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EMERGING INFECTIOUS DISEASES:

MEETING THE CHALLENGE



WHY A CONFERENCE ON EMERGING INFECTIONS?

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In 1959, René Dubos wrote a prophetic book, *Mirage of Health*.¹ In the opening pages, he offered this reflection:

Life is an adventure in a world where nothing is static, where unpredictable and ill-understood events constitute dangers that must be overcome, often blindly and at great cost, where man himself, like the Sorcerer's Apprentice, has set in motion forces that are potentially destructive and may some day escape his control. The very process of living is a continual interplay between the individual and his environment.

Dubos's formulation reminds us that, in addressing emerging infections, we are considering only the latest reflections of the biological triangle of forces—man, microbial world, and environment; we are, in effect, looking at a recent snapshot of the effects of the ancient, continuing, and no doubt ongoing series of fluxes that pose clinical challenges and at the same time press us to see man as an element in a complex ecosystem.

Increasingly, we must address not only problems in clinical management, but also fundamental questions of microbial mutation and adaptation, host defense mechanisms, epidemiology, and, importantly, prevention. We have been naive about the eternal triangle, and with good reason. It was only a little more than 100 years ago, after all, that bacteria were discovered and the germ theory of disease emerged. The remarkable success of vaccines and antimicrobials in combatting infectious disease has been matched, as Dubos predicted, by new challenges.

Infectious diseases continue to pose severe and increasingly complex problems. The appearance of Legionnaires' disease in 1976 and Lyme disease a year later made it clear that infectious diseases were still very much with us, a fact underscored by the appalling worldwide epidemic of HIV infection, by the

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resurgence of tuberculosis and appearance of outbreaks of Hantavirus and Ebola virus, and by cryptosporidiosis that affected hundreds of thousands in a single waterborne outbreak in the Midwest.

As David Weatherall has said, "It appears, therefore, we still live in a hostile world and that infectious disease is always with us. It is clear we will always be fighting a battle for survival in a constantly changing world of microorganisms in which we co-exist."

The New York Academy of Medicine was proud to host this conference. It did so in confidence that the pressure of the need to know will lead to continuing progress. The papers that follow clearly show the knowledge being brought to bear on the issue of emerging infectious diseases and point to progress to come.

REFERENCE

1. Dubos R. *Mirage of Health: Utopias, Progress and Biological Change*. New York: Harper and Row; 1959.