Mind and heart come together in this remarkable book, making it a must read. As a person living with cancer I found it impossible to put down. Servan-Schreiber, a physician and neuroscience researcher, co-founder of the Center for Integrative Medicine at the University of Pittsburgh was diagnosed with brain cancer when he was 31 years old, received treatment and went into remission. Eventually though, he had a recurrence. After the recurrence he started to look into natural approaches to prevent or help treat cancer. The book is both a memoir and a riveting journey through recent developments in the ideas about cancer. We learn about his personal story and how he slowly transformed himself from a laboratory scientist mainly interested in writing papers into a proponent of an integrative approach to cancer treatment who is keenly interested in human beings. He does a marvelous job of connecting the dots in widely dispersed areas of knowledge—all relevant to his interest in cancer and our natural defense mechanisms.

Key ideas presented in this book are:
- Everybody has cancer cells in their bodies, but not everybody develops cancer;
- 2) We must include the concept of "terrain", our whole being, in any discussion about cancer;
- 3) At this point in history, we cannot attempt to deal with cancer without the tools of conventional Western medicine.

Based on these ideas, he presents an updated view on cancer growth and how to mobilize our vital mechanisms and use the resources of the body to defend itself.

Chapter 4, "Cancer Weaknesses," presents some of the current thinking about the immune system, inflammation, and angiogenesis. He discusses "natural killer" cells (NK cells), white blood cells that attack cancer cells, and activate their self-destruction. The more active NK cells are the more they can stop tumor's growth. It follows that we must do all we can to activate them through a healthy diet, clean environment, physical exercise, and stress reducing activities.

The discussion on inflammation is clear and concise. Inflammation is the normal process that our bodies use to repair tissues after a wound. But, as it turns out, inflammation can be diverted to promote cancer growth, as if cancer were the outcome of a wound repair mechanism gone wrong. Cancer cells need to produce inflammation to sustain their growth and block the natural
process of apoptosis—the suicide of cells. As Servan-Schreiber aptly puts it "Thanks to the inflammation they create they infiltrate neighboring tissues, slip into the bloodstream, migrate, and establish remote colonies called metastases" (page 37). Dietary imbalance in the ratio of essential fatty acids has led us to an incredibly higher consumption of omega-6s oils compared to omega-3s, which increases inflammation.

Judah Folkman was a surgeon whose great contribution to cancer research was to highlight angiogenesis, the fact that tumors need new capillaries to feed themselves and expand. Tumors hijack blood vessels by producing a chemical substance that attracts them and stimulates them to grow new branches. Though it took quite a while for Folkman's ideas to be accepted, how to block angiogenesis is now one of the central areas of cancer research. There are some foods, spices, and herbs that reduce angiogenesis and diminishing inflammation will also prevent new vessel growth.

Servan-Schreiber gives very practical suggestions about these three areas of knowledge, so that we can stimulate our defense mechanisms, while receiving conventional treatment. Just this chapter is worth the price of the book!

In discussing the contribution of the environment to the cancer epidemic, Servan-Schreiber writes about the typical Western diet, the changes in farming and raising animals during the last century, and the chemical contamination of our planet since the forties. Sugar and white flours dominate our diet and raise rapidly the level of glucose, Insulin and IGF-1 (Insulin Growth Factor 1, a powerful growth hormone) are released to allow glucose to enter cells. Insulin and IGF1 also promote inflammation. He argues convincingly that we should eliminate sugar and white flour from our diet.

There is a detailed section about anticancer foods in daily practice. Servan-Schreiber has been influenced by the work of Richard Béliveau, at the University of Montreal. Béliveau, a cancer biologist working in medical pharmacology for twenty years, shifted to working on diet, through a series of interesting circumstances that I wouldn’t tell you about here. Read the book! It is a fascinating story and it has led to the concept of anticancer foods, like phytochemicals, components of some vegetables/fruits, which have antimicrobial, antifungal, insecticidal, and antioxidants properties. They also act as detoxifiers of the body. There is also a wonderful description of the research on traditional spices, like turmeric, by Professor Bharat Aggarwal at the M.D. Anderson Cancer Research Center. A key substance called nuclear factor-kappa B (NF-kappaB) is secreted by tumor cells; it promotes cancer cell growth and spread. The whole pharmaceutical industry is trying to find out drugs that inhibit NF-kappaB. Servan-Schreiber points out that two substances that do so are available easily, catechins, found in green tea and resveratrol, found in red wine. And as it happens, turmeric is also an antagonist to NF-kappaB. He also states that since the pharmaceutical industry and the food industry are not interested in any changes we badly need "... public institutions and foundations to finance human studies on the anticancer benefits of food" (page 115). Indeed!

