psychology based on a system of postulates, thereby emulating not only Newton but Hull himself (pp. 268–269). Wertheimer’s analysis, in Chapter 7 of Productive Thinking, of the thought processes underlying Einstein’s development of the theory of special relativity was derived from long discussions with Einstein, a friend and fellow musician from 1921 to 1943.

David J. Murray


In this latest study of science in the Soviet Union, Nikolai Krementsov offers a history of the Seventh International Congress of Genetics, which was supposed to be held in Moscow in August 1937 but did not in fact take place until August 1939—and in Britain rather than the Soviet Union. The cast of characters will be familiar to anyone versed in the history of genetics between the two world wars, for it is in the nature of international congresses to bring together figures large and small, from every corner of the world. What is novel, however, is Krementsov’s use of the plans for this international congress both to elucidate the networks necessary to build a scientific discipline that will transcend boundaries of nationality and political ideology and to show how these networks have to come to terms with the contingencies of political power in those moments when they are transformed into meetings of embodied political subjects.

Intriguingly, Krementsov’s narrative opens with a cosmopolitan group of geneticists sitting around a dinner table, in the Onyx Restaurant of the American Hotel, Amsterdam, turning the menu into an impromptu postcard to be sent to their absent friend, the Russian geneticist Nikolai Vavilov. The first half of the book then settles into a much more prosaic narrative account of the first six international congresses of genetics, focusing especially on Russian participation. Initially, delegates from Russia were vastly outnumbered by those from Britain, the United States, and Germany, but by 1927, on the occasion of the fifth international congress, the size of the Russian delegation was second only to that of its German hosts. This, Krementsov argues, attests to the phenomenal growth of genetics in postrevolutionary Russia, spurred by the promise of renewing and modernizing the agricultural economy, if not the people of Russia itself. By 1932, Russian geneticists were expected to make a very significant contribution to the sixth congress, which was to be held in the United States, but the politics of the Stalinist “great break” meant that only a handful were in fact able to attend, for reasons that were partly financial but also ideological: scientific internationalism was deemed incompatible with the development of a distinctly socialist science. Vavilov, the vice president of the congress, was nonetheless able to persuade the International Organizing Committee to hold the next meeting in the Soviet Union. In late 1936, however, preparations for the forthcoming congress appeared to slow, requests for clarification being matched by reports that the congress had been cancelled and Vavilov arrested. Soviet authorities, in turn, responded by insisting that there was no truth to the news of Vavilov’s arrest—an assertion amply confirmed by Vavilov himself—and by claiming that the organizers simply were insufficiently prepared to mount a congress that would best show the world the scientific achievements of the Soviet Union, the first socialist state. In the subsequent confusion over a possible request for postponement to the summer of 1938, an increasingly anxious, if not skeptical, International Organizing Committee began to search for an alternative location. By the time the official request for postponement was finally issued, the committee had already decided to move the congress to Britain. Though elected president of the Seventh International Congress of Genetics, Vavilov was not allowed to attend and would never be seen again by any of the diners in the Onyx Restaurant.

In the second half of the book Krementsov revisits these ultimately tragic developments by focusing, first, on the evolving relationship between Vavilov and other members of the Russian organizing committee, on the one hand, and Soviet political authorities, on the other. Like many earlier accounts, Krementsov’s depicts the ascendancy of Trofym Lysenko and suspicions of human genetics as legitimating the racial politics of National Socialist Germany as crucially important—but in a more complex fashion than is usually assumed, all in keeping with a byzantine political process whereby making no decision was vastly preferable to making a decision that might be wrong.

Krementsov then attends to the evolving relationship between the geneticists in the Russian organizing committee and their foreign peers, especially those on the International Organizing Committee. While the latter thought that holding the congress in the Soviet Union would be the best way to aid their increasingly embattled Russian colleagues, they also had a responsibility to...
safeguard the political neutrality of the discipline, regardless of collegial obligations. Significantly, however, Krementsov suggests that the organizational details of the session on human genetics that was held during the seventh international congress, in its new, British venue, were carefully designed so as to protect the Russian geneticists from accusations of complicity with National Socialism: Otto Mohr, who tried as much as anyone could to ensure that the congress would be held in the Soviet Union, strongly advised H. J. Muller not to “mix the genetics congress with a eugenics congress!” (p. 121).

