NOTES

1. Power and Knowledge in Drug Marketing

1 This is true even in nearly ideal circumstances – for example, as part of the close communication between teachers and students who have incentives respectively to teach and to learn, and who have books and articles to support their communication. Much knowledge moves only with difficulty.

2 For a general overview of the field, see Sergio Sismondo, An Introduction to Science and Technology Studies, 2nd edn (Chichester: Wiley, 2010).


4 In a fascinating study, Harry Collins shows that technical knowledge moves much more easily when attempts at transmission include face-to-face contact than when they are conducted purely through written texts. This resonates with the pharmaceutical industry’s use of key opinion leaders and sales representatives, as seen in Chapters 5 and 6 of this book. See H. M. Collins, Changing Order: Replication and Induction in Scientific Practice, 2nd edn (Chicago: University of Chicago Press, 1990). Bruno Latour argues that models of the movement of information in terms of ‘translation’ tell us much more than do models in terms of ‘diffusion’. His point is essentially the same as mine on the quasi-substantiality of knowledge. See Bruno Latour, Science in Action: How to Follow Scientists and Engineers through Society (Cambridge, MA: Harvard University Press, 1987).

6 These terms are borrowed from the sociologist Pierre Bourdieu, for example in ‘The Specificity of the Scientific Field and the Social Conditions of the Progress of Reason’, *Social Science Information* 14, no. 6 (1975): 19–47. There is no escaping the sciences’ social structures, even as they remain within the sciences. As Bourdieu says, ‘The “pure” universe of even the “purest” science is a social field like any other, with its distribution of power and its monopolies, its struggles and strategies, interests and profits’. Even the production of ‘objective truth’ requires social conditions. Moreover, action in a field is competitive, a struggle for limited capital among its members. This will be accentuated when some parties have access to considerably more resources for establishing scientific knowledge than have others. See also Pierre Bourdieu, *Language and Symbolic Power* (Cambridge, MA: Harvard University Press, 1981).

7 Antonio Gramsci, *Selections from the Prison Notebooks*, ed. and trans. Quinton Hoare and Geoffrey Nowell-Smith (New York: International Publishers, 1971). Gramsci’s central concern was strategic: to displace conservative (in particular Fascist) hegemony over key institutions in favour of socialist hegemony. I hope that people will be able to use my work in this book in strategic ways, too: to displace pharmaceutical industry hegemony over key aspects of the medical world, in favour of a more democratic medicine.


10 Industry-sponsored studies appear to be as rigorous as other studies, even while


Peter Gøtzsche has a similar attitude, but he sees the hidden actors in terms of organized crime. In a book structured around a great many anecdotes, he also explores how the pharmaceutical industry attempts to dominate medicine. See Peter C. Gøtzsche, Deadly Medicines and Organised Crime: How Big Pharma Has Corrupted Healthcare (London: Radcliffe Publishing, 2013).


22 As long noted, firms rely on hierarchical organizations, rather than always outsourcing. In a classic paper, Ronald Coase argues that the reason for this was the possibility of reducing transaction costs within an organization, compared with between independent actors. See Ronald Coase, ‘The Nature of the Firm’, *Economica* 4, no. 16 (1937): 386–405. Coase’s account has been challenged and supplemented by a number of others that emphasize other factors relevant to the rise and stability of


25 I was introduced to the idea of channel marketing, and to the pharmaceutical industry as engaging in channel marketing, by Kalman Applbaum, ‘Getting to Yes: Corporate Power and the Creation of a Psychopharmaceutical Blockbuster’, *Culture, Medicine, and Psychiatry* 33, no. 2 (2009): 185–215.

26 There is a sense in which this is not unusual. The perceived validity of most knowledge, scientific and otherwise, ultimately rests on trust in its sources. See, e.g. Steven Shapin, ‘Cordelia’s Love: Credibility and the Social Study of Science’, *Perspectives on Science* 3, no. 3 (1995): 255–275. However, medical practitioners may be more removed from core medical evidence than are many other experts.


28 The term ‘marketing era’ and the starting point of my stance here are owed to Kalman Applbaum, *The Marketing Era: From Professional Practice to Global Provisioning* (New York: Routledge, 2004).

