



A MAN NAMED GUENNA

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IN THIS NEW SECTION, WE ASK EXPERTS TO PROVIDE A HISTORIC
PERSPECTIVE ON ISSUES AND TOPICS ADDRESSED IN THE ISSUE.

A HISTORICAL LENS

In this issue, Kathleen M. Vogel shares the story of Gennadiy Lepeshkin, a former Soviet Union bioweapons scientist. During the Cold War, the world became acutely aware of the threat of biological weapons. The Soviets weren't alone; the U.S., and others had a secret biological weapons program for many years. When discussing modern-day biological threats, it is critical to understand the legacy of State-sponsored biological weapons programs.

His nickname among friends was Guenna—he was a respected microbiologist who loved to go fishing, play guitar and volleyball, and sing songs with his dog Chase. Guenna grew up in a military family and went into the military himself; he was a true patriot. He loved his work and found microbiology exciting because, “in any kind of research involving microorganisms, you’re discovering something new every day.” Guenna loved adventure, he worked hard, and he partied hard, but he was a dedicated family man whose children were proud that he was a military doctor. Guenna also produced biological weapons that were aimed at killing thousands of Americans.

This is the story of Gennadiy (Guenna) Lepeshkin, a former Soviet bioweapons scientist.

The Soviet bioweapons program is considered to be the largest and longest-running bioweapons program.¹ Having operated between the late 1920s and the early 1990s, the Soviets achieved a level of sophistication and technological advancement in bioweapons development that surpassed that of the American program. Soviet scientists researched, developed, and weaponized a large number

¹ For extensive details of this program, see: Milton Leitenberg and Raymond Zilinskas, *The Soviet Biological Weapons Program: A History* (Cambridge: Harvard University Press, 2012).

of biological agents that cause anthrax, smallpox, pneumonic plague, and other diseases. They also designed novel, genetically engineered bioweapons.

Part of our team (Ben Ouaghrham-Gormley and Vogel) first came to know Gennadiy about fifteen years ago. Ben Ouaghrham-Gormley first met Gennadiy in the late 1990s, during a visit at the Stepnogorsk anthrax production plant in Kazakhstan that Gennadiy managed for many years. Vogel met Gennadiy in 2000 when she, along with a group of Americans and other international participants, attended a conference at the Stepnogorsk plant. The conference focused on the current status of U.S.-funded dismantlement of the bioweapons facility and on the conversion of its personnel and equipment to peaceful uses.² Paperno and Grunberg met Gennadiy during one of his U.S. visits in 2010. Since then, we have had other opportunities to meet and talk with Gennadiy. As he has opened up over the years about his past work, we have been intrigued to explore how a respected microbiologist came to work on weapons that would kill indiscriminately. For the past four years we have been working on an oral history research and education project, called The Anthrax Diaries, that has involved interviewing men and women like Gennadiy who were directly involved in bioweapons work to try and understand how and why they came to produce such terrible weapons. Although it is easy to merely rationalize their work as a by-product of Cold War hostilities, interviews with Gennadiy and others reveal a more complex set of ethics that structured their career choice to use microbiology for harm.

As we have embarked on this oral history project, we see that a sociological and psychological study of the Soviet bioweapons program offers new contributions to the understanding of Cold War defense logics and the personal and ethical responsibilities of those who worked in such programs. Interviews with Gennadiy and other former bioweapons scientists reveal how secrecy, patriotism, propaganda, scientific priorities, technical interests, different national and laboratory cultures, politics, and scientific practices all shaped scientist participation in weapons development. When asked how he felt about working on biological weapons, Gennadiy is very matter-of-fact, "I was offered a job, and I accepted it and went there to work." When probed further about how he felt at the

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**- GENNADIY LEPESHKIN
FORMER SOVIET BIOWEAPONS SCIENTIST**

*** SOME OF THE OTHER SOVIET SCIENTISTS INTERVIEWED, HOWEVER, FOUND THE WORK PROFOUNDLY DEPRESSING AND FELT TRAPPED.**

² Michael Dobbs, "Soviet-Era Work On Bioweapons Still Worrisome," *Washington Post*, 12 September 2000, p A1.

time about working with biological weapons, Gennadiy replies, "My feelings about working with biological weapons were positive... I liked the work, I felt that it was very important and promising. And, very necessary... You're learning new things, studying the work of other research scientists, analyzing, getting various types of new findings, getting results..." Gennadiy goes on to say, "I chose the life of a military man, military doctor, microbiologist, a professional military man in the biotechnology field, so the work gratified me and I lived out my life... lived a life that pleased me." Some of the other Soviet scientists interviewed, however, found the work profoundly depressing and felt trapped.

