



## Mesua sp.: chemical aspects and pharmacological relevance of prenylated polyphenols

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Titre	Mesua sp.: chemical aspects and pharmacological relevance of prenylated polyphenols
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Auteur	Rouger, Caroline [1], Derbré, Séverine [2], Richomme, Pascal [3]
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Mots-clés	immunomodulation [4], Mammea coumarins [5], Mesua L. [6], Prenylated polyphenols [7], Xanthonés [8]
Résumé en anglais	<p>The genus <i>Mesua</i> L. (Calophyllaceae) comprises approximately 50 species that grow in the restrictive area of South East Asia. Investigations of <i>Mesua</i> species reported the chemodiversity and pharmacological relevance of their phytoconstituents, in particular polyphenolic compounds. To date, about 170 secondary metabolites have been identified from 13 <i>Mesua</i> species, predominantly xanthonés and coumarins. Most of them hold a prenylated skeleton and display activities such as antitumor and antimicrobial, antioxidant, anti-inflammatory or immunomodulating properties, which were evaluated using either in vitro assay or, in rare cases, in vivo animal studies. Prenylation of aromatic compounds appears as a key element to enhance their biological activities, including their cytotoxicity and, could be involved in their inhibitory potential towards enzymes playing crucial roles in inflammatory and immune cascades. The aim of this review is to provide a systematic and comprehensive overview of <i>Mesua</i> polyphenolic secondary metabolites and their pharmacological properties. Among them, the structure of coumarin beccamarin T is herein revised and attributed to lepidotol A based on a careful examination of the 1D and 2D NMR spectra of the respective compounds. A considerable attention is also given to the place of prenylated polyphenols as anti-inflammatory and immunomodulatory molecules, to highlight the interest of <i>Mesua</i> metabolites as chemical probes for target discovery.</p>
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### Liens

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- [4] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=16885>
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- [8] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=19>
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