29 The theorist of marketing Peter Drucker, writing in the early 1970s, recognized the new marketing era: ‘Selling and marketing are antithetical rather than synonymous or even complementary. There will always be, one can assume, a need for some selling. But the aim of marketing is to make selling superfluous. The aim of marketing is to know and understand the customer so well that the product or service fits her and sells itself. Ideally, marketing should result in a customer who is ready to buy’. Peter F. Drucker, *Management: Tasks, Responsibilities, Practices* (New York: Routledge, 1974), 64–65.

30 As many readers will recognize, the term ‘assemblage’ is taken from Gilles Deleuze and Félix Guattari, for example in their *A Thousand Plateaus: Capitalism and Schizophrenia* (London: Bloomsbury Publishing, 1988). However, my account of assemblage marketing owes more to Actor-Network Theory, perhaps because the construction and stabilization of actor-networks have been more clearly described than have the construction and stabilization of assemblages. For early articulations of Actor-Network Theory, see Bruno Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (Cambridge, MA: Harvard University Press, 1987); Michel Callon, ‘Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Brieuc Bay’, in John Law, ed., *Power, Action and


For a good overview of what is often called ‘disease-mongering’ or ‘selling sickness’, see Ray Moynihan and Alan Cassels, Selling Sickness: How the World’s Biggest Pharmaceutical Companies Are Turning Us All into Patients (Vancouver: Greystone Books, 2005).


38 Jeremy A. Greene, *Prescribing by Numbers: Drugs and the Definition of Disease* (Baltimore: Johns Hopkins University Press, 2007); Ray Moynihan and Alan Cassels, *Selling Sickness: How the World’s Biggest Pharmaceutical Companies are Turning Us All into Patients* (Vancouver: Greystone Books, 2005). In addition, it is widely recognized that diseases change through time, because of interactions among patients, physicians and illnesses; see, e.g. Robert Aronowitz, *Making Sense of Illness: Science, Society, and Disease* (Cambridge: Cambridge University Press, 1998); Jacalyn Duffin, *Lovers and Livers: Disease Concepts in History* (Toronto: University of Toronto Press, 2005); Duffin’s elegant account focuses on two very different diseases, lovesickness and hepatitis C.


43 Promises are central to many aspects of business communication, and in some contexts can help to establish the very things promised, as explored in Mads Borup, Nik Brown, Kornelia Konrad, and Harro Van Lente, ‘The Sociology of Expectations in Science and Technology’, *Technology Analysis & Strategic Management* 18, no. 3-4 (2006): 285–298.


Centers for Disease Control and Prevention, ‘Prescription Opioid Overdose Data’, 1 August 2017 [https://www.cdc.gov/drugoverdose/data/overdose.html] [accessed 17 June 2017]. However, official statistics appear to underestimate overdose deaths, because death certificates often don’t identify drugs; see Christopher J. Ruhm, ‘Geographic Variation in Opioid and Heroin Involved Drug Poisoning Mortality Rates’, American Journal of Preventive Medicine 53, no. 6 (December 2017): 745–753.


For an excellent historical parallel, complete with fascinating analyses, see Nicolas Rasmussen, On Speed: The Many Lives of Amphetamine (New York: New York University Press, 2008). Rasmussen would argue that many of the structures described in this book were already nascent in the 1920s to 1950s, when amphetamines were developed and promoted.


‘About The Joint Commission’, The Joint Commission [https://www.jointcommission.org/about_us/about_the_joint_commission_main.aspx].


67 Dora H. Lin, Eleanor Lucas, Irene B. Murimi, Andrew Kolodny, Caleb Alexander, ‘Financial Conflicts of Interest and the Centers for Disease Control and Prevention's


72 David Herzberg argues that the US has had a number of pairs of addiction problems – to do with licit and illicit drugs – going along with pairs of responses. See David Herzberg, ‘Entitled to Addiction? Pharmaceuticals, Race, and America’s First Drug War’, *Bulletin of the History of Medicine* 91, no. 3 (2017): 586–623.


80 John Hempton, ‘Get Your Opiates for Free: Capitalism Meets the Zombie
2. DATA EXTRACTION AT THE MARGINS OF HEALTH


6 For example, CenterWatch, State of the Clinical Trials Industry: A Sourcebook of Charts and Statistics (Boston, MA: CenterWatch, 2009).


‘Obligatory point of passage’ is Bruno Latour’s term of art for an element required in order for others to form a network. In the case of drugs, we can see marketing as the formation of very large networks. See Bruno Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (Cambridge, MA: Harvard University Press, 1987).