The book emphasizes the importance of a healthy mindset that will stimulate the will to live in cancer patients and the need to find support, to deal with emotions, and to find ways to relieve stress. There is a lot of work going on about the link between psychological factors and the immune system. White blood cells can detect the presence of stress hormones and react according to the levels of these hormones in the bloodstream by releasing inflammatory substances. Natural killer cells can be blocked by stress hormones, and become passive instead of reacting to viruses or cancer cells. Feelings of helplessness can influence directly our immune system. Meditation, yoga, and other practices that develop awareness and
attention to the present moment can help the body's harmonious functioning and in so doing stimulate the life force that keeps us healthy. Our bodies need touch and physical exercise, we can benefit from massage, and we must increase our sense of connection with others that it is so important to give meaning and purpose to our lives. A holistic approach needs to take all the dimensions of living into consideration and Servan-Schreiber pushes us to leave nothing out of the picture and to pay attention to our inner selves so that we can live fully and gracefully.

The book ends by stressing three points: the importance of our "terrain," the effects of awareness, and the synergy of natural forces. This last point is important. The body is a system in equilibrium; each function interacts with all the others. If we just change one of these functions the ‘whole’ is affected.

So, we can start with one thing, diet, or psychological work, or whatever makes sense to us and nourishes the will to live. Awareness in one area will automatically lead to progress in others, and little by little, the equilibrium will shift to greater health and will make changes easier. Finally, he addresses an important point, the worry that some oncologists have "not to give false hope." He turns this idea around, and points out that "...this comes down to restricting ourselves to a conception of medicine that withholds the power every one of us has to take charge of ourselves. As if we couldn't do anything to protect ourselves actively against cancer—before and after the disease. Encouraging this passivity creates a culture of hopelessness” (page 203).

One reservation that I have about the book is that the discussion about chemical contamination of the environment seems weak in comparison to the depth with which other topics are discussed. This is an area where individually we can do very little. This needs to be addressed at a system level, and in fact it is beginning to happen. For instance, in Massachusetts, the Alliance for a Healthy Tomorrow, a coalition of over 160 organizations, has relentlessly pursued legislation, a bill called Safer Alternatives that will require the use of alternatives in the environment, when feasible, over the use of dangerous chemicals. This year, the Mass Senate voted unanimously in support of this but the House did not get to vote. The law will be introduced again in the 2009 legislative session. Keep an eye on it.

The book has eight pages in color on glossy paper that summarize visually the information about foods, inflammation, contamination in fruits and vegetables, effects of certain foods on specific cancers, detoxification, and an anticancer shopping list. And a list of ten precautions for cell phone use. Very useful!

If you want to take a look at Servan-Schreiber go to:

http://www.youtube.com/watch?v=2lwiQm5QaTs

and watch the video Anticancer, in English. He conveys intelligence and warmth. I highly recommend this book for everybody.

Rita Arditti, is a Geneticist, a Co-founder of New Words Women’s Bookstore and The Women’s Community Cancer Project.

She was born in Argentina in 1934, the daughter of a Jewish family that had emigrated from Turkey. Under Peron’s dictatorship, there were few opportunities for students. She came to America and briefly attended Barnard College in New York City. She went from there to the University of Rome, Italy, where she earned a Ph.D in genetics.
Rita arrived in Cambridge MA in 1966 on a post-doctoral fellowship in genetics and continued her work at Harvard and Brandeis as a research scientist. In the late sixties and early seventies, she became involved with other socially active scientists who formed “Science for the People”, that sought to expose the link between science and politics. After teaching a course in which she combined biology, sociology, and anthropology, relating ideas about contraception to those of reproduction, about mental illness side by side with brain research, she noticed a lack of access to information about women.

As a result, Arditti co-founded “New Words”, a women's bookstore in Cambridge in 1974. Starting in a single room rented from a restaurant on Kirkland St., the store expanded to include an impressive collection of books, talks, and lectures. while providing a space allowing women to educate themselves and to participate in civic dialogue. Recently threatened with closure, “New Words” moved to the YWCA building and sought community funding.

In 1989, after surviving breast cancer, she helped to found the Women's Community Cancer Project that explores research on causes (such as environmental toxins) treatments, and preventative methods available for women.

Her contributions to an Argentinian human rights group in the eighties brought her into contact with the grandmothers of the Plaza de Mayo in Buenos Aires, a group of older women who joined with the mothers protesting the “disappeared” young people. After agreeing to volunteer as a translator for a tour sponsored by Amnesty International, Rita became personally affected by the women's search for their grandchildren who had been born to women seized during the “dirty war” of 1976-1983.

In 1999, she published a book, Searching for Life: The Grandmothers of the Plaza De Mayo and the Disappeared Children of Argentina based on her interviews. She was the recipient of a “Jessie Bernard Wise Women Award” from the Center for Women Policy Studies in Washington, DC. in 1994 and the “Peace and Justice Award” presented by the city of Cambridge, MA. She is an emeritus faculty member of Graduate College, Union Institute and University.

Rita Arditti's bio is found at the Cambridge Women's Heritage Project, City of Cambridge.