

No Bees, No Life



Peter Kozmus, Boštjan Noč and Karolina Vrtačnik
together with the 66 most important names
in the field of beekeeping from 32 countries

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Bee Products in Pharmacy

Introduction

Bee products such as honey, bee pollen, propolis, bee venom and beeswax, which have been used as food and for therapeutic purposes since ancient times, are under investigation as new drugs. They are studied for use for new pathologies that arise with the increase in average life expectancy, and also in research for new therapeutic agents to counteract the resistance and tolerance of current treatments (for example, antibiotics, anxiolytics, antidepressants, etc.) (Silva et al., 2014). As an example of the importance of the natural sources in drug discovery, Newman and Cragg (2012) show figures related to a total of 118 approved antibacterial drugs where only 26 are totally synthetic. Aside from the 14 vaccines, all the others are from natural products (10), derived from natural product, which generally means a semisynthetic modification (67), made completely by synthesis but the pharmacophore is/was from natural products. A similar approach can be taken for anticancer medicines with a total of 128 approved, of which only 20 are completely synthetic, the rest are natural products and/or derived from them. In this chapter, we briefly demonstrate, that bee products have the potential to be explored for therapeutic application for different diseases in the near future, complying with all the rules required by the World Health Organization (Efficacy, Safety and Quality).