Krementsov’s third and final set of considerations is more general. Scientists, such as the geneticists on whom he focuses, are caught between the demands of science, understood as an endeavor that transcends national boundaries and political ideology, and their political patrons’ expectations of science, understood as an endeavor that speaks to the needs of the state, both material and symbolic. This puts scientists in a difficult position, because the resulting ambiguities and obscurities are incompatible with the clarity and trust on which their private networks rest; and where these networks fail, so too do the cosmopolitan ambitions of science. In sum, scientists are best understood as political subjects torn between the demands of the nation and the demands of the republic of letters.

This said, Krementsov’s account of the negotiations over the location and timing of the Seventh International Congress of Genetics provides little insight into either the extent of Vavilov’s political allegiance to the Soviet Union or the political obligations of Vavilov’s foreign peers. In the absence of such detail, what is left is the autonomous subject of the liberal imagination, sometimes seeking an impossible accommodation with sovereign power and at other times free to assert the political autonomy of science. If this is a fair reading of International Science between the World Wars, it would then seem that Joseph Stalin still casts a long shadow; but this perhaps is the unshakeable burden of history.

**Paolo Palladino**

**Christopher Lawrence.** Rockefeller Money, the Laboratory, and Medicine in Edinburgh, 1919–1930: New Science in an Old Country. (Rochester Studies in Medical History.) ix + 373 pp., figs., notes, bibl., index. Rochester, N.Y.: University of Rochester Press, 2005. $85.

This ambitious and interesting study looks at a big subject in a small place. The big subject is the creation of modern, laboratory- and science-based medicine in the first decades of the twentieth century. The small place is Edinburgh—its university, its medical school, and the Royal Edinburgh Infirmary. Edinburgh may seem an odd place to look for insights into the origins of modernity. Once a medical vanguard, Edinburgh had by 1920 become a conservative holdout for the aging traditions of pathological anatomy, bedside observation, and individual judgment, which modernizers sought to replace with physiology, laboratory tests, and expert science. Reform in the city was patchy and contested—and easily stalled or reversed. Yet for the medical historian Christopher Lawrence, it is precisely its devotion to older traditions that makes Edinburgh the right place to understand modernization as process and lived experience. The epicenters of change—New York, Berlin, London, Cambridge—most clearly prefigured the future, but they were atypical of the process that made modern medicine prevail everywhere.

Lawrence aims to dispel the sense of inevitability that, intended or not, pervades many histories of modern medicine. In Edinburgh, a modern future was plainly not inevitable. He also wants to make us see that those who resisted or rejected modernity did so not out of unthinking reaction but because the traditions to which they were devoted also embodied Scottish values of egalitarianism and civil responsibility that were hardly unworthy. Edinburgh medicine was part of a functioning—and in many ways admirable—social system. Building on the seminal work of Steve Sturdy and Roger Cooter (“Science, Scientific Management, and the Transformation of Medicine in Britain, c. 1870–1950,” History of Science, 1998, 36:421–466), Lawrence argues that modern medicine prevailed not because it was inherently superior to other arrangements but because—for better and for worse—it was more congruent with what modern society was becoming. It is a boldly revisionist historiography: how well does it succeed?

The central event of Lawrence’s case study is the establishment, in 1921, of a laboratory of clinical biochemistry at the Royal Edinburgh Infirmary. This project was the result of a transatlantic coalition of modernizers: the Rockefeller Foundation, which brokered alliances and paid for the laboratory and part of the salary of its first chief, Jonathan Meakins; the Medical Research Council, which came up with funds for research; and an embattled coterie of medical professors, which included Meakins (therapeutics), George Barger (medical chemistry), and Arthur Cushny (materia medica). These reform-