

The Chemistry of Milk Thistle: Generating Materials for Pharmacological Studies

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Milk thistle [*Silybum marianum* (L.) Gaertn. (Asteraceae)] has been used since the time of the ancient Greeks for the treatment of liver disorders. In modern herbal pharmacopeia, an extract of the seeds, termed silymarin, is utilized for hepatoprotection, particularly due to insult from mushroom poisoning, cirrhosis, and/or hepatitis. The chemistry of silymarin, and the flavonolignans isolated therefrom, has been pursued for more than 60 years, and over the last 15 of these, we have contributed to this knowledge base, largely via the development and characterization of reference standards. Those compounds have, in turn, facilitated studies on their pharmacological effects, both individually and as well-characterized mixtures. This presentation will highlight some of the natural products chemistry utilized to generate these materials.

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