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The Janus Corner

This occasional section within the journal surveys visions and achievements, often not on the main track of the developing biomedical sciences, but all relating to discoveries and developments of medicinal – both ancient and modern. What they have in common, in one way or another, is providing further background and glances around the edges of the core discipline of pharmacognosy, as it has been and continues to evolve within our times.

Increased Consumption of Tea and Coffee Decreases the Risk of Dying in People with Type 2 Diabetes

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A recent study has reported that the consumption of relatively high levels of tea and coffee reduces all-cause mortality in individuals with type 2 diabetes mellitus (DM).[1] The study monitored the health of nearly 5000 Japanese people with type 2 DM for approximately 5 years as part of a larger study to examine the effects of multiple lifestyle factors on DM. The study found that people that consumed tea and/or coffee had significantly reduced death rates (from any cause) than those that did not drink either beverage. The reduction in mortality correlated with increased consumption, with reductions of 15%, 27% and 40% for people that drank 1, 2-3, or ≥4 cups of tea daily. Similarly, 12%, 19% and 41% reductions were associated similar amounts of coffee daily. Interestingly, the two beverages seemed to potentiate each other's protective properties. Indeed, substantially lower rates of death were reported in people that drank 2-3 cups of green tea plus 2 or more of coffee (51% decreased mortality); 4 or more cups of green tea plus 1 cup of coffee every day (58% decreased mortality); or 4 or more cups of green tea and 2 or more cups of coffee (63% decreased mortality) every day. The reasons for the protective effects of tea and coffee were not determined by that study, although both beverages are rich in phenolic antioxidants, including theonine and caffeine and these may contribute to the protective effects in DM patients.

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Uncaria tomentosa (Willd. Ex Schult.) DC. (cat's claw) Bark Extracts Inhibit SARS-CoV2 Replication *in vitro*

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Uncaria tomentosa Willd. DC. (Family: Rubiaceae) is a woody vine (Figure 1a) that is restricted to tropical regions in Central and South America and is indigenous to the Amazon rainforest. It is commonly known as cat's claw (or uña de gato in Spanish) due to claw shaped thorns. It is particularly well known for its use by the Ashaninka Indians of Peru to treat a variety of diseases, it is perhaps best known as an effective therapy for both rheumatoid arthritis and osteoarthritis.[1] It is also beneficial in the treatment of asthma, allergies, bursitis, cancer, candidiasis, diabetes, gastric ulcers, gout, Crohn's disease, fibromyalgia, sexually transmitted diseases (STI's) and viral infections.[2] A recent study has also reported that it has anticancer properties when tested against Caco2 colorectal and HeLa cervical cancer cell lines.[3] More recently, South American researchers reported that hydroalcohol *U. tomentosa* (stem bark extracts inhibited SARS-CoV-2 replication in Vero E6 cytopathic and plaque reduction assays.[4] Indeed, nearly 93% reduction in viral plaques were noted when the cells were exposed to 25µg/mL for 48 hr. The group also screened the extracts for toxicity and calculated a selectivity index of 4.1 for the extract.

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