

# **SALVESTROLS; NATURE'S DEFENCE AGAINST CANCER**

**As I see it by John Appleton**

This is the title of a book by Brian A Schaefer and it documents a remarkable discovery made by two British Scientists - Gerry Potter PhD and Dan Burke PhD

Until very recently I had not been aware of Salvestrols and I thought I had a pretty good feel for the role plant derived nutrients (Phytonutrients) might have in protecting us from disease. Having read Brian Schaefer's book all I can say is that I knew nothing.



**Heirloom apples are packed full of Salvestrols**

The Salvestrol (Salvia - Latin to save) story begins with the discovery of an enzyme known as CYP1B1. CYP (sip) is short for Cytochrome P450 a system of enzymes that occur throughout nature. Of greatest interest to cancer researchers are the 57 CYP enzymes that exist in humans. CYP enzymes are used by humans to clear natural toxins from their bodies.

What is so remarkable about the discovery of CYP1B1 is that this enzyme is distinguished by its presence in cancer cells and its absence in healthy tissue. Over a period of years Prof Dan Burke and colleagues at University of Aberdeen found CYP1B1 in a broad array of tumours including breast – colon – lung – oesophagus – skin – lymph node – brain and testis with no detectable presence in healthy tissue. Not only did they find the enzyme present in the many types of tumours tested but they found it throughout all stages of cancer from precancerous cells through to primary cancer cells and metastases. “This makes CYP1B1 a truly intrinsic property of cancer cells”.

The question arose – why is this enzyme present in Cancer cells and not in healthy cells? Could CYP1B1 have a specific role to play? It's clear now that CYP1B1 is indeed important - more so than most of us could ever imagine.

Enter Salvestrols which is a name given to a class of plant based natural compounds that are defined more by what they do than by a chemical definition. Salvestrols provide a natural rescue mechanism for the body. Profs Burke and Potter have discovered that Salvestrols are converted (by CYP1B1) in the cancer cell to anticancer agents which can bring about the demise of the cancer cell while not affecting healthy cells. Salvestrols provide their anti-cancer activity through their metabolism by CYP1B1 to anti-cancer agents within the confines of the cancer cell. “This is the central defining feature of Salvestrols”.

Salvestrols are part of the plant's immune system and they are produced to inhibit the action of a fungi or pathogen. They should be found in abundance in many of the plants that we eat – but there is a problem.

It's estimated that we consume today only 10-20% of the Salvestrols that occurred in our diet 100 years ago and even worse with the now widespread use of fungicides pesticides and herbicides, food is being grown which has almost undetectable levels of Salvestrols.

Plants make Salvestrols in response to a fungal attack. These attacks generally occur late in the ripening phase. Pathogens usually attack the skin of the fruit or the roots of the plant. In response to these attacks plants have evolved a defence mechanism and that defence mechanism is Salvestrols. If however anti-fungal sprays are used or if the fruit is picked before its ripe, the plants won't make Salvestrols and this is a huge problem for us. Organic foods have been found to contain levels of Salvestrols up to 30 times higher than in conventionally grown foods so purchasing organic wherever possible is really important.

We have all come across statements asserting that there is a link between diet and cancer. The WHO has a worldwide campaign to increase fruit and vegetable consumption. This all makes good sense to most of us but there is a general lack of information about how these dietary changes should assist us. In the absence of such an explanation these campaigns run the risk of being overlooked.

The Salvestrol story provides that much needed explanation. Brian Shaefer's book is a must read for anyone with an interest in their health. To obtain a copy contact David Vousden [info@salvacare.co.nz](mailto:info@salvacare.co.nz) [www.salvestrol.co.nz](http://www.salvestrol.co.nz)

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