

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 November 2002 (28.11.2002)

PCT

(10) International Publication Number
WO 02/094826 A1

(51) International Patent Classification⁷: **C07D 471/16**,
A61K 31/505, 31/435, C07D 471/16, 239/00, 211/00,
209/00, 471/16, 211/00, 211/00, 209/00, 471/16, 239/00,
239/00, 211/00, 471/16, 239/00, 211/00, 211/00

CA 92121 (US). **ST-DENIS, Yves** [CA/IT]; Glaxo-
SmithKline S.p.A., Via Alessandro Fleming 2, I-37135
Verona (IT). **WILLIAMS, John, Patrick** [US/US]; Neu-
rocrine Inc., 10555 Science Center Drive, San Diego, CA
92121 (US).

(21) International Application Number: PCT/GB02/02377

(74) Agent: **GIDDINGS, Peter, John**; GlaxoSmithKline, 980
Great West Road, Brentford, Middlesex TW8 9GS (GB).

(22) International Filing Date: 21 May 2002 (21.05.2002)

(25) Filing Language: English

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZM, ZW.

(26) Publication Language: English

(30) Priority Data:
60/292,660 21 May 2001 (21.05.2001) US

(71) Applicants (*for all designated States except US*): **NEURO-
CRINE INC.** [US/US]; 10555 Science Center Drive, San
Diago, CA 92121 (US). **SB PHARMCO PUERTO RICO
INC.** [US/US]; CSC, The United States Corporation Com-
pany, 105 Ponce de Leon Avenue, One Comptroller Plaza,
Hato Rey, Puerto Rico 00917 (US).

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, 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, TR), OAPI patent
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG).

(72) Inventors; and

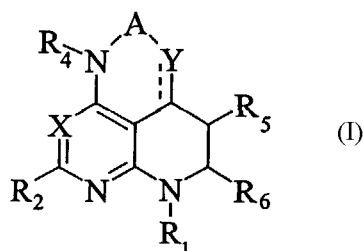
(75) Inventors/Applicants (*for US only*): **DI FABIO, Ro-
mano** [IT/IT]; GlaxoSmithKline S.p.A., Via Alessandro
Fleming 2, I-37135 Verona (IT). **GENTILE, Gabriella**
[IT/IT]; GlaxoSmithKline S.p.A., Via Alessandro Fleming
2, I-37135 Verona (IT). **HADDACH, Mustapha** [US/US];
Neurocrine Inc., 10555 Science Center Drive, San Diego,

Published:

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: TRI-AND TETRAAZA-ACENAPHTHYLEN DERIVATIVES AS CRF RECEPTOR ANTAGONISTS



(57) Abstract: CRF receptor antagonists are disclosed which have utility in the treatment of a variety of disorders, including the treatment of disorders manifesting hypersecretion of CRF in a warm-blooded animals, such as stroke. The CRF receptor antagonists of this invention have the following structure of formula (I): including stereoisomers, prodrugs and pharmaceutically acceptable salts thereof, R1, R2, R4, R5, R6, A, X, and Y are as defined herein. Compositions containing a CRF receptor antagonist in combination with a pharmaceutically acceptable carrier are also disclosed, as well as methods for use of the same.