

International Conference on Biosafety and Biorisks

March 2–3, 2005

[Conference Site Map](#) | [Home](#)

Overview

Agenda

Conference Report

Attendees and Speakers

Use of Materials

Conference organized by:

Center for Biosecurity of
UPMC

World Health Organization
Communicable Disease
Surveillance and Response
Office

Conference sponsored by:

The Nuclear Threat Initiative

[Home](#) > [Events](#) > [Biosafety and Biorisks Conference, 2005](#) > [speakers](#) > [hilgenfeld](#)

Scientific Collaboration in a Time of SARS

Presenter: Prof. Dr. Rolf Hilgenfeld

Prof. Hilgenfeld addressed the role of scientific journals, peer review, the internet, and patent issues to explore the issue of whether existing systems for publishing scientific results are relevant in the midst of an ongoing epidemic.

A new corona virus was identified as the infectious agent causing SARS on March 22-25, 2003 by three laboratories working collaboratively in a WHO Network of Laboratories. Three weeks later the first complete genome sequence of SARS-CoV was published on the internet, and on May 1, 2003 the paper was e-published in Science Xpress. SARS-CoV is most closely related to group 2 coronaviruses. Previous work which determined the crystal structure of Coronaviurs 229E main protease dimer enabled construction of a homology model of the SARS-CoV enzyme on April 13, 2003, and suggested that a compound being developed for use in the common cold, AG7088, could be a good starting point for the design of anti-SARS drugs.

The scientific review process for this paper was relatively fast, but one of three suggested referees was difficult to contact for judgment after minor modifications in the paper, thus delaying publication until May 13, 2003. Patent application was made quickly on a weekend and did not delay publication.

Hilgenfeld drew the following conclusions:

- The research community has responded extremely quickly to the new threat of SARS.
- Scientific journals managed to keep the scientific standard high through rigorous peer review.
- Pre-publication on the internet is essential for quickly making scientific results available in an ongoing emergency situation.
- Peer review is absolutely essential, but is also the weak link when a single reviewer can delay publication.
- Patent applications can be filed without much delay and in parallel to the ongoing scientific review process.

On the topic of international scientific collaboration during and after an epidemic outbreak, Hilgenfeld explained that during the SARS outbreak, Chinese science opened for international collaboration, which created attractive opportunities for researchers outside of China and increased access to samples. Sharing samples was a problem in several cases, but not among the crystallographers. Funding opportunities for collaborative projects on SARS were announced during and shortly after the epidemic, but the funds often became available up to one year later. Ethical issues on the quality of informed consent of the patients donating blood samples were addressed, and procedures were adopted to ensure confidentiality of samples and health information for SARS patients.

- Summary by [Richard Waldhorn, M.D.](#)

[return to top](#) [next summary](#)