To date, our interviews reveal interesting ethical variability within these weapons programs that show individuals and cultures within and across institutions embodying and justifying different norms and value systems. They illustrate how the social context and technical practices within particular work environments can create circumstances through which scientists can ignore, as well as rationalize, the risks associated with their work. In examining these kinds of issues, the interviews will illuminate the local, national, and international challenges regarding the ethics of scientific and technological work for students in the physical and natural sciences, social sciences, and engineering. There has been long-standing debate and interest among the public and scholarly community about whether or not scientists are responsible for the technologies they create, but what is less visible is that this discussion also takes place between and within communities of scientists and engineers. This kind of discussion is important for our students and the policy community to see and hear. Furthermore, the frequent conception of biological agents as "dual use," i.e., having both military and civilian applications, complicates efforts to put scientific work in the life sciences into neat ethical categories; this historical project and its insights are particularly salient with respect to recent discussions on how advances in the life sciences are creating more dual-use challenges.³

³ For an example, see Gigj Kwik Gronvall, *H5N1: A Case Study for Dual-Use Research*, Council on Foreign Relations. Working Paper. July 2013, accessible at: http://www.upmchealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2013/2013-07-15-h5n1_dual-use_research.pdf



U.S., KAZAKH, AND RUSSIAN PARTICIPANTS AT "BIOTECHNOLOGICAL DEVELOPMENT IN KAZAKHSTAN: NONPROLIFERATION, CONVERSION, AND INVESTMENT," CONFERENCE HELD JULY 24-26, 2000, IN STEPNOGORSK, KAZAKHSTAN

In our video-taped interviews, we have seen fascinating dimensions of how the particular U.S. and Soviet contexts have shaped how these former bioweapons scientists have viewed the ethical dimensions of their work. One point that came up in interviews with Gennadiy and other former Soviet scientists was the international Biological and Toxin Weapons Convention, which banned the research, development, and production of biological weapons. This treaty was ratified by the Soviet government in 1975 and was consistently violated for the next fifteen years, in secret, at dozens of bioweapons facilities around the Soviet Union. Gennadiy admitted that he knew about the Convention from the moment it came into force and that he discussed it with his colleagues at Stepnogorsk. When asked what he and his colleagues did after that discussion, Gennadiy notes, "nothing much. People just did their work. We're military folks, you see, in the military, you receive your orders, and you do your work." In interviews we have conducted with other former Soviet bioweapons scientists, we have recorded a variety of explanations from Soviet scientists about why they violated the treaty, from "I was just following orders" to "We had to protect our country" to "We believed that the U.S. was also continuing their bioweapons work." Perhaps the most striking aspect of this is the ease with which these explanations are offered. Recording such discussions on video (as opposed to text or sound alone) has the advantage of capturing the body language and facial expressions that accompany the statements. It is quite obvious in our interviews that violating an international treaty

did not bother some of the scientists then and does not make them uncomfortable now. Gennadiy, however, felt clearly uncomfortable when asked why he had not told his family the truth about his weapons work – even now, when he is no longer bound to keep that secret. His grown children still think that he was “a military doctor.” This comment reveals how he is still trying to partition his former work, life, identity, and representation of self.

