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(54) Title: RAFAMYCIN ANALOGS AND METHODS FOR MAKING SAME

(57) Abstract: A semi-synthetic rapamycin analog with a triazole moiety or a pharmaceutically acceptable salt or prodrug thereof, is a broad-spectrum cytostatic agent and a m TOR inhibitor, and is useful in the treatment of various cancers, or tumors in organs such as kidney, liver, breast, head and neck, lung, prostate, and restenosis in coronary arteries, peripheral arteries, and arteries in the brain, immune and autoimmune diseases. Also disclosed are fungal growth-, restenosis-, post-transplant tissue rejection- and immune- and autoimmune disease- inhibiting compositions and a method of inhibiting cancer, fungal growth, restenosis, post-transplant tissue rejection, and immune and autoimmune disease in a mammal. One particular preferred application of such triazole-moiety containing rapamycin analog is in treating renal carcinoma, lung cancer, colon cancer, and breast cancers wherein potency of the drug, its half-life, tissue distribution properties, and its pharmacokinetic properties including bioavailability through oral and intravenous routes are essential to the clinical outcomes.

