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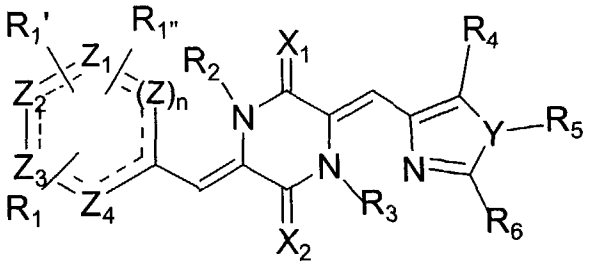
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(54) Title: DEHYDROPHENYLAHISTINS AND ANALOGS THEREOF AND THE SYNTHESIS OF DEHYDROPHENYLAHISTINS AND ANALOGS THEREOF



(I)

(57) Abstract: Compounds represented by structure (I) are disclosed, as are methods for making such compounds, wherein said methods comprise reacting a diacyldiketopiperazine with a first aldehyde to produce an intermediate compound; and reacting the intermediate compound with a second aldehyde to produce the class of compounds with the generic structure, where the first aldehyde and the second aldehydes are selected from the group consisting of an oxazolecarboxaldeyhyde, imidazolecarboxaldehyde, a benzaldehyde, imidazolecarboxaldehyde derivatives, and benzaldehyde derivatives, thereby forming the above compound wherein $R_1$, $R_1$', $R_1$", $R_2$, $R_3$, $R_4$, $R_5$, and $R_6$, $X_1$ and $X_2$, Y, Z, $Z_1$, $Z_2$, $Z_3$, and $Z_4$ may each be separately defined in a manner consistent with the accompanying description. Compositions and methods for treating cancer and fungal infection are also disclosed.

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