

PATENT ASSIGNMENT

Electronic Version v1.1
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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Elan Pharma International Limited	04/02/2013
RECEIVING PARTY DATA	
Name:	Biogen Idec International Holding Ltd.
Street Address:	Canon's Court
Internal Address:	22 Victoria Street
City:	Hamilton
State/Country:	BERMUDA
Postal Code:	HM EX
PROPERTY NUMBERS Total: 116	
Property Type	Number
Application Number:	60777797
Application Number:	60776931
Application Number:	08186269
Application Number:	09155739
Patent Number:	5260210
Application Number:	08402962
Application Number:	07871223
Application Number:	07413274
Application Number:	08457024
Application Number:	08002474
Application Number:	10372111
Application Number:	60360134
Application Number:	60374510
Application Number:	10773406

Application Number:	60445818
Application Number:	12138075
Application Number:	11095822
Application Number:	60558120
Application Number:	60558121
Application Number:	60779190
Application Number:	10763424
Application Number:	60442171
Application Number:	60500316
Application Number:	60541946
Application Number:	61406365
Application Number:	61406358
Application Number:	11016386
Application Number:	09010377
Patent Number:	5811514
Patent Number:	6001809
Application Number:	08904415
Patent Number:	7030114
Application Number:	60108164
Patent Number:	6586602
Application Number:	08903585
Patent Number:	6362341
Application Number:	60112007
Application Number:	11147601
Patent Number:	7320960
Application Number:	08904424
Application Number:	60112020
Application Number:	60054453
Patent Number:	6583139
Application Number:	10382988
Application Number:	08904423
Application Number:	09127346
Application Number:	60104592
Application Number:	08920353
Application Number:	60112019

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Patent Number:	7288526
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Application Number:	09237473
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Application Number:	60117742
Application Number:	11285889
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Application Number:	60117743
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Patent Number:	6794506
Application Number:	60220131
Application Number:	60383020
Patent Number:	7008949
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Application Number:	60722355
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Application Number:	60777595
Application Number:	60802349
Application Number:	60996846
Application Number:	61172876
Application Number:	61516845
Application Number:	61330122
Application Number:	61392288

CORRESPONDENCE DATA

Fax Number: 2125046666

PATENT
REEL: 030155 FRAME: 0825

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ATTORNEY DOCKET NUMBER:	98032.010
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NAME OF SUBMITTER:	Jennifer A. Chick
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Signature:	/Jennifer A. Chick/
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Date:	04/04/2013
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Total Attachments: 34

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PATENT ASSIGNMENT

For valuable consideration as set forth in that certain Asset Purchase Agreement dated as of February 5, 2013 (the “Asset Purchase Agreement”) between Elan Pharma International Limited, an Irish private limited company (the “Assignor”) and Biogen Idec International Holding Ltd., a corporation of Bermuda having a place of business at:

Canon’s Court
22 Victoria Street
Hamilton HM EX
Bermuda

and its successors and assigns (collectively hereinafter called the “Assignee”), Assignor hereby assigns to Assignee its entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages, throughout the world in the inventions and improvements which are the subject of:

- a) Each of the patents and patent applications that are described in detail in Schedule A, annexed hereto and made a part hereof;
- b) Any and all applications that claim the benefit of the patents and patent applications described in detail in Schedule A, including any and all United States and foreign utility patents and patent applications, including non-provisional, continuing (continuation, continuation-in-part or divisional), reissue, and reexamination applications, utility models, and design registrations;
- c) Any and all inventions described in each of the patents and patent applications that are described in detail on Schedule A, and in all forms of intellectual and industrial property protection derivable therefrom, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patents and patent applications, including without limitation, patents, applications, utility models, inventor’s certificates, and designs together with the right to file applications therefore, and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The Assignor agrees to execute all papers necessary to perfect the recordation of this Assignment in connection with the applications and Letters Patent as above, and any non-provisional, continuing (continuation, divisional or continuation-in-part), reissue, reexamination or corresponding applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient to perfect the recordation of this Assignment.

The Assignor agrees to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the applications or Letters Patent or any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application thereof and to cooperate with the Assignee at Assignee's expense in every reasonable way possible in obtaining evidence and going forward with such interference or patent enforcement act.

The Assignor agrees to perform all affirmative acts at Assignee's request and expense that may be necessary to obtain or ensure a grant of a valid patent to the Assignee.

