



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification<sup>6</sup> : <b>A61K 31/565, 31/505, 31/535, 31/37, 31/27</b></p>	<p><b>A3</b></p>	<p>(11) International Publication Number: <b>WO 99/40944</b> (43) International Publication Date: 19 August 1999 (19.08.99)</p>
<p>(21) International Application Number: PCT/GB99/00416 (22) International Filing Date: 10 February 1999 (10.02.99) (30) Priority Data: 9802957.2 12 February 1998 (12.02.98) GB 09/115.016 14 July 1998 (14.07.98) US (71) Applicant (for all designated States except US): DE MONTFORT UNIVERSITY [GB/GB]; The Gateway, Leicester, Leicestershire LE1 9BH (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): POTTER, Gerard, Andrew [GB/GB]; 122 St. Leonards Road, Leicester, Leicestershire LE2 1WR (GB). PATTERSON, Lawrence, Hylton [GB/GB]; Flat 1, Gynsill Court, Gynsill Lane, Anstey, Leicester, Leicestershire LE3 7AH (GB). BURKE, Michael, Danny [GB/GB]; One Ash, 97 Uppingham Road, Leicester, Leicestershire LE7 9HL (GB). (74) Agents: McNEIGHT, David, Leslie et al.; McNeight &amp; Lawrence, Regent House, Heaton Lane, Stockport, Cheshire SK4 1BS (GB).</p>		<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, 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, 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, SZ, 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).</p> <p><b>Published</b> <i>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.</i></p> <p>(88) Date of publication of the international search report: 23 September 1999 (23.09.99)</p>
<p>(54) Title: HYDROXYLATION ACTIVATED DRUG RELEASE</p>		
<p>(57) Abstract</p> <p>The present invention concerns prodrugs whose aromatic oxidation, particularly their enzymatic aromatic hydroxylation, results in their activation by the release of a drug moiety. It particularly concerns anti-tumour prodrugs and those which are specifically activated by the hydroxylation activity of the P-450 enzyme CYP1B1. Also provided are methods of detection of aromatic oxidation activity.</p>		

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB 99/00416

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 6 A61K31/565 A61K31/505 A61K31/535 A61K31/37 A61K31/27

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 43 09 344 A (EISENBRAND GERHARD PROF DR) 29 September 1994  see page 2, line 1 - page 4, line 35 ---	1-15, 18, 19, 21, 26-36
X	DE 42 36 237 A (BEHRINGWERKE AG) 28 April 1994  see page 2, line 3 - line 9 see page 3, line 15 - line 17 see page 4, line 10 - page 5, line 6 see page 5, line 61 - page 6, line 6 ---  -/--	1-15, 18, 19, 21, 26-36

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

22 June 1999

Date of mailing of the international search report

06/08/1999

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International Application No  
PCT/GB 99/00416

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>EP 0 642 799 A (BEHRINGWERKE AG ;HOECHST SA LAB (FR)) 15 March 1995</p> <p>see page 5, Pro-drugs A-C see page 9, Pro-drug D see claim 5</p>	1-15,18, 19,21, 26-36
X	<p>MURRAY G.I. ET AL.: "Tumour-specific Expression of Cytochrome P450 CYP1B1" CANCER RESEARCH, vol. 57, 15 July 1997, pages 3026-3031, XP002106430 cited in the application see abstract see page 3030, column 1, line 15 - line 17 see page 3030, column 1, last paragraph</p>	1-15,18, 19,21, 26-36
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P,A	<p>US 5 773 435 A (VRUDHULA VIVEKANADA M ET AL) 30 June 1998 see abstract see figures 1-5 see claims 1-35</p>	1-36

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