



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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                             |                                                                                                                                         |                         |    |            |                             |    |     |                          |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----|------------|-----------------------------|----|-----|--------------------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(51) International Patent Classification <sup>7</sup> :<br/>C07C 323/62, C07D 233/61, 207/26,<br/>295/18, 213/74, 211/22, 207/14, 211/46,<br/>211/62, 211/60, 401/04, 217/02, 307/68,<br/>295/26, 317/66, 209/08, 295/205, 401/12,<br/>A61K 31/165, 31/33, A61P 29/00</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | A1                          | <p>(11) International Publication Number: <b>WO 00/59880</b></p> <p>(43) International Publication Date: 12 October 2000 (12.10.00)</p> |                         |    |            |                             |    |     |                          |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>(21) International Application Number: PCT/US00/08895</p> <p>(22) International Filing Date: 3 April 2000 (03.04.00)</p> <p>(30) Priority Data:</p> <table border="0"> <tr> <td>09/286,645</td> <td>2 April 1999 (02.04.99)</td> <td>US</td> </tr> <tr> <td>09/474,517</td> <td>29 December 1999 (29.12.99)</td> <td>US</td> </tr> <tr> <td>09/</td> <td>31 March 2000 (31.03.00)</td> <td>US</td> </tr> </table> <p>(71) Applicant: ABBOTT LABORATORIES [US/US]; Dept. 377,<br/>Building AP6D, 100 Abbott Park Road, Abbott Park, IL<br/>60064-6050 (US).</p>                                                                                                                                                                                                                                                                                                                                                                |                             | 09/286,645                                                                                                                              | 2 April 1999 (02.04.99) | US | 09/474,517 | 29 December 1999 (29.12.99) | US | 09/ | 31 March 2000 (31.03.00) | US | <p>(72) Inventors: LINK, James; Apartment 1405, 1630 Chicago<br/>Avenue, Evanston, IL 60201 (US). LIU, Gang; 838 Adderly<br/>Lane, Gurnee, IL 60031 (US). PEI, Zhonghua; 1733 Cedar<br/>Glen Drive, Libertyville, IL 60048 (US). VON GELDERN,<br/>Thomas, W.; 4209 W. Solon Road, Richmond, IL 60071<br/>(US). WINN, Martin; 1263 Carlisle Place, Deerfield, IL<br/>60015 (US). XIN, Zhili; 29607 N. Birch Avenue, Lake<br/>Bluff, IL 60044 (US). WANG, Sheldon; 1020 Talbot<br/>Lane, Grayslake, IL 60030 (US). BOYD, Steven, A.;<br/>410 Lakeview Dr., Mundelein, IL 60060 (US). ZHU,<br/>Gui-Dong; 1395 Alamaden Lane, Gurnee, IL 60030 (US).<br/>FREEMAN, Jennifer, C.; 142 Cecelia Street, Grayslake, IL<br/>60030 (US). GUNAWARDANA, Indrani, W.; 622 Nordic<br/>Court, Libertyville, IL 60048 (US). STAEGER, Michael,<br/>A.; 4919 S. 35th Street, Greenfield, WI 53221 (US). JAE,<br/>Hwan-Soo; 477 Woodlawn Ave, Glencoe, IL 60022 (US).<br/>LYNCH, John, K.; 8736 44th Ave, Kenosha, WI 53142<br/>(US).</p> <p>(74) Agents: STRODE, Janelle, D. et al.; Dept. 377, Building<br/>AP6D, 100 Abbott Park, Abbott Park, IL 60064-605 (US).</p> <p>(81) Designated States: AE, AG, AL, AM, AT, AU, AZ, BA, BB,<br/>BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM,<br/>DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,<br/>IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,<br/>LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,<br/>RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ,<br/>UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM,<br/>KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent<br/>(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent<br/>(AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT,<br/>LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI,<br/>CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b><br/>With international search report.<br/>Before the expiration of the time limit for amending the<br/>claims and to be republished in the event of the receipt of<br/>amendments.</p> |
| 09/286,645                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2 April 1999 (02.04.99)     | US                                                                                                                                      |                         |    |            |                             |    |     |                          |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 09/474,517                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 29 December 1999 (29.12.99) | US                                                                                                                                      |                         |    |            |                             |    |     |                          |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 09/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 31 March 2000 (31.03.00)    | US                                                                                                                                      |                         |    |            |                             |    |     |                          |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>(54) Title: CELL ADHESION-INHIBITING ANTIINFLAMMATORY AND IMMUNE-SUPPRESSIVE COMPOUNDS</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div data-bbox="363 1603 596 1727"> <p style="text-align: center;">(I)</p> </div> <div data-bbox="780 1641 1002 1727"> <p style="text-align: center;">(a)</p> </div> <div data-bbox="1110 1641 1310 1727"> <p style="text-align: center;">(b)</p> </div> </div> <p>(57) Abstract</p> <p>The present invention relates to cinnamide compounds of formula (I), in which at least one of R<sub>1</sub> to R<sub>5</sub> is a "cis-cinnamide" (a) or a "trans-cinnamide" (b) and the other variables are as defined in the claims, that are useful for treating inflammatory and immune diseases, to pharmaceutical compositions containing these compounds and to methods of inhibiting inflammation or suppressing immune response in a mammal.</p> |                             |                                                                                                                                         |                         |    |            |                             |    |     |                          |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |