Comments from Charles Piller regarding attacks on *Doctored* April 2025

Doctored describes work by a small team of unpaid forensic image experts, who uncovered hundreds of problematic – or fraudulent – papers from dozens of Alzheimer's investigators. Those papers have been cited in the scientific literature about 80,000 times. The apparently doctored studies also have been cited in active patents nearly 500 times. The investigation exposed strong evidence of misconduct by numerous established investigators, including undeniable leaders of the field, and had direct implications for multiple clinical trial programs.

The book also describes how the influence of powerful figures in the field who support the supremacy of the amyloid hypothesis have influenced many scientists to adjust their own ideas that might run contrary to it. The book does *not* argue, as some of its critics have asserted, that amyloid proteins have no role in Alzheimer's and should not be studied.

As I wrote in a recent *New York Times* essay: "Even many of the most hardened skeptics of the hypothesis believe that amyloids have some association with the disease But … The entrenchment of the amyloid hypothesis has fostered a kind of groupthink where grants, corporate riches, career advancement and professional reputations often depend on a central idea largely accepted by institutional authorities on faith. It's unsurprising, then, that most of the fraudulent or questionable papers uncovered during my reporting have involved aspects of the amyloid hypothesis. It's easier to publish dubious science that aligns with conventional wisdom."

People might disagree on the impact of apparent and actual fraud on the field, but clearly the problem is large. A broader, deeper look, beyond what was feasible to do for my book, would uncover further problems. However, I do not argue that all or most research in Alzheimer's disease is based on misconduct. To the contrary, I have often said, in the book and in interviews, that I view most scientists in the field as honest and deeply committed to ethical research.

I also believe that science self-corrects in the long run, as I write in the book. For example, Matthew Schrag, a key source for the book, is quoted as saying: "You can cheat to get a paper. You can cheat to get a degree. You can cheat to get a grant. You can't cheat to cure a disease. Biology doesn't care."

But that self-corrective process can take years or even decades, and often fails to prevent misconduct from skewing thinking in the field, wasting precious funding, and even exploiting or harming patients, as the book shows, supported by comments from leading scientists. And too often, self-correction depends on whistleblowers who take a stand for integrity at serious personal risk.

A few critics say some people have declined to participate in clinical trials or to take anti-amyloid drugs as a therapy after reading my work. People are perfectly capable of assessing the risk-benefit ratio of experimental drugs if provided with complete and credible information. My book describes those risks and benefits regarding anti-amyloid antibody drugs, as my prior reporting in *Science* did. Of course, I stand by the reporting in the articles and in the book, which is supported by information from the clinical trials, other scientific writings, and the views of noted Alzheimer's experts.

Concerns about the drugs' risk-benefit ratios are mainstream. For example the European Medicines Agency recently advised against the marketing of one of the drugs, Kisunla, for its relatively unfavorable profile, and Australian regulators did likewise for another, Leqembi. Advocates of the drugs portray that ratio more favorably. If their ideas were as indisputable as they say, a book by a journalist should not provide what they seem to regard as a formidable challenge.

Some boosters of those very costly anti-amyloid antibody drugs who have criticized my book fail to note that these have not come close to blockbuster expectations of "breakthrough" medicines. To blame the skepticism on my book ignores the market realities they face, that the risks of the drugs can be high, and their benefits modest at best – so modest that many neurologists and neuroscientists say they might be imperceptible to patients and loved ones.

The drugs don't arrest or reverse the cognitive symptoms of the disease. I'm sure that many doctors properly try to help patients weigh the known risks of the drugs – including brain swelling and bleeding that infrequently cause death, and brain atrophy that occurs more rapidly than atrophy caused by the disease itself – against their possible benefits.

I don't question genuine beliefs held by those who disagree with what I have written, but many critics have professional and financial conflicts of interest. Those are investigators whose careers have been based on defining, exploring, and attempting to validate aspects of the amyloid hypothesis. Many have been and currently are deeply dependent on anti-amyloid drug makers or advocacy groups for research funding, and/or have taken large fees for consulting with those companies or groups.

Doctored cites serious deficiencies in the way funders, regulators, universities, and scholarly journals have addressed the problem of image doctoring and misconduct generally in Alzheimer's disease and more broadly. I believe those institutional authorities have a responsibility to do much better for the sake of improving the scientific record and speeding the development of effective treatments. Patients, taxpayers, scientists, and doctors all have the right to demand that those authorities and gatekeepers of knowledge provide better stewardship of the scientific enterprise.

A few scientists have criticized my book – which was completed last fall, long before President Trump took office – because some of my ideas have been borrowed by high officials in the Trump administration for their own political purposes. Journalists have no control over what use or misuse others might make of their reporting. I strongly object to the Trump administration's slash-and-burn approach to American science, especially the unilateral cuts to funding and staff at NIH, FDA, CDC, and universities. Anyone who loves science and respects the vital role of scientific research for humanity – as I do – should deplore such destructive actions.

I suspect that understandable fear about the future of science in today's political climate has influenced some critics to call my book "misinformation" and "anti-science," and imply that I'm a conspiracy theorist. A few prominent Alzheimer's scientists have even suggested that open exploration of fraud and research integrity is more of a threat to Alzheimer's research than the fraud itself. In the current media environment, such complacency and condescension seems particularly misguided within an argument imploring the public to trust those self-described "true experts."

For all those reasons, I advise anyone interested in these matters to read *Doctored*, and consult its detailed source notes, before accepting such criticisms at face value.

I'm gratified that the vast majority of my feedback from the scientific community, physicians, and patients and their loved ones has been overwhelmingly positive and appreciative. This has also been reflected in the many reviews in the popular and scientific media, and in other coverage, which you can find links to on my website.