Obituary

Julian Perry Robinson
(1941–2020)

Chemist and lawyer who shaped international weapons conventions.

In 1981, the US government publicly accused Soviet-backed forces in south-east Asia of waging toxin warfare and violating their legal obligations under the 1925 Geneva Protocol and 1972 Biological Weapons Convention. It alleged that aircraft dispersed 'yellow rain' containing mycotoxins that were "not indigenous to the region". Julian Perry Robinson, working alongside biologist Matthew Meselson at Harvard University in Cambridge, Massachusetts, established that what actually fell was wild-honeybee faeces containing naturally occurring toxins. He died on 22 April, aged 78.

This episode illustrates how Robinson helped to bring rationality into a field in which emotions often run high. His ideas influenced the negotiation and implementation of international law. In a major 1970 report for the World Health Organization, he began to articulate the idea that an ability to respond to natural-disease outbreaks could considerably diminish incentives to use chemical and biological warfare (CBW). He called for the strengthening of disease surveillance and other key areas in public health, and suggested that if there was to be "any chance of success", a clear plan was needed for communicating information with the public. His death from complications of COVID-19 is therefore particularly poignant.

Robinson was born in Jerusalem in November 1941. His interest in CBW began during the final year of his chemistry degree at the University of Oxford, UK. Working under the economist John Jewkes, his dissertation examined how the study of chemical warfare during the Second World War stimulated the synthesis of new types of organic compounds. On graduating, he spent four years with Kilburn & Strode Chartered Patent Agents in London before taking a position at the fledgling Stockholm International Peace Research Institute (SIPRI) in 1968, and becoming its focal point for CBW studies. From the mid-1970s, he was also central to the highly influential CBW Study Groups convened by the Pugwash Conferences on Science and World Affairs, which brought together scientists from east and west to discuss disarmament.

At SIPRI he had a prominent role in a major review of CBW. This resulted in the classic six-volume study *The Problem of Chemical and Biological Warfare* (1971–75). He developed the concept of a cross-cultural 'taboo' on such weapons, and detailed the process of 'assimilation' that leads to their acceptance into existing military organizations. For example, chemical weapons went unused during the Second World War not because of deterrence, but because specialized First World War-era chemical warfare organizations were sidelined by conventional military institutions.

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He met Mary Kaldor, his partner of more than 50 years, at SIPRI, and they returned to the United Kingdom in 1971 to join the Science Policy Research Unit at the University of Sussex in Brighton. Robinson spent the rest of his career there establishing the Harvard Sussex Program, a group for research, communication and training in support of informed public policy towards CBW issues that he co-directed with Meselson. There, he spotted another barrier to assimilation: existing technologies constrain emerging ones as they pass through a 'weapons succession process'.

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Part of Robinson's influence lay in identifying and seeking to close loopholes through which suppressed CBW technology might develop. He provided key inputs into the negotiations for the Biological Weapons Convention and the 1993 Chemical Weapons Convention. He advocated for proper implementation of the 'general purpose criterion' – the concept that malign intentions rather than physical objects should be prohibited – as the main mechanism by which the treaties could avoid being undermined by advances in science and technology.

In the years just after the cold war, he stood firm against what he considered to be a "creeping legitimization" of those chemical and biological weapons not tooled for mass destruction (non-WMD CBW). In 2008, he warned that chemical weapons lent themselves particularly to the new types of conflict experienced in places such as the Balkans, Afghanistan and parts of Africa, suggesting the taboo against CBW could become harder to maintain.

These became the hallmark issues that he encouraged numerous research students to tackle. His mentoring of generations of scholars and policy practitioners means his ideas will continue to shape both treaties for decades.

He officially retired from the University of Sussex in 2007, but continued to work at the Harvard Sussex Program, happiest when receiving visitors who came to discuss ideas and work in the extensive and unique archive on CBW issues that he and Meselson established. One of his last research projects resulted in a series of vignettes from across history that he described as "lessons about CBW" for future generations. He also continued to write detailed chronologies – including one on 'novichoks', after the nerve agents were used in Salisbury, UK, in 2018.

I became a student of Julian's in 1996, and continued to work alongside him at the Harvard Sussex Program until he went into self-isolation. One of our last conversations was about establishing a small study group to consider whether his influential chronology on chemical weapons in Syria might reveal patterns that those guarding against CBW should know about. Always modest, he was hesitant about whether people would spend time reading it. When I suggested some might, he smiled and said "Well now, there's a thought. Let's talk more on the other side of all of this."

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