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(54) Title: METHOD AND CELL LINE FOR PRODUCTION OF POLYKETIDES IN YEAST

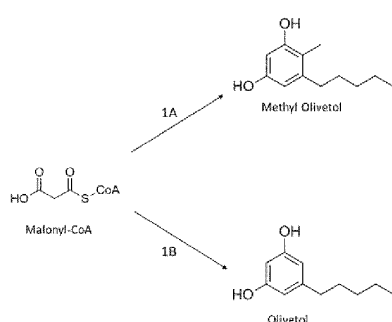


Fig. 8

(57) Abstract: A method and cell line for producing polyketides in yeast. The method applies, and the cell line includes, a yeast cell transformed with a polyketide synthase coding sequence. The polyketide synthase enzyme catalyzes synthesis of olivetol or methyl-olivetol, and may include Dictyostelium discoideum polyketide synthase ("DiPKS"). Wild type DiPKS produces methyl-olivetol only. DiPKS may be modified to produce olivetol only or a mixture of both olivetol and methyl-olivetol. The yeast cell may be modified to include a phosphopantethienyl transferase for increased activity of DiPKS. The yeast cell may be modified to mitigate mitochondrial acetaldehyde catabolism for increasing malonyl-CoA available for synthesizing olivetol or methyl-olivetol.