For example, in recent years, challenges to a core piece of the 1962 Act have been slowly working their way through the US courts: drawing on the US’s strong protection of freedom of speech, companies have been chipping away at the FDA’s legal authority to regulate off-label marketing. Joshua M. Sharfstein and Alta Charo, ‘The Promotion of Medical Products in the 21st Century: Off-label Marketing and First Amendment Concerns’, *Journal of the American Medical Association* 314, no. 17 (2015): 1795–1796.


32 The CSDD also helped to support the idea that regulation created a ‘drug lag’, reducing the number of new drugs on the market. In addition to Edward Nik-Khah’s work cited above, see Arthur Daemmrich, ‘Invisible Monuments and the Costs of Pharmaceutical Regulation: Twenty-Five Years of Drug Lag Debate’, Pharmacy in History 45, no. 1 (2003): 3–17.


Outsourcing of the chemistry and the other laboratory studies is common enough that Pfizer had to employ ‘queue management theory’ and the ‘Six Sigma’ approach to factory production developed by Motorola, to make the work more efficient. See F. Christopher Bi, Heather N. Frost, Xiaolan Ling, David A. Perry, Sylvie K. Sakata, Simon Bailey, Yvette M. Fobian, Leslie Sloan, and Anthony Wood, ‘Driving External Chemistry Optimization Via Operations Management Principles’, Drug Discovery Today 19, no. 3 (2014): 289–294.


Here I am drawing on the extensive work of Jill Fisher and Roberto Abadie, who have done excellent studies of Phase I trials and trial participants. See, e.g. Torin Monahan and Jill A. Fisher, “I’m Still a Hustler”: Entrepreneurial Responses to Precarity by Participants in Phase I Clinical Trials, *Economy and Society* 44, no. 4 (2015): 545–566; Jill A. Fisher, ‘Feeding and Bleeding: The Institutional Banalization of Risk to Healthy Volunteers in Phase I Pharmaceutical Clinical Trials’, *Science, Technology, & Human Values* 40, no. 2 (2015): 199–226; Roberto Abadie, *The Professional Guinea Pig: Big Pharma and the Risky World of Human Subjects*, (Durham, NC: Duke University Press, 2010). Abadie’s study was of a number of frequent trial participants in Philadelphia, including a number of anarchists for whom trial income meant that they didn’t have to maintain more permanent jobs. Fisher has interviewed hundreds of Phase I trial participants and dozens of staff at multiple clinics running the trials. Her work addresses day-to-day routines within the clinics, the attitudes and actions of frequent Phase I trial participants, and structures that shape the system. In addition, I have drawn on the systematic account of Phase I trial participation on the website Just Another Lab Rat!, last modified 26 January 2017 <http://www.jalr.org/about_just_another_lab_rat.html>, as well as a number of anecdotal accounts.


3. **GHOSTS IN THE MACHINE: PUBLICATION PLANNING 101**


Alistair Matheson, personal communication. Though they are locally consistent, they may vary from country to country. See Andrew Lakoff, ‘The Anxieties of Globalization: Antidepressant Sales and Economic Crisis in Argentina’, *Social Studies of Science* 34, no. 2 (2004): 247–269.


9 Documents related to Wyeth’s campaign and PC(2) can be found in Prempro Products Liability Litigation, *Drug Industry Document Archive* [http://dida.library.ucsf.edu] [accessed 7 July 2011]. Quotes here are from those documents, unless otherwise noted.

NOTES

13 Speaker at TIPPA Midwest meeting, St. Louis, 2011. Data kindly provided by Elliot Ross.
15 Most measurement of return on investment of publications is in terms of readership. Watermeadow Medical, for example, advertises, ‘we employ unique alternative metrics to identify the most relevant communication channels and measure the true reach of your publications and data’. See Watermeadow Medical <https://www.ashfieldhealthcare.com/gb/healthcare-agency-gb/watermeadow-gb/> [accessed 21 March 2017].
23 Jon N. Jureidini, Jay D. Amsterdam, and Leemon B. McHenry, ‘The Citalopram


25. It was strategic decisions like these that led to the study being part of a lawsuit, and led to the interest in it and the manuscript by Jureidini and colleagues. The manuscript was published as Karen Dineen Wagner, Adelaide S. Robb, Robert L. Findling, Jianqing Jin, Marcelo M. Gutierrez and William E. Heydorn, ‘A Randomized, Placebo-Controlled Trial of Citalopram for the Treatment of Major Depression in Children and Adolescents’, American Journal of Psychiatry 161, no. 6 (2004): 1079–1083.


