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(54) **Title:** DERIVATIVES OF IMIDAZO[4,5-d]PYRIDAZINE, THEIR PREPARATION AND THEIR THERAPEUTIC APPLICATION

(57) **Abstract:** The present invention relates to a compound of formula (I) wherein R_1 represents H, (C_1-C_6)alkyl-; hydroxy-(C_1-C_6)alkyl-; NH_2-(C_1-C_6)alkyl-; NH-(C_1-C_6)alkyl-(C_1-C_6)alkyl-; N((C_1-C_6)alkyl)$_2$-(C_1-C_6)alkyl-; (C_2-C_6)alkenyl-; (C_2-C_6)alkynyl-; phenyl(C_1-C_6)alkyl-; (C_3-C_{10})cycloalkyl(C_1-C_6)alkyl-; (C_3-C_{10})membered heterocycloalkyl(C_1-C_6)alkyl-; (C_5-C_{10})membered heteroaryl(C_1-C_6)alkyl-; (C_3-C_{10})membered heterocycloalkyl- NH-(C_1-C_{16})alkyl-; and (C_3-C_{10})membered heterocycloalkyl-N(C(O)-(C_1-C_6)alkyl)-(C_1-C_{16})alkyl-; R_2 represents a halogen atom, a (C_1-C_6)alkyl- group or other well defined groups; and R_3 represents a deuterium atom; H, (C_1-C_6)alkyl-; (C_2-C_6)alkenyl-; (C_2-C_6)alkynyl-; (C_1-C_6)alkylthio-; -OR_6; -NR_7R_8; (C_3-C_{10})membered heterocycloalkyl-; (C_5-C_{10})membered heteroaryl-; -(C_6-C_{10})membered aryl; and (C_3-C_{10})cycloalkyl-. The present invention further relates to intermediates of these compounds, processes for their preparation, a medicament and a pharmaceutical composition comprising them, and their therapeutic uses, in particular as TLR7 and /or TLR8 agonists, as well as their use in a vaccine.