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The Janus Corner

Looking Back  Looking Forward

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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 medicinals – 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.

The Janus Corner (named after the god of beginnings and ends in Roman mythology) will encompass mini-biographies of some notable researches (and the people behind them), historical reflections and other archival surveys with significant pharmacognosy content, book reviews, article alerts, and whatever else, you – our readers– may consider important to pass on to fellow users of this journal.

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Looking Back: A retrospective review.

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THE STRUCTURE AND UTILISATION OF OIL SEEDS. J.G. VAUGHAN. LONDON. CHAPMAN AND HALL 1970: 279PP.

The more things seem to move forward, the more they remain the same. Or as the French would say, "Plus ca change, plus la meme."

This is a fascinating book of pharmacognosy, even though the author may not have realised he was writing about seed oils pharmaca i.e. drugs. However he does mention several pharmaceutical uses of oil seeds as sources of excipients, cosmetics, herbal butters, suppositories, etc.

From *Anacardiaceae* (think cashew, pistachio) to *Zygophyllacacae* (African desert date), a detailed description is given of the macroscopic and microscopic structure of the pericarp (shell), the testa (kernel skin), the seed endosperm and embryo. Where appropriate the author includes discussions of the fruit pulp (mesocarp) if it is oleaginous as in olives, oil palm. Over 300 references are cited – and this within a book published over 40 years ago.

Simple observations with a microscope are still an important part of the process of oil seed recognition and certification. Just relying on HPLC determinations of fatty acid composition may overlook oil-soluble components that are pharmaco-active in their own right e.g. squalene in some olive oils, carotenes in palm oil or azadirachtin in neem oil.

This book is still useful as a fine repository of anatomical illustrations of the morphological characteristics of what are now important sources of pharmaco-active agents, though historically quite ancient. It certainly complements The Lipid Handbook now in its third edition (eds. FD Gunstone, JL Harwood, AJ Dijkstra) London, CRC Press UK, 2007: 1472 pp.

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Australian Wallaby Compounds: The Key To Fighting Superbugs?

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Pharmacognostic agents have a history of providing us with antibiotic agents, usually arising from plants or fungal and bacterial organisms.[1] Whilst the number of vertebrate derived pharmacognostical agents is relatively small, examples do exist of vertebrate derived medicines. Recent reports in the Australian media indicate that peptides from wallabies (an Australian marsupial) may provide us with the next round of agents to combat antibiotic resistant bacteria.[2, 3] Wallabies give birth to immature young which do not have a fully functioning immune system. Instead, they rely on maternal antimicrobial agents delivered via the milk to assist their immune system in combating microbial infection. It was recently reported that a compound isolated from wallaby milk was a very potent antibiotic against dangerous bacteria, including multidrug resistant strains of *Pseudomonas aeruginosa*, *Klebsiella pneumonia* and *Acinetobacter baumanii*. The research team is now working on a method to deliver the peptide to dairy cattle as a treatment for mastitis, as well as further exploring the medicinal potential of this peptide.

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