

Development, Isolation, and SAR of Aspirin from Willow Bark †

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Abstract: The history of the discovery of aspirin stretches back more than 3500 years to when bark from the willow tree was used as an analgesic and antipyretic. Three key person in the discovery of aspirin at Bayer were Arthur Eichengrün (1867–1949), Felix Hoffmann (1868–1946), and Heinrich Dreser (1860–1924). There is ongoing controversy over how the credit for the discovery of aspirin should be distributed. The active agent within willow bark was salicin, which would later form the basis of the discovery of aspirin. The active ingredient in willow bark is yellow crystals called Salicin. The stronger compound, salicylic acid, is isolated from willow bark by crystallization. Modification in salicylic acid with introducing an acetyl group in place of a hydroxyl group produces acetylsalicylic acid i.e., aspirin. Aspirin has come a long way since the use of willow bark by the ancient Sumerians and Egyptians. It is a very commonly used drug and has proved life-saving in the prevention of cardiovascular disease and proved as a potent analgesic and antipyretic drug. This study is focused on the mechanism of development, isolation, and SAR of Aspirin from a Botanical Substance, Willow Bark. It is also explored that how it reduces the risk of mortality due to cardiovascular disease.

Keywords: aspirin; willow bark; analgesic; antipyretic.

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Conflicts of Interest

The authors declare no conflict of interest.