

Richard Chaisson

Thrust unexpectedly into the emerging AIDS crisis, Richard Chaisson found his niche at the AIDS-TB convergence. He is now successfully applying lessons learned locally to questions with a global reach.

It's 8:30 a.m. in Baltimore on a chilly December morning and Richard Chaisson is in his office at Johns Hopkins University, giving a World Health Organization (WHO) officer a critique of the agency's latest tuberculosis (TB) treatment guidelines. A half-hour later, Chaisson is upstairs in the hospital's AIDS clinic, conferring with residents, social workers, pharmacists and nurses about the patients in the 22-bed inpatient ward.

Chaisson serves only a month each year as the attending physician in the AIDS section he was hired to run in 1988; his current duties as director of the university's Center for TB Research (CTR), which he conceived a decade later, keep his attention divided between study sites in Baltimore, Brazil, Haiti and sub-Saharan Africa.

The infectious disease specialist has never had much desire to work full-time as a clinician. He has instead combined hands-on experience with a background in epidemiology to help solve public health problems on an ever-expanding international scale.

As a resident in San Francisco General Hospital during AIDS' initial emergence, Chaisson quickly realized he didn't have to go overseas to join the battle of 'man versus microbe.' It was in that urgent, uncertain climate that he began to understand how he could make his desired impact: by investigating the questions that cropped up in his own line of sight—and applying their answers to population-level interventions.

"How do you do something that has a global impact?" Chaisson asks. "It's hard to act on a grand level most of the time, but that kind of thinking is what inspires me."

Chaisson and his colleagues have built the CTR to international prominence and secured \$111 million in grants in less than seven years. Chaisson, who now focuses primarily on TB-HIV coinfection, last year reached what he calls his personal high point: a \$44.7 million award from the Gates Foundation to support his Consortium to Respond Effectively to the AIDS-TB Epidemic (CREATE).

Among residents in the AIDS clinic, Chaisson is known for the frequent wagers he proposes—a box of Godiva chocolates being the customary stakes—on the accuracy of their diagnoses. In a snapshot on his bulletin board, the familiar foil box has been superimposed onto the palm of a hand blanketed by a severe rash. When the patient was admitted, the residents quickly assumed she'd contracted syphilis, but Chaisson insisted they test for measles. The residents won the prize.

"This is one way that [Chaisson] gets them to choose a diagnosis and then take ownership of it," says inpatient coordinator Jo Leslie, who has worked with Chaisson since he arrived at the university in 1988. "He also likes to be special. You don't go out and get Godiva by the pound because you just want to hide out in the crowd."

It's also clear that Chaisson wants the residents to know the value of vetting their assumptions. He sees the clinic as a candy store for new information—but only if one asks the right questions. Some of his earliest research, conducted when AIDS was stigmatized as a gay man's disease, explored the increasing rates of HIV infection among intravenous drug users. Working in San Francisco's drug treatment centers, he discovered that more than half the heroin users were also shooting cocaine, and that methadone would therefore be ineffective as the key anti-HIV intervention for them.

Chaisson tried to drop out of medical school after his first year, and says he has always eschewed long-range planning. But more often than not, it

would seem, fate has offered him sweeter alternatives. When he failed to line up funding for a post-residency fellowship, he was forced to take part-time work in both the AIDS and TB clinics at San Francisco General Hospital.

HIV is the strongest risk factor for progression to active infection in people with the latent form of the TB parasite, and TB has become the world's leading killer of people with HIV. For years, however, few showed much interest in their connection. Chaisson was uniquely positioned to take an early interest in the two killers' symbiosis. Luck later brought him to Baltimore, a city that had been using directly observed therapy (DOTS) since the 1970s. In 1991 the city tabbed him to run its TB program, opening the door to research that influenced the US treatment guidelines.

Chaisson also served on the panel that revised the WHO's most recent TB treatment guidelines, and says he was frustrated when a treatment regimen—untested but popular with member states for its low cost—was included as an alternative despite his and others' protests that it was inferior. "Some people feel it's better to have inferior options than no options at all. I'm on the side for doing it right and aiming for the best," he says.

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In 1998, Chaisson wanted to travel to London, where his niece was attending school. He persuaded Kevin De Cock, then at the London School of Hygiene and Tropical Medicine, to let him deliver a lecture to De Cock's students. The result was a synthesis of nearly a decade's worth of thinking about the deficiencies of the most prevalent TB control measures.

"After that talk I started thinking about what he was saying," says De Cock, who now works for the Centers for Disease Control in Kenya. "DOTS was not sufficient in areas where HIV prevalence was high, and we needed to develop additional interventions." De Cock persuaded Chaisson to let him further develop those ideas and the result was a scathing missive that challenged the WHO orthodoxy (*Int. J. Tuberc. Lung Dis.* 3, 457–465; 1999).

The paper became a blueprint for CREATE, Chaisson's seven-year project on large-scale interventions in Zambia, South Africa and Brazil. Two of the studies will compare the value of community education projects and measure the impact of expanding conventional therapy in reducing active TB rates. "The issue is not so much developing new technology—but thinking about ways to apply existing technology at the population level," he says.

A third study will determine if adding IPT to antiretroviral drug therapies will reduce active TB rates among AIDS patients in Brazil—a question of increasing importance as antiretroviral drugs become more accessible.

Chaisson is also finalizing a US National Institutes of Health study on whether DOTS can improve treatment compliance among AIDS patients in South Africa. But Bush administration rules that the project use only name-brand, US-approved drugs have created cumbersome red tape, he says.

Chaisson's grant from the Gates Foundation, he says, will allow him to dive headlong into his project. "I've put so much thought into this and it's big and bold," he adds. "And it finally came together."

Bruce Diamond, New York