

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2006/0035909 A1

Fuksova et al.

(43) **Pub. Date:** Feb. 16, 2006

(54) AZAPURINE DERIVATIVES

(76) Inventors: Kveta Fuksova, Praha (CZ); Libor Havlicek, Praha (CZ); Vladimir Krystof, Ostrava (CZ); Rene Lenobel, Frydek Mistek (CZ); Miroslav Strnad, Olomouc (CZ)

> Correspondence Address: LAHIVE & COCKFIELD, LLP. 28 STATE STREET **BOSTON, MA 02109 (US)**

(21) Appl. No.: 11/051,059

(22) Filed: Feb. 4, 2005

Related U.S. Application Data

Continuation of application No. PCT/IB03/04188, filed on Aug. 22, 2003.

(30)Foreign Application Priority Data

Publication Classification

(51) Int. Cl. (2006.01)A61K 31/519 C07D 487/02 (2006.01) **U.S. Cl.** 514/261.1; 544/254

ABSTRACT (57)

The present invention relates to a compound of formula I, or a pharmaceutically acceptable acid salt thereof.

The invention further relates to the use of said compounds in the treatment of hyperproliferative skin disorders, viral infections, cancer, rheumatoid arthritis, lupus, type I diabetes, multiple sclerosis, restenosis, polycystic kidney disease, graft rejection, graft versus host disease and gout, or for psoriasis, parasitoses such as those caused by fungi or protists, or Alzheimer's disease. Further aspects of the invention relate to the use of such compounds in the inhibition of cell proliferation, in the induction of apoptosis, to modulate the activity of adrenergic and/or purinergic receptors or to suppress immunostimulation. The invention also relates to the use of 2,6,9-trisubstituted 8-azapurines in maintaining mammalian ooctyes at the germinal vesicle

