

## FILM REVIEW

---

***The Scientist, the Impostor and Stalin: How to Feed the People.*** Dir. Gulya Mirzoeva. New York: Icarus films, 2017. 54 minutes. Black and white.

The suppression of genetics in the Soviet Union was the great scientific scandal of twentieth century science. It still stands as the paradigm case of illegitimate political intervention into science. This impressive documentary tells the dramatic story in its broad social context of hunger, war, revolution, industrialization, and brutal collectivization of the peasants. Before World War I, Russia and the Ukraine were the bread baskets of Europe. But after the 1917 revolution, failing grain production was a persistent headache of the Soviet government. Strong belief in science motivated crash investment in agricultural research, and the young science of genetics appeared as a magic key to solve the problem.

Nikolai Vavilov, world famous botanist and plant breeder and son of a prosperous merchant, is the hero of the drama. He organized an unprecedented research effort for the Soviet state and became president of the Lenin Academy of Agricultural Science in 1929. Trofim Lysenko, agronomist with scanty education and son of a peasant, is the villain. Through scientific bluff and propaganda in the mass media, Lysenko made a rapid career in Vavilov's research empire, and eventually managed to take over Vavilov's position. In addition, Iosif Stalin is the evil dictator who orchestrates the events. Briefly, Vavilov lost the presidency of the Lenin Academy in 1935, and Lysenko took over in 1938. Vavilov was then arrested in 1940 and died in prison in 1943. The result was an era of Lysenkoism where pseudoscientific "agrobology" replaced genuine genetics and did serious damage to Soviet agriculture. Only with the fall of Nikita Khrushchev in 1965 did Lysenko lose all leading positions.

The suppression of genetics came to a head in the summer of 1948 just as the Cold War was beginning in earnest. A special session of the Academy of Agricultural Science discussed "The Situation in Biological Science." Lysenko's introductory "report" explained how western genetic science was false, reactionary, and useless for Soviet purposes. At the end, Lysenko informed the audience that his report had been examined and approved by the Party Central Committee. In fact, Stalin had read and corrected it personally.

The 1948 session signaled Lysenkoist *gleichschaltung* of research and teaching in biology. Textbooks were purged and leading geneticists lost their jobs. A verbatim report of the proceedings was published in foreign languages for scientists all over the world, to read for themselves the deficient scientific argumentation of Lysenko and his supporters. The result was irreparable loss of international intellectual legitimacy. It is still hard to understand why the Soviet regime would so effectively shoot its own foot.

The present documentary presents rich and fascinating pictorial material in a way that reflects the intellectual climate of the Cold War. By 2019, historical perspectives and questions have changed. Liberal democracy does not look quite as ideal, and science does not look quite as full of truth. More

recent historical studies have shown, for instance, how disputes in Stalinist science were rational and predictable within the narrow limits set by ideological principles and administrative practice. Even Stalin depended on consensus in representative scientific assemblies. Moreover, Lysenko's ideas were not quite as irrational and unscientific as claimed in this documentary. His early work on plant physiology was internationally respected, and his belief in inheritance of acquired characters has been too easily ridiculed. This was a genuinely open and disputed scientific question in the 1930s. At present, there is a significant public movement in Russia to rehabilitate Lysenko as a national scientific hero. I believe better understanding of the historical scientific issues will help resist such attempts.

Perhaps there are also new lessons about freedom of science to be drawn from the "Lysenko affair." The style of big science, that is, grand government-funded and politically-directed research programs and projects, was pioneered in the Soviet Union. The Lenin Academy of Agricultural Science worked very much in this spirit. According to the present documentary, the suppression of genetics is due to Stalin's illegitimate political intervention. Perhaps the suppression is better understood as a consequence of big science, a policy which undermines scientific integrity by a confounding science and politics. Vavilov, Lysenko, and Stalin were all under the spell of scientism, a superstition in the power of science that did not fit the real world.

NILS ROLL-HANSEN  
*University of Oslo*