Book Review

Anticancer: A New Way of Life, 2nd edition. By David Servan-Schreiber. 2009. Viking Penguin, London. ISBN 978-0-670-02164-2.

While searching for effective ways to support my partner in his recovery from prostate cancer, I read the above book. What an eye-opener it was! Written by a high-flying medic whose research project almost 20 years ago caused his cancerous brain tumor to serendipitously show up at a very early stage, the book contains some very significant information for those involved in food production and farming, whether at policy, research, academic, administration or production levels.

The author appears to remain rooted in the conventional scientific mind-set, i.e., 'if it's not in a refereed journal it's not scientific' medical approach to cancer. However, I suspect that his position may be protective coloration as he still practices clinical psychiatry, and conventional medicine appears not to take too kindly, particularly in USA, to challenges to its supremacy or its worldview. And so he synthesized his gleanings from reviews of the scientific literature ranging from agriculture, oncology, psychoneuroimmunology (PNI), food and nutrition, molecular biology and ecology, along with his own clinical experience and his personal experience as a cancer survivor, into this thoroughly engaging and informative book. In his own words, he tells 'the story of how he changed from a scientist-researcher, completely ignorant of the body's natural defenses, to a physician who relies above all on these natural mechanisms'.

The author presents an overview of knowledge of the mechanisms of cancer and how it has given rise to his view of four new approaches to the disease as follows:

- 1. Guarding the body against imbalances in our environment that have developed since 1940 and which promote the current cancer epidemic.
- 2. Adjusting the diet so as to cut back on cancer promoters and include the greatest number of phytochemical components that actively fight tumors.
- 3. Understanding and healing the psychological wounds that feed biological mechanisms at work in cancer.
- 4. Creating a relationship with our bodies that stimulates the immune system and reduces the inflammation that makes tumors grow.

Considering that food and its production are the focus of this journal, this review considers some of the implications of 1, 2 and 4 above. 1940 as a watershed year matches seismic changes in the industrialized world: synthetic chemical production, new methods of farming involving synthetic fertilizers, insecticides and herbicides, new farming practices

that affected soil and biodiversity and new methods of food processing. New varieties of food and feed plants were developed with more attention paid to increasing production through matching agricultural tools and practices rather than focusing on nutritional needs of animals in the human food chain or of humans themselves. Some of the impacts are as simple as polluting the soil and water with carcinogenic products, some involve polluting food itself and others involve contaminating farm workers and negatively affecting their health and the health of their offspring through teratogenic effects. But groundwater pollution is never a simple matter, especially when it may end up bioaccumulating in the body fat of those animals at the top of the food chain-think polar bear and human, for example. The author succinctly joins the dots regarding the price we are paying for decades of environmental pollution-much of which is farming and food related-when he quotes Michael Lerner saying 'we can't live healthy on a sick planet'. Lerner is a former political scientist turned environmentally aware cancer patient support programme organizer of the world famous Commonwealth Institute, someone with in-depth and joined-up knowledge of ecological causes and effects in industrialized countries.

Besides the synthetic chemical toxins in our foodproducing and food-processing systems, the shift involves the typical developed country diet with its pathological ratio of omega-6s to omega-3s, a ratio now scientifically accepted as contributing to inflammatory processes in the body and to specific phases in the cancer cycle. This shift was brought about by government policy actions, engineered in response to food interest lobbying, orchestrated by the Madison Avenue factor and supported by industryled and -funded research.

But it is not just agriculture that comes under scrutiny in this book. Cancer research in general, with its many warfare metaphors, is also subjected to Servan-Schreiber's challenging gaze. And it appears that the 'culture' of scientific medicine can greatly limit the capacity to 'join up the dots' between specialities. Many experiments tend to look at one agent at a time, an approach that ignores the biological reality of cumulative or symbiotic effects of more than one intervention. The rationale for his criticism equally applies to much of the current research in agriculture: single-factor studies are often valueless when organisms and/or ecology are involved.

