## Asking the dumb questions

PETER MCINTYRE

It took ten years of immersion in the world of cancer research to produce the book that won Clifton Leaf a Best Cancer Reporter Lifetime Achievement award. But it started from a simple question: how do claims about winning the war on cancer square with a failure to cut death rates?

hen Clifton Leaf was working as the Wall Street editor at *Fortune* magazine in the early years of the new millennium, it seemed there was no shortage of scandals to cover – from the accounting crimes of auditor Arthur Andersen to the house of cards that was Enron. At their heart was a fundamental driver, Leaf said: "Greed. Many of the central figures in these Wall Street scandals were rich already – it was incredible to see that some would do anything to get even richer."

However, when it comes to the world of cancer research and treatment, where Leaf has also spent a decade saying that the numbers do not add up, he has nothing but kind words about the people.

"When I got into the cancer enterprise, I got to talk to lots of people at the beginning, and that now runs into thousands. I did not meet anybody who



**Clifton Leaf** 

would not have given their right arm to have cured cancer. There was a different passion and drive and a willingness to engage in the problem that I had never experienced." This might sound odd, given the storm Leaf stirred up about the failures of cancer research and treatment, and the way the 'war on cancer' has been mishandled. But he has always been clear about the difference between the policies and the people, and he learnt about life's many contradictions early on. At the age of 15 he was diagnosed with advanced Hodgkin disease and experienced a combination of drugs and radiation therapy that almost killed him even as it saved his life.

Now Deputy Editor of *Fortune*, Leaf recently went to Switzerland to receive a Best Cancer Reporter Award for Lifetime Achievement from the European School of Oncology. His work stretches from his 2004 cover story, 'Why we're losing the war on cancer – and how to win it' to his 2013 bestselling book that elaborated on reasons for this failure, *The Truth in Small Doses*. Among

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many articles in between was his 2013 cover story for the Sunday Review section of the *New York Times*, 'Do clinical trials work?'

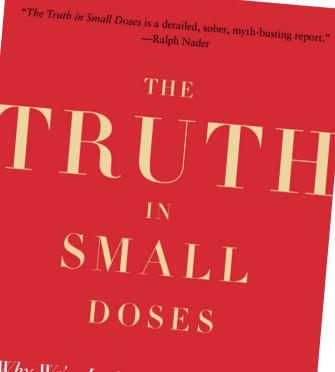
Over this decade Leaf has succeeded in reframing the story of cancer. The usual narrative has science relentlessly unveiling the secrets of this terrible scourge and developing ever more brilliant drugs to treat it. Indeed, when he first came to the topic this is what Leaf believed. "My bias was that of the average American. You only know what you read in the paper. I thought we were getting one breakthrough after another."

He came with no science background, having slept through most of the biology course at high school and never having written about medical science. However, this was a time when Glivec, Avastin and Erbitux were being hailed as wonder drugs, and there was immense interest in the field from

investors. As a business reporter he could not ignore it.

"I started thinking about the cancer problem as if it were a corporate enterprise. Instead of a profit and loss statement or a balance sheet, I asked, 'What are the metrics that show how the cancer enterprise is doing? How many people were getting the disease each year, how many were dying and how much were we spending?' The answers were neither clear-cut nor encouraging. Those numbers seemed to be going the way of Enron, and I started to wonder if things were as they should be."

His main conclusion was that you



Why We're Losing the War on Cancer —and How to Win It

**Clifton Leaf** 

A conversation starter. Leaf wants his award-winning book to stimulate a more critical discussion about how the cancer research enterprise is managed

cannot claim a success so long as the cancer burden – the overall number of people developing cancer and dying from the disease – continues to rise. The aging population is a critical factor, Leaf acknowledges. But he says we have to address these population demographics head-on, work to lower the number of people getting cancer and focus on pre-empting the disease process earlier in its progression.

In the US alone, about 230,000 women will be diagnosed with invasive breast cancer this year and another 60,000 with *in situ* disease. "My question is, how is that winning? We can't say we have a victory because we say we have slightly reduced the age-adjusted death rate.

"Even when they make it through five or six years of treatment many of them still die. They are counted as successes because they exceeded the five-year survival rate but are no longer with us. Since I began this enquiry ten years ago I have collected many people in my life who reached out to me or I met at conferences. I have lost many of them along the way. You hear about it in night-time calls, e-mails or text messages - it is brutal.

"I measure progress by whether the burden of cancer is being reduced or not. I measure the burden by the number of people going through this gruelling awful process."

## The dumb questions

The last time *Cancer World* wrote about Clifton Leaf (2007) the headline described him as "asking the difficult questions". He demurs. "I think they are the dumb questions – the really straightforward stuff. Like: at what point does making sure that we have fewer women getting breast cancer become as paramount as treating it?"

His book focuses on the mismatch between the brilliance of the scientists and what he sees as the minimalist ambitions of the clinical trials enterprise - citing Irv Krakoff on research "aiming to find significant answers to insignificant questions." He describes how the US war chest for cancer goes to the same institutions year after year, how researchers spend 50% of their time applying for grants and filling

in paperwork, and how young researchers with bright ideas spend an increasing amount of time doing non-inventive experimental work in large laboratories, gathering an endless amount of 'preliminary data', while their ambitions and inspiration wither.