To inform our work, we are drawing on literature from the history and anthropology of science and technology to illustrate the social and psychological processes through which particular ethical arguments acquire compelling force for Soviet biological weapons scientists.⁴ We can also record the boundaries that these scientists construct regarding what counts as ethics to them, and document the “central axioms” and “different ethics” that govern how these scientists considered their work. For example, Gennadiy repeatedly mentioned that, although his life’s work during the Soviet era was to develop a potent biological weapons capability to use against Americans, he never believed they would be used, “I don’t think that biological weapons could have been used offensively... because it’s a type of weapon that can always have an impact on both sides.” He also argued that, “if any sort of conflict did occur, it would be small in scale, not global, because nuclear weapons were the primary focus.” Anthropologist Hugh Gusterson has revealed a similar boundary-setting rationale among U.S. nuclear weapons scientists, who by believing that nuclear weapons would never be used, rationalized their work and created ethical partitions to their daily work life. When asked if he felt that all work in biological weapons was to be considered a crime, Gennadiy constructs additional justifications, “Well, people who think that weapons designers are criminals... it’s just not true. Because the people who did that work, on top of everything else, were doing work that was primarily to develop defenses against weapons of mass destruction.”



**GUENNA WORKED FROM THE
SECRET CITY OF STEPNOGORSK,
KAZAKHSTAN - WHICH DID NOT
EVEN APPEAR ON MAPS UNTIL
AFTER THE COLD WAR.**

Here, Gennadiy is trying to point out the alternative, beneficial civilian work that the scientists were also involved in, instead of focusing all attention on the darker side of their microbiological work.

In 1991, a new set of U.S. government initiatives, called the Nunn-Lugar Cooperative Threat Reduction Programs, were launched to mitigate the proliferation of threats from the former Soviet Union – to include the Soviet bioweapons program.⁵ In the mid-1990s, Gennadiy and his colleagues were funded to dismantle his former bioweapons facility at Stepnogorsk, and to work on peaceful scientific research projects. In reflecting on that moment Gennadiy shares, “I felt very bad! I felt bad about all the effort that had gone into this. We were all upset, of course. It was sad that such a big plant had to be destroyed.” In looking at old photos of the ten twenty-thousand-liter fermenters before their dismantlement, Gennadiy longingly comments that the fermenters were “beautiful.”

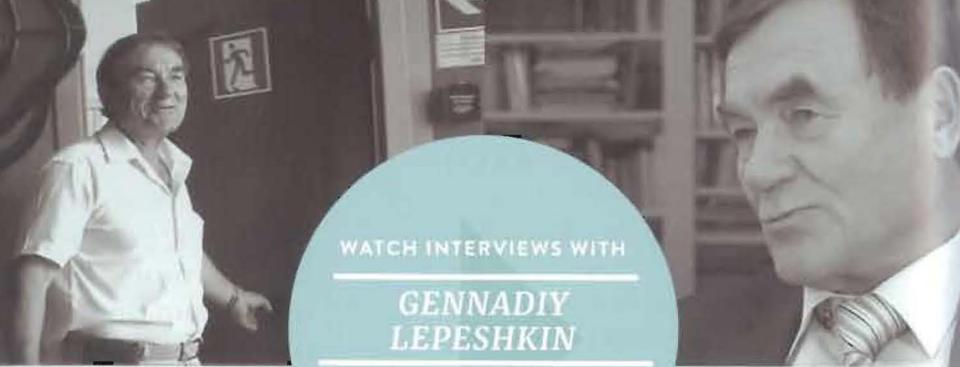
We have been surprised how forthcoming Gennadiy has been in answering our questions to him about his past. When asked generally what he would like people to know about the Soviet bioweapons history, Gennadiy replies, “I don’t have a special noble mission of any kind, but I feel that it would be valuable for people to know how things went as far as that work was concerned, how people lived back then, what they were doing, and what was on their minds. Because that field is one of the most classified the world has ever known, and few people know who the scientists were who were involved in that situation and those things.”

To date, we have received some interesting responses from students watching some of the interviews with Gennadiy. One student wrote that she expected Lepeshkin to be a repentant old man and was surprised to see “a kind and grandfatherly kind of person, at peace with his past.”

