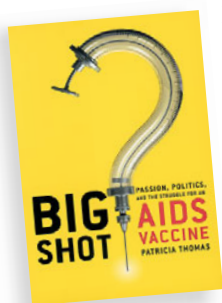


► **Big Shot: Passion, Politics, and the Struggle for an AIDS Vaccine**

PATRICIA THOMAS

Public Affairs, New York, 2001, 416 pp,
\$27.50 hardback
ISBN 1-89-162088-6



In the preface to Patricia Thomas's history of recent attempts to create an AIDS vaccine, she states what is probably the book's underlying thesis. She claims that

“social attitudes about AIDS, careerism and timidity among bureaucrats, and corporate anxieties about profits and liability have all been roadblocks to vaccine research and development.” While *Big Shot* is not an analytical academic work, and proving a thesis is not Thomas's primary goal, the image of diligent research scientists frustrated in their efforts by nonscientific barriers is central to the story the author tells.

More than anything else, *Big Shot* is a detailed story, an informed journalistic account of the search for a “safe, effective, affordable” vaccine that will slow and ultimately halt the global AIDS pandemic. Unfortunately, as Thomas illustrates, there is no “outspoken public constituency” for an AIDS vaccine. Because of the lack of public pressure, decisions on funding for vaccine research have been made slowly by the leadership at the NIH and by biotechnology companies concerned primarily with their bottom lines.

Initially, the NIH had little interest in the development of an AIDS vaccine. Thomas explains that in the 1980s and early 1990s, vaccine research was “disdained” as “lowly product development work.” The NIH leadership has always been concerned primarily with basic science, and it thought that investment in vaccine research should be the responsibility of pharmaceutical and biotechnol-

ogy companies. This is, in great part, what happened, and much of the book focuses on the travails of certain scientists in industrial, academic, and government laboratories in their search for a vaccine.

Thomas depicts these scientists as the real heroes in the struggle. She focuses on researchers associated with Chiron and Genentech, the two most important biotechnology companies initially involved in vaccine development. The story of retrovirologist Kathy Steimer is particularly compelling. Steimer designed Chiron's gp120 vaccine and became a vice president at the company before dying of lung cancer in 1996. A better-known figure in the book is Don Francis, a former public health officer at the Centers for Disease Control and Prevention who became famous in the late 1980s for his outspoken support of safe-sex practices among gay men. Francis joined Genentech's AIDS vaccine efforts in the early 1990s, but he ultimately founded a new company (VaxGen) with Robert Nowinski, which would undertake the world's first efficacy trial of an HIV vaccine.

Public trials of AIDS vaccines proved to be great stumbling blocks for the U.S. government. In 1994, Anthony Fauci, director of the NIH's National Institute of Allergy and Infectious Diseases, decided not to support testing of gp120 vaccines. Although this decision had a strong chilling effect on vaccine funding, it did not completely stop development, as Thomas explains. In the face of great skepticism, Francis and Nowinski's VaxGen began efficacy trials in the United States and Thailand four years later, giving further credence to vaccine development and paving the way for future trials.

Because trials are ongoing, the story of the search for an AIDS vaccine is not yet complete, which forces Thomas to leave us wondering when and if a successful vaccine will be developed. Other than this unavoidable uncertainty, the book's major weakness is also its great strength: the voluminous amount of data contained in its pages. Although *Big Shot* is an excellent resource for those seeking informa-

tion on the key players in AIDS vaccine research, it is not an exciting read. Too long by about 100 pages, the book reads at times like a series of newspaper articles strung together with little editing. The author tries to spice up the dry and sometimes arcane details of the science with anecdotes about the scientists, but these are often strained and inappropriate. In the end, one is left wondering who the primary audience for the book is, a dilemma the author and her editors seem not to have solved.

These criticisms aside, Thomas has acquired and presented a great deal of essential information about vaccine research and the scientists who conduct it. She has read widely in the scientific literature and the history of vaccinology, and she draws on 175 interviews with people involved at all levels of research and policy-making. This data will be critical to all future histories of AIDS research, and it makes *Big Shot* useful to anyone following current developments in the field.

—REVIEWED BY RICHARD A. PIZZI

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AIDS Vaccine Research

Flossie Wong-Staal and Robert C. Gallo, Eds.
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