The Assignor hereby represents that Assignor has full right and authority to convey the entire interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict therewith.

The Assignor hereby grants the current patent practitioner(s) for each patent application or patent in the attached Schedule A the power to insert in this assignment, including the attached Schedule A, any further information regarding the patents and patent application so identified in Schedule A that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Notwithstanding any other provision of this Assignment to the contrary, nothing contained in this Assignment shall in any way supersede, modify, replace, amend, change, rescind, waive, exceed, expand, enlarge or in any way affect the provisions set forth in the Asset Purchase Agreement nor shall this Assignment reduce, expand or enlarge any remedies under the Asset

Purchase Agreement including, without limitation, any representations or warranties specified therein. In the event of any conflict or inconsistency between this Assignment and the Asset Purchase Agreement, the terms of the Asset Purchase Agreement shall prevail.

This Assignment shall be binding upon and inure to the benefit of Assignor, Assignee and their respective successors and permitted assigns.

[Signature pages follow.]

SIGNED, on behalf of the said Assignor,

ELAN PHARMA INTERNATIONAL LIMITED

By: _____

Name: William F. Daniel

Title: Director

Date: April 2, 2013

Before me this 2nd day of APRIL, 2013, personally
appeared WILLIAM F DANIEL known to me to be the person whose name is subscribed to the foregoing
Assignment, proved to me through satisfactory evidence of identification in the form of
PASSPORT, and acknowledged that he/she executed the same as
his/her free act and deed for the purposes therein contained.

Notary Public

My Commission Expires: N/A

TIMOTHY J. COUNSELL

NOTARY PUBLIC
CANON'S COURT
22 VICTORIA STREET
HAMILTON, BERMUDA



[SIGNATURE PAGE TO PATENT ASSIGNMENT]

PATENT
REEL: 030155 FRAME: 0830

SIGNED, on behalf of the said Assignee,

BIOGEN IDEC INTERNATIONAL HOLDING LTD.

By:



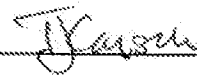
Name: Michael Dambach

Title: Director

Date: April 2, 2013

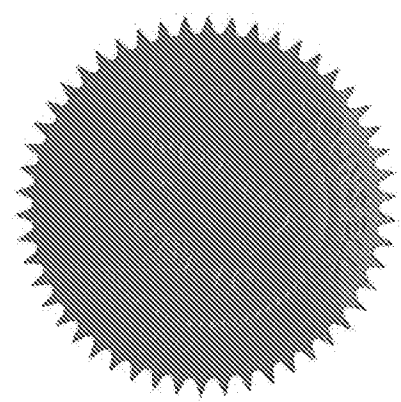
Before me this 2nd day of APRIL, 20 13, personally
appeared MICHAEL DAMBACH known to me to be the person whose name is subscribed to the foregoing
Assignment, proved to me through satisfactory evidence of identification in the form of
PASSPORT, and acknowledged that he/she executed the same as
his/her free act and deed for the purposes therein contained.

Notary Public



My Commission Expires: N/A

MOTHY J. COUNSELL
NOTARY PUBLIC
CANON'S COURT
23 VICTORIA STREET
HAMILTON, BERMUDA



[SIGNATURE PAGE TO PATENT ASSIGNMENT]

PATENT
REEL: 030155 FRAME: 0831

Schedule A

1.1(R)
ELAN PATENTS AND ELAN JCV/PML PATENTS

Elan Docket Number	Patent Nos	PCT Filing Date	Subject Matter/Title
Elan#575	USSN11/711,874 CA 2641160 <u>EP2007392A2</u> <u>JP2009531304</u>	2/28/07	Claims methods of treating patients with inflammatory or autoimmune diseases with the steps of a) administering an alpha-4 inhibitor, b) monitor patient for sign of PML c) discontinue administration of the alpha-4 inhibitor if signs of PML.
Elan#578	USSN12/757305 USSN11/711628 CA2641513 EP1988921 JP2009528359	2/28/07	Claims methods of treating patients with inflammatory or autoimmune diseases with the steps of 1) removing a blood or other sample from the patient, 2) testing the sample for the presence of antibodies to JCV and 3) treating the patient with Tysabri and other antibodies/agents if the sample is negative for the presence of JCV. Also includes optional steps of ongoing monitoring of JCV status during treatment.