4. HOSTS AND GUESTS IN THE HAUNTED HOUSE

1 Nikolaos Patsopoulos, John P.A. Ioannidis, A. Analatos Apostolow, ‘Origin and Funding of the Most Frequently Cited Papers in Medicine: Database Analysis’, *British Medical Journal* 332, no. 7549 (2006): 1061–1064. Philippe Gorry analyses a group of ninety-two articles known to be ghost-managed, identified in documents from three legal proceedings. Among other things, Gorry notes that ghost-managed articles were cited approximately ten times more often than were typical other articles in the same journals – and almost none of the difference is explained by a difference in the prestige of the authors (personal communication): Philippe Gorry, ‘Medical Literature Imprinting by Pharma Ghost Writing: A Scientometric Evaluation’ [https://pdfs.semanticscholar.org/5528/9bbf436abb9d1ecdd53ec8062a5d89188c60.pdf] [accessed 3 February 2018]. David Healy and Dinah Cattell had earlier analyzed a subset of that group, in David Healy and Dinah Cattell, ‘Interface Between Authorship, Industry and Science in the Domain of Therapeutics’, *British Journal of Psychiatry* 183 no. 1 (July 2003): 22–27. Unsurprisingly, the two studies come to some overlapping conclusions. Healy and Cattell compare their group of fifty-five ghost-managed articles on a particular drug with other articles on the same drug published in the same period: ghost-managed articles were cited between 2.4 and 2.9 times more frequently than matched counterparts.

2 Most self-citation involves authors citing their own work. Self-citation in this case is interesting because it is much more hidden.


11 In addition, because they are important participants in the world of medical research, journals typically want to make sure that researchers are receiving appropriate credit, even while they are concerned about undue influence. Promoting the right credit as a professional matter within medicine may push in opposite directions than does combatting hidden influence on medical journal articles.
15 Tino F. Schwarz, Andrzej Galaj, Marek Spaczynski et al., ‘Ten-Year Immune Persistence and Safety of the HPV-16/18 AS04-Adjuvanted Vaccine in Females Vaccinated at 15-55 Years of Age’, Cancer Medicine 6, no. 11 (2017): 2723–2731. This was brought to my attention by my colleague Pierre Biron.
19 A number of scholars have made more careful versions of Dr McGrath’s argument, challenging the coherence of the idea of raw data. For an excellent set of articles on the issue, see Lisa Gitelman, ed., *Raw Data is an Oxymoron* (Cambridge, MA: MIT Press, 2015).


21 Pharma’s adventures in medical research probably represent the most prominent and numerous connections between industry and the academy. Commercialized science has been of great interest to Science and Technology Studies in recent years, in a variety of contexts. In particular, analysts have explored the ways in which connections to industry are shaping academic cultures and the scientific knowledge they produce. See, e.g. Daniel Lee Kleinman, *Impure Cultures: University Biology and the World of Commerce* (Madison: University of Wisconsin Press, 2003); Grischa Metlay, ‘Reconsidering Renormalization: Stability and Change in 20th-century Views on University Patents’, *Social Studies of Science* 36, no. 4 (2006): 565–597; Sheila Slaughter and Gary Rhoades, *Academic Capitalism and the New Economy: Markets, State, and Higher Education* (Baltimore, MD: Johns Hopkins University Press, 2004).