He details the lack of progress on finding cancer markers for early diagnosis and the minimal sums spent on prevention. Meanwhile, as the death toll continues to rise, every step forward is hailed as a breakthrough, especially on the business pages. "Company stocks go soaring on merely the wisp of good news from clinical trials and they fall precipitously when something goes awry."

Part of the problems is the filtration process. "Companies present their data in lofty conferences and the world gathers with bated breath as if a new pope was being chosen. The low expectations that set the context for clinical trials help shape these dramatic responses. If you are used to the fact that nothing works, and something comes along that improves survival by two months,



there are hosannas and angels singing and the stock goes through the stratosphere."

There is much more of this in the book, which is fast paced as you might expect from a journalist. He focuses on people who challenge the status quo, and are often marginalised until they turn out to be right.

Undoubtedly his work has had an impact, but Leaf does not consider himself an expert. "I would definitely say expert is the wrong word. I would say I am a hard-working remedial student, well-studied in the way that a remedial student needs to at least be able to communicate with the people I am having a conversation with."

This is one reason that his book includes 81 pages of (often chatty) endnotes and almost 100 pages of references at the back. "I made a real effort to make the sources and references as comprehensive and readable as I could, and used the top-tier journals. I was holding up a mirror and saying, 'this is what you in the medical and scientific community have discovered through your hard work and training'. This is not me saying this. All I am is an Opening salvo. Leaf presented his first challenge to the 'official narrative' of a steady stream of breakthroughs in this cover story for *Fortune* magazine, published in 2004

aggregator or scribe."

He admits to being a good polemicist. "But what I really wanted to be was a story teller and to

have a sense of a shared conversation. I did not think people would listen closely to a long argument any more than they would listen to a bore at a cocktail party."

His writing is not just about what has gone wrong. He says that finding good solutions requires good management and good engineering. As deputy editor of *Fortune* magazine, he is responsible for seeing the print edition to press and coordinating the work to gel at the right time. "We get close to missing the deadline every issue but never do. We make it time after time only because it is managed." He says that levels of creativity and innovation and new ways of thinking about story telling are encouraged, not discouraged, by the process.

However, he accepts that many scientists fear it. "There is this idea that if you are being managed there is no way you can have independent thought or creativity or innovation."

## Ask Google

He suggests that cancer researchers learn from the business world. "If you look at Apple or Intel or Google or Facebook, so many explosive ideas are possible because of brilliant management. The aim of management is to free up the creative idea and to shape and facilitate innovation. What is happening in the cancer world, frankly, is also management – researchers and clinicians are being micromanaged and mismanaged to exhaustion. Sometimes all 'good management' entails is putting an end to the micromanaged systems that don't work and shaking up a culture of deadly caution."

He calls for smaller but longer term grants that free the most creative scientists to get on with their research and a better 'systems approach' to organise trials that we can learn from more quickly and reduce 'me too'-ism. He cites the hopeless coordination in the global hunt for can-

cer biomarkers and contrasts it with the best business approach. Maybe progress can be made by learning from the likes of Google, a company that encourages hundreds of pieces of innovation in its labs and then throws mass resources at developing those that look most promising.

"There has to be some process to choose what is worth pursuing and what is not and how much effort to put in and where the resources come from and that needs focus. I think of engineering as bridge building, making sure that people and materials are there at the right time."

Leaf does see some progress over the decade he has been beating this drum. There is greater recognition that young scientists need to be given more backing at a time when they are most creative. But he sees little progress in the way that the big grants are doled out in the USA – a bureaucratic and riskaverse process that he believes stifles innovation and enforces conformity.

One big area of change has been the



emergence of a new breed of patient advocates. "They are not just here to raise money and wear pink ribbons and march, but to help solve problems. That means helping to recruit for and shape clinical trials; making sure that the questions being asked are the important ones; that the right markers are being used to stratify the right patients; that trials are appropriately controlled. They are engaging more with institutions."

Until the number of people developing cancer and dying from it starts to fall, Leaf does not feel that anyone can claim to be winning a war against cancer. So will he continue to be an active voice?

Leaf has a demanding job and a family for whom he wants to be present and involved. He does not have the time for research and writing in the way that he did, but does not intend to disappear. He is a regular keynote speaker at conferences and is often invited to sit on panels and boards, including three times on the President's Cancer Panel Meeting. "I don't think you can open up your mouth as loudly and widely as I did and then just walk away. It is kind of cowardly to throw stones and not wait for everyone to come and confront you." In fact he has become friends with many people in cancer research who disagree with him and he sees it as a healthy sign that they seem to enjoy being challenged (as he does).

"I have been lucky enough to have a platform, first with *Fortune* magazine and then through the brilliance of the cancer community at large, then the book with Simon & Schuster. Because I have had that benefit I am going to stick around for a while and see if I can be of help in a collaborative way of keeping the conversation going. I think that is important."

When interviewed for *Cancer World* in 2007 Leaf observed that many of his critics were predicting that the big cancer breakthroughs would come by 2015. A quick look at the calendar would suggest that, unlike his magazine, his critics have missed a deadline.