**Meeting report on International Horticultural Congress, Brisbane 2014**

Carol Wagstaff received support from the GCRI Trust to support her attendance at the International Horticultural Congress. Since she was a member of the scientific committee for the Fruit and Vegetables for Health Symposium she spent considerable time in these sessions which provided an insight into the role of plants as food and how far we understand the relationship between measurable nutritional content of the crop and the health benefits provided to the end consumer.

Carol’s own presentations were on “Plants And People: Working At The Dietary Interface” which was about our group’s work on lettuce and brassica crops, the genetic/biochemical basis of flavour and how they are metabolised upon consumption. The key message is that fairly subtle genetic differences at the crop level can have a significant impact on the way in which phytonutrients are digested and the types of gut microflora that are able to proliferate. The second presentation was on “The effect of maturity on the composition and taste characteristics of coloured bell peppers (*Capsicum annuum*, L).” This talk elicited much audience interest and the key message is that the different degrees of sweetness detected between green, orange and red peppers are not necessarily down to sugars, but is likely to be due in some cases to the concentration of sweet-tasting amino acids. This finding has a major impact for breeding fruit crops that are primarily selected for sweet taste as it may be possible to achieve the desired flavour profile without increasing sugar levels.

There were numerous talks whose findings added to the body of evidence that fruit and vegetable consumption benefits cardiovascular, cognitive and metabolic health. The symposium joined forces on two occasions: firstly with the Berry Symposium, showcasing research such as the finding that both wild and cultivated berries (bilberry, blackcurrant, lingonberry) are potent inhibitors of inflammatory disease markers, indicating that they may potentially be used for the prevention and/or part of active treatment of an inflammatory disease. Secondly, the symposium combined with the International Congress on Medicinal and Aromatic Plants. One of the most interesting talks presented highlighted positive correlations between the use of medicinal plants during pregnancy of 2445 women and birthing outcomes e.g. a reduction in the use of pharmacological labour pain management, reduced use of epidural and a lower rate of caesarean delivery.

In contrast to FavHealth, the highlights of the other session that Carol was involved with as Chair were focused on the molecular understanding of the abscission processes in plants. This field is really moving forward in terms of understanding the regulation of cell separation in processes such as dehiscence and fruitlet abscission. Transgenic approaches benefit from the use of abscission zone-specific promoters, and when used to drive antisense silencing of KD1 and of TOMATO PROLINE RICH PROTEIN (TPRP-F1) in tomato both pedicel and petiole abscission were strongly inhibited. KD1 has been identified as a transcription factor involved in the regulation compound leaf ontogeny, but the function of TPRP-F1 is not yet known. Sweet cherry fruitlet abscission is regulated by carbohydrate availability. Girdling the branches six weeks after full flower reduced abscission in the variety Lapin, and sugar content in the fruit at harvest was increased in girdled trees.