ENGINEERING FOODS TO PREVENT CANCER

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**Research** **aim** **and** **objectives**

After extensive research, we have focused our efforts on examining how processing treatments affects plant material’s ability to prevent cancer development.

**Results** **and** **discussion**

We measured the effects of sugars and high pressure on the plant compound EGCG and found that high pressure helps break the compound down, while the sugars help keep the compound’s structure intact. These results suggest that we cannot assume that not heating the plant compound will ultimately be better than heating. On the other hand, high pressure homogenization increased the total amount of polyphenols in strawberry puree, plant chemicals though to help prevent cancer.

We also found that a t compound mostly found in citrus fruit reacted very strongly with sugars, while another compound found in berries, responded differently.

**Conclusions**

Our results clearly show that by engineering the optimal conditions and processing, the concentrations of stable plant compounds can be conserved. In fact, leaving the plant compounds alone may not lead to their better ability to prevent cancer. Therefore we continue to research in order to clearly identify the parameters that would maintain these compounds at their highest functioning.