

Biomedical Innovation in Late Socialist Cuba

The collapse of the Cuban revolutionary government has been predicted since its victory in 1959. Despite over fifty years of US embargo and the collapse of the Soviet Union, it persisted. Since the surprise 2014 *rapprochement* between Barack Obama and Raul Castro, supporters and detractors anticipate that Cuba will soon yield to the free market. Yet one of the hallmarks of the revolutionary Cuban government under both Castros has been its ability to adapt, endure and survive, in part through concerted renegotiations of ideological positions alongside strategic national campaigns aimed at promoting unity and national autonomy (Gordy, 2006). Cuba, long held as the producer and exporter of the world's best tobacco, is now garnering attention for its latest export: lung cancer vaccines (Patel, 2015; Quinn, 2015).

Cuba's healthcare and biopharmaceutical sectors exemplify the island's reputation as exception (Briggs, 2011), hailed as evidence of the revolutionary government's ingenuity in the face of scarcity. This socialist research infrastructure that developed therapeutic vaccines targeting lung cancer emerged as part of a concerted effort in the 1980's to develop a thriving biotechnology enterprise, oriented with the "double promise" of improving the health of the population and supporting the financial welfare of the Cuban socialist state (Reid-Henry 2011). The iconic image of Fidel with his cigar as the face of Cuban socialism may be fading, but a new faceless force of this biomedical promise is emerging, one which does not neatly fit into binary categories of socialism or capitalism.

In 2014, the Cuban Center for Molecular Immunology reached an agreement to license one therapeutic lung cancer vaccine, Cimavax, for clinical trials to the prominent New York's Roswell Park Cancer Research Institute (RPCI), a deal negotiated by New York Governor Andrew Cuomo. Cimavax emerges in a larger landscape of immune-modulating cancer treatments representing a cutting edge form of cancer research and

treatment (Lee, 2015). This therapeutic cancer vaccine aims at treating rather than preventing cancer through marshaling the body's immune responses. It offers a dramatic shift in the conceptualization of cancer treatments, which typically operate through modes of destruction, with varying degrees of specificity: chemical, radiologic or excisional.

In my research trip to Cuba this summer I began to establish connections, background information, preliminary interviews and observations related to two themes: 1) pharmaceutical production, innovation and circulation; and 2) tobacco production and use. These connections and data inform my dissertation proposal and long-term fieldwork to be conducted in the 2017 -2018 academic year. During my time in Havana and Viñales, Cuba, I made connections with several organizations likely to assist with procuring an academic visa for this period. I conducted formal interviews with healthcare providers and generated field notes from observations in clinics, pharmacies, and sites related to tobacco cultivation. I interviewed tobacco producers and sellers, including those selling on the black market. Finally, I began the process of making contacts with organizations and individuals working on the use, development and marketing of cancer vaccines.

My summer research built crucial bridges in support of my dissertation fieldwork and generated a list of questions and challenges I will continue to work on over the next academic year as I prepare for long-term fieldwork following my qualifying exams. I will extend this research and preparation prior for my next trip to Cuba by investigating the discursive footprints of Cuban pharmaceutical innovation as it becomes publicly available, reviewing Cuban and US media coverage, scientific papers and legislative debates. This year I focus my coursework on global pharmaceuticals, anthropology of the contemporary, post-socialism and Cuban literature and culture.

The results of this summer research helped reshape the areas of inquiry and theoretical terrain I intend to pursue with my dissertation research. Principally, I have decided to scrutinize a powerful thread of medical anthropological literature generated over the last two decades: the concept of pharmaceuticalization. A sizable body of medical anthropology literature has convincingly argued that pharmaceutical innovation and proliferation are intimately tied to capitalism and the logic of expanding markets (Dumit, 2012; Healy, 2006; Petryna, 2006; Peterson, 2014). In Cuba, the development and travel of lung cancer vaccines offers new possibilities for examining the interplay of ethics, ideology and interest in biopharmaceutical development and commercialization. Inverting the logics of innovation and the flows of global health assistance, the proliferation and travel of Cuba's innovative lung cancer vaccines demands a re-consideration of the major anthropological theories in circulation on pharmaceuticalization and global health. Innovation and proliferation are terms strongly associated with capitalist markets, conceptualized in terms assuming the demand for profitability as foundational. My summer research has led me to refine my dissertation research project by asking three inter-related questions. First, how are the notions of innovation and proliferation configured within contemporary Cuban socialism through the formal and informal channels in which cancer vaccines travel? Second, how might these configurations inform a reimagining of pharmaceutical development and use departing from market logics? Finally, how might the proliferation and spread of Cuban cancer vaccines create the conditions for a new form of Cuban socialism amid claims of its imminent demise? Thanks to the support of the Tinker foundation in funding my plane fare to Cuba this summer, I am significantly more prepared to begin my dissertation fieldwork next year.

References

Briggs, Charles

2011 All Cubans are doctors! News coverage of health and bioexceptionalism in Cuba. *Social Science and Medicine* 77(7) 1037-1044.

Dumit, Joe

2012 *Drugs for Life*. Duke University Press: Durham and London.

Gordy, Katherine

2015 *Living Ideology in Cuba: Socialism in Principle and Practice*. University of Michigan Press: Ann Arbor.

Healy, David

2006 The New Medical Oikumene. In *Global Pharmaceuticals: Ethics, Markets, Practices* Adriana Petryna, Andrew Lakoff, and Arthur Kleinman, Eds. Duke University Press: Durham, London.

Lee, Kelvin

2015 Bringing Cuba's Lung Cancer Vaccine to the States. Poasted on August 26, 2015 by AACR Press Office <http://blog.aacr.org/bringing-cubas-lung-cancer-vaccine-to-the-states>

Peterson, Kristen

2014 *Speculative Markets. Drug Circuits and Derivative Life in Nigeria (Experimental Futures)*. Duke University Press: Durham and London.

Petryna, Adriana

2006 Globalizing Human Subjects Research. In *Global Pharmaceuticals: Ethics,*

Naomi Schoenfeld Tinker Report September 2, 2016

Markets, Practices Adriana Petryna, Andrew Lakoff, and Arthur Kleinman, Eds.

Duke University Press: Durham, London.

Reid-Henry, Simon

2010 The Cuban Cure. Chicago, London: University of Chicago Press.