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- GENNADIY LEPESHKIN

- ⁴ See: Hugh Gusterson, *Nuclear Rites: A Weapons Laboratory at the End of the Cold War* (Berkeley, CA: University of California Press, 1996); Brian Balmer, “Killing Without the Distressing Preliminaries: Scientists’ Defence of the British Biological Warfare Programme,” *Minerva* 40/1 (Spring 2002): 57-75.
- ⁵ Amy F. Woolf, *Nonproliferation and Threat Reduction Assistance: U.S. Programs in the Former Soviet Union*, Congressional Research Service, March 6, 2012, available at: <http://fas.org/spp/crs/nuke/RL31957.pdf>



WATCH INTERVIEWS WITH
**GENNADIY
 LEPESHKIN**
 IN THE
ANTHRAX DIARIES
 ONLINE

RUSSIAN.CORNELL.EDU/BW/CFM/FILM.CFM

Another student recounted a telephone conversation about Lepeshkin with her grandmother: she was trying to explain to the old woman that doing research into biological weapons must be really exciting and that she would have enjoyed doing that kind of work. Another student who was taking courses in history and biology found the videos especially fascinating: she made connections between the two disciplines and said, to our considerable satisfaction, that history presented by its participants offers much better lessons than the “anonymous history of big events and places.” She wrote that Gennadiy did not appear to be an evil person, even though he dealt with evil forces all his life: “how strange that they seem so normal.” Another student, however, was more bothered by the interviews: “Overall, I was really disturbed by the interviews with Soviet bioweapons scientists. While it seems that the Soviet scientists are able to identify what drove them to continue with the development of weapons of mass destruction in hindsight, they simultaneously reveal that they did in fact feel their work was justified and necessary.” In working with these oral history materials, we desire for our students to experience and wrestle with the complicated social and ethical aspects of science in a security context. The project also aims to help life scientists and policy makers in understanding the various motives that might push future life scientists in crossing wittingly or unwittingly to the darker side of science, and develop policies to identify and prevent such behaviors. Pending further funding, we plan to release a documentary film and interactive multimedia website to the public that reveals more in-depth inquiry of ethical lives of Soviet bioweapons scientists.

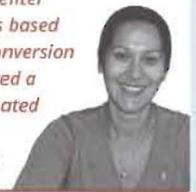
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Sonia Ben Ouagrham-Gormley is an associate professor at the George Mason University (GMU) Biodefense Program. Prior to joining the GMU faculty in 2008, Ben Ouagrham-Gormley spent ten years working as a senior research associate at the Monterey Institute Center for Nonproliferation Studies (CNS). In 1999-2001, Ben Ouagrham-Gormley was based in the CNS Almaty office in Kazakhstan where she conducted studies on the conversion of bioweapons facilities in the former Soviet Union. In 2002-2005, she conducted a study of the Anti-Plague System of Central Asia and the Caucasus and participated in the Biological Weapon Proliferation Prevention program, under the Cooperative Threat Reduction Program funded by the Department of Defense.



SLAWOMIR GRUNBERG

Slawomir Grunberg has directed and produced over 45 television documentaries. He is a winner of the National Emmy Award as well as numerous other awards at the International film festivals including awards for documentaries filmed in Russia. Slawomir's work has appeared on PBS stations and on many television stations around the world. He has received multiple grants from the NEA, NEH, and the New York Council on the Arts. Slawomir speaks English, Polish, and Russian and has worked in Europe, Asia, and the Middle East. He owns and operates LOGTV, Ltd., a film production studio. His complete portfolio can be found at www.logtv.com/tv.



SLAVA PAPERNO

Slava Paperno is an expert on Russian language and culture; over the past 25 years he has produced cutting-edge multimedia tools for teaching. He is leading a very successful Russian language program at Cornell University that he designed around his own innovative ideas, with intensive use of online technologies. His work has been used at schools all over the world. He has written books for learners of Russian, produced numerous multimedia titles, and designed an ethnographic virtual museum Communal Living in Russia, kommunalka.colgate.edu. Working with Slawomir Grunberg, Slava has co-produced several documentaries that explore social issues in post-Soviet Russia. For his numerous projects, he has received major grants from the National Security Agency and the U.S. Department of Education, among many others. His documentaries earned him an award from the American Association of Teachers of Slavic and East European Languages.