5. POSSESSION: MAKING AND MANAGING KEY OPINION LEADERS

3 James S. Coleman, Elihu Katz and Herbert Menzel, Medical Innovation: A Diffusion Study (Indianapolis, In: Bobbs-Merrill, 1966).
4 The industry had made use of opinion leaders prior to the 1950s, as shown by, for example, Nicolas Rasmussen, ‘The Drug Industry and Clinical Research in Interwar America: Three ‘Types of Physician Collaborator’, Bulletin of the History of Medicine 79 (2005): 50–80. However, Katz and colleagues provided tools for thinking about how to use opinion leaders more systematically. An early effort at the concerted and systematic use of opinion leaders by the company Merck Sharp & Dohme, which may owe something to the Pfizer study, is discussed in Jeremy A. Greene, ‘Releasing the Flood Waters: Diuril and the Reshaping of Hypertension’, in Sergio Sismondo and Jeremy Greene, eds, The Pharmaceutical Studies Reader (Oxford: Wiley-Blackwell, 2015), 51–69.
11 Wave Healthcare 2011
12 KnowledgePoint360, Promotional brochure, 2010.
It is interesting that in other contexts face-to-face communication is much more reliable than written texts at transmitting technical information. In the cases analysed in Science and Technology Studies, the reason for this is the transfer of tacit knowledge, rather than the modelling of behaviour. See, e.g. H.M. Collins, *Changing Order: Replication and Induction in Scientific Practice*, 2nd edn (Chicago: University of Chicago Press, 1990).


Thought Leader Select, Promotional brochure, 2010. See also Thought Leader Select, ‘Our Services’ <http://www.thoughtleaderselect.com/services/> [accessed 4 February 2018].

Lnx pharma, ‘We Identify Truly Important Key Opinion Leaders and Undiscovered Connections’ <http://lnxpharma.com/products/key-opinion-leaders/> [accessed 31 March 2011].

This was in a personal communication. The joking tone of the statement shouldn’t be read as reducing its seriousness.


Quoted in Marcia Angell, The Truth About the Drug Companies: How They Deceive Us and What to Do About It (New York: Random House, 2005), 139.


We could read this claim in terms of an Actor-Network Theory account. See Bruno Latour, Science in Action: How to Follow Scientists and Engineers through Society (Cambridge, MA: Harvard University Press, 1987).

The term ‘key opinion leader’ (‘KOL’) remains the pharmaceutical industry’s most commonly used term to describe influential doctors, preferred in 62% of companies, followed by ‘thought leader’ in 14%. Cision PR Newswire, ‘Global Survey Reveals “Key Opinion Leader” (KOL) is the Most Commonly Used Term by Pharmaceutical
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41 John Virapen, Side Effects: Death – Confessions of a Pharma-Insider (College Station, TX: virtualbookworm.com, 2010), 47.

42 Watermeadow Medical <http://www.watermeadowmedical.com/> [accessed 3 March 2009].

43 We might see a rough parallel to the supposed ‘hostile worlds’ of commerce and intimacy that, for example, Viviana Z. Zelizer describes in ‘The Purchase of Intimacy’, Law & Social Inquiry 25, no. 3 (2000): 817–848.

44 For a fuller account of these interviews, see Sergio Sismondo and Zdenka Chloubova, “You’re Not Just a Paid Monkey Reading Slides”: How Key Opinion Leaders Explain and Justify Their Work, BioSocieties 11, no. 2 (2016): 199–219.


48 A number of governments are in the process of regulating payments to physicians, which tends to lower payments to the level of ‘fair market value’. Fair market value is a constant topic of discussion at industry conferences devoted to KOLs, and there are entire industry reports devoted to the topic. See, e.g., Cutting Edge Information ‘KOL fair-market value and aggregate spend’ <http://www.cuttingedgeinfo.com/thought-leader-fmv/> [accessed 3 October 2013]. The topic is important not because companies want to pay less, but because they want to avoid legally dubious payments that might be seen as inappropriate influence or even bribes.


51 Besides Merton’s ‘self-fulfilling prophecy’, there are a number of other recent accounts of this kind of ‘performativity’ of models. At issue are such things as ‘looping

6. DRAINING AND CONSTRAINING AGENCY

1 Jamie Reidy, *Hard Sell: The Evolution of a Viagra Salesman* (Kansas City, MO: Andrews McMeel Publishing, 2005), 69. A number of former pharmaceutical sales reps have written books in a roughly confessional genre. Reidy’s is the most cheerful, because he is trying to tell a story of himself as a likeable slacker who happened to land a golden opportunity. Others in the genre tend to be more angry, about either their authors’ own mistreatment at the hands of pharma or about the misdeeds being done to patients, or both.


9 A number of studies have shown that samples affect prescriptions, and tend to encourage the use of more expensive drugs. See, e.g. Richard F. Adair and Leah R. Holmgren, ‘Do Drug Samples Influence Resident Prescribing Behavior? A Randomized Trial’, *The American Journal of Medicine* 118, no. 8 (2005): 881–884.


