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Inhibition of melanogenesis by aurones

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Tyrosinase is a di-copper oxidative enzyme widely present in plants, mushroom, bacteria and humans. It remains the most efficient way to down-regulate melanin production and improve melanin-biosynthesis disorders. In humans, tyrosinase inhibitors were developed to be used as dermocosmetics for management of melanogenesis. In this regard, a large number of tyrosinase inhibitors are reported in literature, but only very few of them have reached the human use.

This lecture will focus on structure, mechanism of action of tyrosinase and design, investigations of structurally characterized molecules with better efficacy than existing inhibitors without cell toxicity. A special focus will be made on inhibitors derived from aurones that led to the discovery of the most active inhibitors of tyrosinase ever reported.

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