Researching new diseases: assumptions and trajectories

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Abstract
New diseases in humans and animals have been the subject of considerable research as well as policy development and popular attention. Researchers commonly proceed on the basis of plausible assumptions about mechanisms, pathways, and dangers but seldom question the assumptions themselves. Studies in the history and sociology of science show that research trajectories are conditioned by social, political, and economic arrangements. The assumptions underlying research into three new diseases-devil facial tumor disease in Tasmanian devils, AIDS in humans, and leukemia in soft-shell clams—are examined, and dominant and alternative research programs compared. In each case, most research has assumed the disease is spread through "natural processes", while research about possible human influences has been left undone.

Keywords
trajectories, researching, diseases:, assumptions

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Abstract

New diseases in humans and animals have been the subject of considerable research as well as policy. The basis of plausible assumptions about mechanisms, pathways, and dangers but seldom question the basis of plausible assumptions about mechanisms, pathways, and dangers but seldom question that research trajectories are conditioned by social, political, and economic arrangements. Tumor disease in Tasmanian devils, AIDS in humans, and leukemia in soft-shell clams—are examined. Most research has assumed the disease is spread through “natural processes”, while research about public health policies has shown that research trajectories are conditioned by social, political, and economic arrangements.

Keywords

new diseases, research trajectories, Tasmanian devil facial tumour disease, AIDS, soft-shell clam leukemia

Introduction

New diseases pose both dangers and opportunities. The dangers are obvious: possible devastation through the natural process of evolution, reduced biological resistance and less knowledge about how to combat them. The dangers are obvious: possible devastation through the natural process of evolution, reduced biological resistance and less knowledge about how to combat them. The disease is spread through “natural processes”, while research about public health policies has shown that research trajectories are conditioned by social, political, and economic arrangements.

New diseases also offer an opportunity to learn. Because they are new, it is often possible to determine how to prevent related diseases, ideas for treatment, and clues about resistance. Understanding the new transfers of simian or other viruses to humans, for example through xenotransplantation.

There is a huge amount of research on many new diseases. AIDS in particular has received intensive research into the origin of the disease. However, there has been little study into how research is conducted. Metastudy is the domain of the field called science and technology studies (STS), which examines science, technology, and medicine (Hackett et al. 2008, Jasanoff et al. 1995).