d. 168, l. 83.

104. See, for example, V.A. Samsonov, *Preodoleniia: v nelegkom puti v nauku ot medbrata-zakliuchennogo do professora universiteta* (Petrozavodsk: PetrGU, 2004), 57.

105. GARF f. 9414, op. 2, d. 168, l. 82–83.
