SCIENCESCOPE

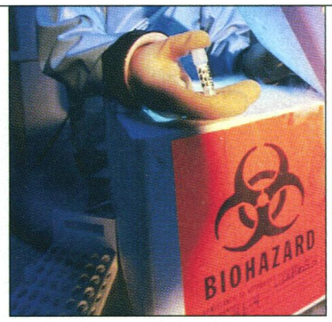
edited by JOCELYN KAISER

Scrutiny Ahead for Pathogen Labs

Researchers who study dangerous infectious agents will soon have to comply with what some fear will be onerous new safety restrictions. Next week, the Centers for Disease Control and Prevention (CDC) plans to issue a set of pathogen transport rules designed to reduce the risk of biological sabotage by imposing strict lab standards.

The rules are required by a new terrorism law passed in response to an incident last year in which an Ohio man obtained bubonic plague from a supplier by faking documents. All research labs that ship or obtain pathogens on a list of about 40 viruses, bacteria, fungi, and toxins will have to register with CDC and file forms for each shipment. Such labs already follow voluntary CDC biosafety rules, but now they will be inspected to ensure they meet safety criteria based on the guidelines that are now being drafted, says CDC's Stephen Morse.

Some observers say the rules will create new layers of red tape for little real gain in safety. "This is a major mess and a folly," says virologist Karl Johnson, a former director of CDC's special pathogens branch. And University of New Mexico virologist Brian Hjelle worries that small labs won't be able to afford the biosafety staff and facility upgrades required by the rules, which are enforced with criminal penalties. "What does all this have to do with terrorism?" Hjelle asks.



BRIAN R. WOLFF/USAMRIID

Boxed in? Rules on pathogen safety could hinder research.

Morse says CDC has received few complaints about the rules, proposed in June, but Hjelle and some other researchers note that the comment period lasted only 30 days and fell during summer vacation. To register, labs must submit an initial self-inspection to CDC by February.

For Hire: Ten Old Hands

Talk may be cheap, but some of the nation's most prominent science policy analysts are hoping that companies and universities will pay generously for advice on how to manage their R&D affairs.

The new venture is called the Washington Advisory Group (WAG), and its cachet lies in the political savvy of its senior fellows—10 men at or beyond normal retirement age. The list includes three former presidential science advisers—Allan Bromley, Frank Press, and Edward David—as well as former National Science Foundation Director Erich Bloch, former National Institutes of Health Director James Wyngaarden, former NASA chief Robert Frosch, and Alan Schriesheim, who just stepped down as head of Argonne National Laboratory.

The group is the brainchild of Robert White, former president of the National Academy of Engineering (NAE). "We're a virtual consulting firm," says Managing Director Bruce Guile, a former NAE staffer. "The idea is that clients will be served directly by one of the senior fellows, who can offer them a wealth of experience and knowledge." Asked about the firm's older-white–male lineup, Guile said the fellows "would like to see women and minorities added to the mix."

WAG's first customer is the French oil drilling giant Schlumberger Ltd., which wants a review of its R&D operations. Guile says the group also hopes to attract philanthropies looking to reshuffle their grants portfolios and universities hoping to cash in on discoveries by their faculty.

"Although we expect to be profitable, the real point is to make a contribution to the nation's R&D effort," David says.

Scripps Sued Over Integrin Research

Scores of labs studying cellular adhesion proteins known as "integrins" will be watching a lawsuit filed on 19 July by Telios Pharmaceuticals of San Diego against David Cheresh of the Scripps Research Institute, a leader in integrin research. Telios wants researchers using a discovery on which it owns a patent to sign a licensing agreement—even those who aren't currently involved in commercial projects—and it is seeking a federal court injunction to stop Cheresh's research.

Integrins have potential commercial value, particularly for treating cancer, because they may be used to regulate tissue growth. Telios and its parent company, Integra LifeSciences Corporation of Plainsboro, New Jersey, own a 1988 patent on a basic discovery in the field—a 3-element amino acid sequence known as RGD. Telios is suing Cheresh, Scripps, and a German research partner, Merck KGaA, for allegedly infringing on its RGD patent.

Scripps declined comment, but Cheresh says he thinks the case could be "precedent-setting" if it interferes with research. Years ago, Cheresh says, the discoverers of RGD shared materials freely with the community, but their invention now belongs to Integra. Fred Cahn, Integra vice president, says, "We believe [Scripps and Merck KGaA] have a drug candidate in development," and hope to negotiate a license. In general, Cahn says, "we believe that if people are doing this research [with RGD], they should obtain a license."

Washington, DC, patent attorney Kate Murashige notes that the patent at issue is "a central concept" in integrin research. While only a subset of the hundreds of integrin researchers are likely to be affected, says one, Eric Brown of Washington University, the legal threat is still worrisome: "Wouldn't it be terrible if you had to consult a lawyer before you could do an experiment?"

Cancer Institute to Propose 'Genome Anatomy' Project

The National Cancer Institute (NCI) is about to unveil a new battle strategy in the war against cancer. Later this month, NCI Director Richard Klausner plans to propose an ambitious new initiative to develop technologies for characterizing the genetic fingerprints of cells and assessing their tumorgenic potential. "We want to move forward in developing a resource and [the] intellectual infrastructure for reading all genes," Klausner told *Science*.

The Cancer Genome Anatomy Project, as it's called, will involve creating cDNA libraries of normal and cancerous breast, colon, and prostate tissues to be made available as a public resource. With these libraries, researchers will be able to determine what genes are active at various stages of cancer's development. To reach this goal, NCI will also come up with standards for acquiring, analyzing and preserving tissues used to make the cDNA libraries. It also plans to push computerized technologies for analyzing gene expression in both the clinic and the lab.

The project is one of several developmental diagnostics programs for which Klausner hopes to get $79 million in 1998, of which $50 million will support laboratories developing molecular-based diagnostic tests, according to NCI's wish-list, known as the 1998 "bypass budget." Most of the remaining $29 million would go toward establishing tissue banks and setting up projects to match the genetic fingerprints to various stages of disease and patient prognoses. An informatics infrastructure will link these resources to the cancer community, Klausner says. The Genome Anatomy plan must pass review by NCI's scientific advisers, but Klausner hopes it will be up and running next year.