1.1(T)(A)

ELAN PATENTS SOLELY OWNED BY ELAN

Docket Number	Patent/App. Nos.	PCT Filing	Subject Matter/Title
Elan #120	US5840299 US7435802 US8246958 USSN13/540462 AT333895T AU703152 AU1273697 BE0804237 CA2182013 CA2237808 CH0804237 CN218502 DE69535133 DE1220060000431 DK0804237T EP0804237 EP06013916.9 ES0804237 FI117509 FR0804237 GB0804237 GR3059394 HU220799 IE0804237 IT33022BE/2006 JP4115517 JP2000500501 JP2009235078 KR0367948 LU91271 MC0804237 MX198845 NL3002381 NO319867I NZ279730 PL181827 PT804237E SE804237	1/25/95 for 1 st PCT 11/21/95 for second PCT.	Humanized antibodies against leukocyte adhesion molecule VLA- 4/covers natalizumab and treatment of MS
Elan#101	US6033665	9/4/90	Compositions and methods for modulating leukocyte adhesion to brain endothelial cells. Method for inhibiting or ameliorating brain inflammation by administering a reagent (e.g. and anti-VLA4 ab) that can inhibit binding of leukocyte cell

Schedule A

1.1(T)(A)

Docket Number	Patent/App Nos.	PCT Filing	Subject Matter/Title
			surface receptor VLA-4 to brain endothelial cell adhesion molecule VCAM-1.
Elan #389	US7807167 USSN12/846350 AR038605 AT512163 AU2012202155 AU2009201587 BE1485127 BG1485127 CH1485127 CY1111787 CZ1485127 DE1485127 EE1485127 EG191/2003 EP1485127 EP2336184 EP2360185 ES1485127 FI1485127 FR1485127 GB1485127 GR20110402101 HK11107644.2 HK12101846.7 HU1485127 ID00200402079 IE1485127 IL203515 IN229010 IN2196/CHEN/2008 IT50073BE2011 JP2003570787 JP2011140493 BR20037975 CA2477178 CN2003809138 DK1485127T HK1073997 IL163725 LU1485127 MC1485127 MX2004PA8267 MYPI20030650 NL1485127 NZ591635 NZ579583	2/25/03	Claims a method of chronically reducing pathological inflammation in a patient in need thereof comprising chronically administering to the patient natalizumab or an immunologically active fragment thereof that inhibits alpha-4 integrin or inhibits a dimer comprising alpha-4 integrin in a therapeutically effective amount; wherein the chronic administration is for a period of at least 6 months, the pathological inflammation is caused by multiple sclerosis, and the therapeutically effective amount is sufficient to relieve symptoms of multiple sclerosis.

Schedule A

1.1(T)(A)

Docket Number	Patent/App Nos.	PCT Filing	Subject Matter/Title
	NZ535320 NO20044054 PH12011502301 PH12004501449 PK138459 PL372306 PT1485127E RU2359697 SE1485127 SG107209 SI1485127T SK1485127 TH080345 TR1485127 TW1346558 UA85537 UY27688 VE2003-000630 VN1200400960 ZA20047406		
Elan#578	USSN12/757305 USSN11/711628 CA2641513 EP1988921 JP2009528359	2/28/07	Claims methods of treating patients with inflammatory or autoimmune diseases with the steps of 1) removing a blood or other sample from the patient, 2) testing the sample for the presence of antibodies to JCV and 3) treating the patient with Tysabri and other antibodies/agents if the sample is negative for the presence of JCV. Also includes optional steps of ongoing monitoring of JCV status during treatment.
Elan #473	US8349321 USSN13/605590 USSN13/676866 AR043144 AU2010202254 AU2012202845 CA2515444 CL2242004 CN1771053 CO05091313 EG440/2005 EP1592440 EP2236154 GCCP20043212 HK06111920.6 IL170008 IN252222	2/9/04	Claims a stable, aqueous formulation of natalizumab at 0.1 – 200 mg/mL in phosphate buffer, polysorbate-80 at 0.02% w/v and sodium chloride.