In supporting the case for the role of the reader's awareness in choosing a lifestyle that supports good health, the author neatly shows the interconnections that are at the core of ecology. He says 'When we demand food from animals raised with respect for their biological needs, we gradually set off a chain reaction whose effects will be magnified down the line ... impacts on rivers and streams. [Through this transformation] we will be contributing to reducing their pollution (with pesticides from cornfields and waste from feedlot-raised animals). Our choice will have an impact on the equilibrium and renewal of land left fallow for the sake of regeneration. It will even have an effect on animals that give us their milk, eggs, and flesh, since they will be in better health when they are fed naturally. Globally, our awareness will have repercussions that extend to our planet's equilibrium ... consuming fewer animal products and demanding healthier food for animals contribute to considerably reducing the greenhouse effect ... '. In the words of Albert Howard, father of organic farming in the UK, 'Healthy soil gives healthy plants, healthy animals and healthy people'. Interestingly, Servan-Schreiber quotes Chief Seattle, that significant repository of traditional indigenous wisdom, who exhorted the white settlers to teach their children 'that the earth is our mother. Whatever befalls the earth befalls the sons of the earth. If man spits upon the ground, they spit upon themselves' and so the Western conventional medic who has awakened to the existence of man's innate healing capabilities, now recognizes that 'all things are connected' in a most unmechanistic way!

I found some details relevant to food and farming deeply disturbing. One example is the statement that researchers have demonstrated that the change in the character of milk since 1950 is responsible for infant obesity. A new omega-6 imbalance in the very nature of milk acts on the growth of both adipose tissue and cancer cells. Even more shocking are the implications of the effect of recombinant bovine growth hormone (rBGH), apart from its genetically engineered nature, as an insulin growth factor (IGF) stimulant. IGF is a major player in stimulation of fatty cells and accelerates growth in malignant tumors. Aggressive use of legal processes by the manufacturers-nothing new for Monsantoof rBGH will not allow suppliers of non-rBGH milk to label their product as rBGH-free in some US states, a position that echoes the scandal whereby medical and scientific experts for years declared bottle feeding was just as good as breastfeeding and in doing so affected policy decisions. Meanwhile, the IGF created by rBGH ends up in the human food chain; it is not destroyed by pasteurization and the effects of rBGH on humans are not known.

In what is obviously a cry from the author's heart, he remarks on the hidden 'questionable substances introduced in our food since 1940. But these toxic substances are odorless, colourless, and tasteless. Are they 'acceptable' simply because they are hidden? Is this a concern only for those of us already affected once by cancer?' These remarks were made specifically about pesticides, about which there is significant evidence of much chicanery, and corruption—both institutional and corporate—and double talk regarding the state of the pesticide regulatory and control systems worldwide.

The connection between ill-health and industrially produced food is not as firmly established as the link between cancer and tobacco. However, this situation, based on the

existing scientific literature, does not take into account how some of this body of information has been corrupted by bad practice (think ghost writers paid by manufacturers of the product under scrutiny), bad processes (think inappropriateness of single factor issues when testing organisms) and the sheer inertia of the prevailing worldview (think 10-year delay in accepting the role of Helicobacter in stomach ulcers). And so he spells out the connections as follows: 'As with tobacco, there are very powerful economic reasons for not wanting to know more. Many politicians believe that pesticides promote agricultural productivity, although there is little hard data to support this belief. Some argue that relying on conventional agricultural chemicals protects the economic activity and jobs in farming areas. It also preserves the interests of the chemical industry. Any changes in farming policy to promote practices that respect nature and human health have obvious immediate downsides ... as with tobacco, some of the economic benefits stemming from this change, such as a notable reduction in health-care costs, will only be perceived in the long term. But others may be more immediate such as improvements in water quality and worker health and safety.'

It is worth noting that, since the tobacco sector has come under pressure because of a demand for accountability for its effects, many tobacco companies have moved into the food business and undoubtedly some of their less desirable practices have been transplanted to food business practice. And as for acceptance of inconvenient information, the author succinctly pulls in Al Gore's use of Upton Sinclair's famous quotation 'it's difficult to get someone to understand something when his salary depends upon his not understanding it'. Such a neat way to suggest why inconvenient information may be so often ignored!

It is also worth noting that since the author's first language is French he has ready access to science documentation in the French language, which may not be available in English. From the book's references some significant information sources appear only in French, suggesting that English translations are not available. Some of the more pointed dichotomies in Servan-Schreiber's comments could be Gallic flourishes added to the protective coloration *vis-à-vis* conventional medicine which he appears to take on at times.

And as for my aforementioned partner with the cancer, while he has farmed organically for over 30 years, he reckons that his exposure to synthetic chemicals on the family farm and vineyards in his pre-adult years may be linked to his disease. Indeed, it was an organophosphateinduced serious illness in a farmer friend that inspired him to switch to organic farming in the first place.

Anticancer is indeed a very readable, well-researched and perfectly referenced book with admirable breadth and depth. And its food implications, only a few of which are referred to here, should be incorporated into the thinking of all involved in food and farming matters.

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