PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 :
C07D 241/44, A61K 31/50, C07D 215/20, 215/38, 405/12, 241/42, 453/06

A1

(11) International Publication Number: WO 00/31051

(43) International Publication Date: 2 June 2000 (02.06.00)

(21) International Application Number: PCT/US99/27825

(22) International Filing Date: 23 November 1999 (23.11.99)

(30) Priority Data:
09/198,718 24 November 1998 (24.11.98) US

(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application
US 09/198,718 (CON)
Filed on 24 November 1998 (24.11.98)

(71) Applicant *(for all designated States except US)*: AVENTIS PHARMACEUTICALS PRODUCTS INC. [US/US]; 500 Arcola Road, Collegeville, PA 19426-0997 (US).

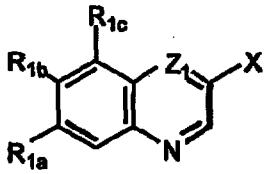
(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: MYERS, Michael, R. [US/FR]; 3 allée du Prieuré, F-78860 St. Nom La Breteche (FR). HE, Wei [US/US]; 1005 Bayberry Lane, Collegeville, PA 19426 (US). SPADA, Alfred, P. [US/US]; 473 Painter Way, Lansdale, PA 19446 (US). MAGUIRE, Martin, P. [US/US]; Apartment 507, 169 Monsignor O'Brien Highway, Cambridge, MA 01801 (US).

(74) Agents: OEHLER, Ross, J. et al.; Aventis Pharmaceuticals Products Inc., 500 Arcola Road, Collegeville, PA 19426 (US).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: QUINOLINE AND QUINOXALINE COMPOUNDS AS PDGF-RECEPTOR AND/OR LCK TYROSINE KINASE INHIBITORS



(I)

(57) Abstract

This invention is directed to quinoline/quinoxaline compounds of formula (I), which inhibit platelet-derived growth factor or $p56^{lck}$ tyrosine kinase activity, to pharmaceutical compositions comprising theses compounds, and to the use of these compounds for treating a patient suffering from or subject to disorders/conditions involving cellular differentiation, proliferation, extracellular matrix production or mediator release and/or T cell activation and proliferation.