Hops may help your kidneys!
There seems to be no end to the health related benefits of hops. Japanese researchers now examined whether isohumulones ameliorate renal damage. Rats were fed a special diet containing 0.3% isohumulones for 4 weeks. Renal damage was evaluated histologically and reactive oxygen species and nitric oxide production in the renal cortex was visualized. The results they found suggest that isohumulones may prevent the progression of renal damage caused by hypertension via an anti-oxidative effect.1

How good is an electric tongue in evaluating bitterness?
To accurately determine bitterness intensity is not easy, to accurately determine bitterness in beer is even more difficult due to matrix effects. So these German researchers tested a electric tongue for a more reliable bitterness taste sensing system. The good news is that the bitter signal of the taste sensor correlated with the analytically measured bitter units and concentration of iso-alpha acids. This taste sensor gives the capability to evaluate a beverage matrix without psychological and physiological effects. The first results in aqueous solutions are promising, however further trials with different matrix compositions have to be carried out to conclude if this system is a valuable means to measure the bitter sensation in beer.2

Beta acids, Xanthohumol’s competitor?
The cancer chemopreventive effects that we know from xanthohumol seem to also apply for beta acids. French researchers observed a drastic reduction (70-80%) in the total number of tumours in the colon of rats treated with lupulones when compared with the control group with no treatment. Lupulones induced apoptosis in colon-derived metastatic cells by activating death receptor signalling pathways, and, at a low dose (4 mg/kg/day), reduced colon cancer development 3.

Why does hops make sleepy?
Hops are often used as a seditive (c. p. Newsletter April 2005). However it is not completely understood what exactly induces the sedating effect. American researchers have investigated the effects of hops extract on the body temperature in male mice and it was found that hops extract significantly decreased their body temperature. The effects of the hops were comparable with melatonin. The hypothermic effects of melatonin and hops extract were antagonized with the competitive melatonin receptor antagonist luzindole. Thus, it seems that the hypothermic - and therefore the sleep-inducing effects of hops extract are possibly mediated through activation of melatonin receptors 4.