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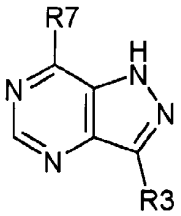
(54) Pyrazolo[4,3-D]pyrimidines, process for their preparation and methods of use

(57) The invention relates to 3-, 7-disubstituted pyrazolo[4,3-d]pyrimidines represented by the general formula **I**



I

and pharmaceutically acceptable salts thereof, wherein **R3** is selected from the group consisting of alkyl, cycloalkyl,, cycloalkyl alkyl, cycloheteroalkyl alkyl, cycloheteroalkyl, aryl, heterocycle, heteroaryl, arylalkyl, heteroarylalkyl, and heteroalkyl, wherein each of the groups may optionally be substituted,
R7 is selected from the group consisting of halogen, hydroxyl, hydroxylamino, amino, carboxyl, cyano, nitro, amido, sulfo, sulfamido, carbamino, unsubstituted or substituted alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroalkyl, substituted or unsubstituted heteroarylakyl, substituted or unsubstituted cycloalkyl alkyl, substituted or unsubstituted cycloheteroalkyl alkyl;
R7'-X- wherein **X** is an -NH-, -N(alkyl)-, -O- or -S- moiety and
R7' is selected from the group consisting ofH, alkyl, cycloalkyl, aryl, alkylcycloalkyl, arylalkyl, heterocycle, heterocyclealkyl, substituted alkyl, substituted cycloalkyl, substituted aryl, substituted arylalkyl, substituted heterocycle, substituted heteroaryl, substituted heteroarylalkyl, substituted heteroalkyl, substituted cycloalkyl alkyl and substituted cycloheteroalkyl alkyl,
wherein the groups are preferably substituted by more than one halogen, hydroxyl, amino, mercapto, carboxyl, cyano, nitro, amido, sulfo, sulfamido, carbamino, alkyl, alkoxy, and substituted alkyl group

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