Anthropologist Kalman Applbaum also attended an industry conference focused on patient adherence, very similar to the ones on which I report here. His observations are very similar. Kalman Applbaum, ‘“Consumers are Patients!” Shared Decision-making and Treatment Non-compliance as a Business Opportunity’, *Transcultural Psychiatry* 46, no. 1: 107–130.


39 The speaker’s slide indicates that he is here quoting Stanford University health economist Alan Garber.

7. SIRENS OF HOPE, TROLLS OF FURY AND OTHER VOCAL CREATURES


For example, in the midst of a public outcry over steep drug price hikes, the Alliance for Patient Access wrote a blog post on the need for a 'comprehensive dialogue', especially focused on how insurers should cover full costs of drugs: Amanda Conschafter, ‘Rx Cost Debate Overlooks Patient Access Issues’, *Institute for Patient Access*, 3 November 2015 <http://allianceforpatientaccess.org/rx-cost-debate-overlooks-patient-access-issues/>. When discussions at a United Nations panel on access to medications turned to the exorbitant prices allowed by patents, the Alliance wrote a blog post on how patents make access possible: ‘Rx Pricing, Patents & Patient Access’, *Institute for Patient Access* <http://allianceforpatientaccess.org/rx-pricing-patents-patient-access/> [accessed 24 May 2018].

Global Colon Cancer Association (and others), Letter to Secretary of State John F. Kerry, 6 September 2016 <http://docs.wixstatic.com/ugd/658604e96b104b6d4f0beaf243554d6f354.pdf>.

For example, see the organization Patients for Affordable Drugs <https://www.patientsforaffordabledrugs.org/> [accessed 4 February 2018] which sees the problem of drug pricing as created primarily by the pharmaceutical industry.


This story was brought to my attention when I was contacted by Kelly Crowe of CBC News, asking if I would be interviewed for it. The quotes by Jones and the CGI Group contact are taken from Kelly Crowe, ‘Ads Disguised as News: A Drug Company’s Stealth Marketing Campaign Exposed’, *CBC News*, 5 October 2016 <http://www.cbc.ca/news/health/vaginal-atrophy-analysis-1.3786547>.

**Conclusion: The Haunted Pharmakon**


3 The phrase ‘moral microclimates’ is Emily Martin’s. For Martin, these moral microclimates operate as spaces from which pharmaceutical employees are able to actively engage in defining the meaning of their own work. See Emily Martin, ‘Pharmaceutical Virtue’, *Culture, Medicine and Psychiatry* 30, no. 2 (2006): 157–174. Our interviews with KOLs, and the justificatory schemes they use, are presented in more detail in Sergio Sismondo and Zdenka Chloubova, ‘“You’re Not Just a Paid Monkey Reading Slides”: How Key Opinion Leaders Explain and Justify Their Work’, *BioSocieties* 11, no. 2 (2016): 199–219.

4 As I mentioned before, doctors who see sales reps frequently are more confident of their ability to remain independent than are those who avoid seeing them. Brian Hodges, ‘Interactions with the Pharmaceutical Industry: Experiences and Attitudes of Psychiatry Residents, Interns and Clerks’, *Canadian Medical Association Journal* 153, no. 5 (1995): 553–559.


7 The phrase stems from the US Supreme Court justice Louis Brandeis, who wrote that ‘[s]unlight is said to be the best of disinfectants; electric light the most efficient policeman.’ See Louis D. Brandeis, *Other People’s Money – And How Bankers Use It* (New York: F.A. Stokes, 1914).


10 I owe this point to Shai Mulinari, who is studying transparency as applied to pharma in a number of European countries.


For some excellent overviews of conflicts of interest between the pharmaceutical industry and medicine, see Joel Lexchin, Doctors in Denial: Why Big Pharma and the Canadian Medical Profession Are Too Close for Comfort (Toronto: James Lorimer, 2017); Marc Rodwin, Conflicts of Interest and the Future of Medicine: The United States, France and Japan (Oxford: Oxford University Press, 2011).


A version of this proposal was put forward by Stan Finkelstein and Peter Temin to address another problem: drug pricing. See Stan Finkelstein and Peter Temin, Reasonable Rx: Solving the Drug Price Crisis (Upper Saddle River, NJ: FT Press, 2008).


For example, Marcia Angell, The Truth About the Drug Companies: How They Deceive Us and What to Do About It (New York: Random House, 2005).