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1.1(T)(A)

Docket Number	Patent/App Nos.	PCT Filing	Subject Matter/Title
	JP2006517233 JP2011088913 JP4728948 KR2005110628 MX2005PA008409 MX2012010160 MY20040377 NO20054164 PE01902005 PH12005501425 PK138744 RU2358763 SG114176 SK50672005 TH088557 TW1367766 UA82685 UY28184 VE2004000165 VN1200501248 ZA200506159		
Elan #498	USSN11/096074 AU2011213878 CA2561364 CL742-05 EP1734997 GCCP20054496 HK07106887.6 IL178302 JP2007531761 MY20051380 NO20064979 NZ594476 TH099245 TW094110385 UY28838	4/1/05 (both)	Recognition that Nat treated patients do better in absence of previous steroid treatment. Use of anti-VLA-4 to eliminate need for steroid treatment in patients with MS.
Elan #577	USSN11/713000 USSN13/425058 AU2007224228 CA2644110 DZ6107 EA016626 ECSP-08-8788 EG1440/2008 EP1991267 IL193775 IN8058/DELNP/2008 JP2009529043	3/2/07	Methods of Treating Inflammatory and Autoimmune Diseases with Natalizumab Claims to treating with natalizumab, then assaying for bivalent natalizumab as a biomarker.

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Docket Number	Patent/App Nos.	PCT Filing	Subject Matter/Title
	JP N/A KR20080104343 MA30287 MYPI 20083409 NZ596359 RS20080391 SG170058 SG N/A ZA200807346		
Elan #409	US7576101 AU2010212446 AU2011201262 CA2513125 CL0116-2004 CN194216 EG3992005 EP1592386 EP2484381 IL169770 IN229369 JP2006502997 JP2011225577 KR1020057013695 KR1020127024847 MX2010001362 MY20040124 NO20053920 PH12005501355 PH12008502081 PH12011501872 PK138804 RU2005126728 SG113988 SK20055064 TH088245 TW093101747 TW101146999 UA88604 UY27688 VN1200501185 ZA200505869	Both : 1/26/04	Methods of promoting remyelination by administering a compound.
Elan#489	USSN11049365 ARP50100431 AU2005213324 BRPI0507451.7 CA2555365 CL45773 CNZL200580012148	2/3/05	Methods and compositions for treating tumors and metastatic disease

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1.1(T)(A)

Docket Number	Patent/App Nos	PCT Filing	Subject Matter/Title
	EA009873 EP11005763.5 EP05712339 HK07104930.8 IDW00200602188 IL177201 JP4996261 MX286237 NZ584288 NO20063951 TW094103833 UY29741 VE2005000205 ZA200606557		
Elan#575 Lieberberg II "Risk Map" for other VLA-4 inhibitors (e.g. small molecules)	USSN11/711874 CA2641160 EP2007392 JP2009531304	2/28/07	Claims to treating with alpha-4 inhibitor compounds, monitoring PML/JCV status, then discontinuing treatment if needed.
Elan#665 Chackerian	WO2012061074	10/24/11	Methods for Determining Differences in Alpha-4 Integrin Activity by Correlating Differences in sVCAM and/or sMAdCAM Levels
Elan #198	US7,166,580	7/31/98	Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4
Elan #232	US7,115,768 US6,465,513	7/21/00	Multicyclic Compounds Which inhibit Leukocyte Adhesion Mediated by VLA-4
Elan #475	US7,605,166	6/25/04 (both)	Treating rheumatoid arthritis with small molecules and anti-VLA4
Elan #516	US7,205,310	4/29/05	Pyrimidine Hydantoin
Elan #518	AM012433 AR P050102848 AU2005265316 AZ012433 BR PI0513143-0 BY012433 CA2573245 CL1725-05 CN101035563 EA012433 EC SP-07-7231 EG16/2007 EP10179711.6 EP10179709.0 EP10180274.2 EP05770402.5	7/8/05	MULTIMERIC VLA-4 ANTAGONISTS COMPRISING POLYMER MOIETIES

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Docket Number	Patent/App Nos.	PCT Filing	Subject Matter/Title
	HK07109071.6 HK11109881.0 ID W-00200700049 IL180558 IN4960/KOLNP/2011 IN131/KOLNP/2007 JP2007-520561 KG012433 KR2007-7003108 KZ012433 MA28786 MD012433 MX292893 NO20070216 NZ588839 NZ552521 PE260.2009 PE5410 PH1-2005-500057 RU012433 SG128947 TJ012433 TM012433 TW094123303 US8,263,063 US7,794,700 VE2005-001467 ZA2007/000238		
Elan #521	US7,595,318	1/24/05	POLYETHYLENE GLYCOL CONJUGATES OF DIPEPTIDES
Elan #550	AU2006251620 BR PI0611285-4 CA2608073 CN200680024610. EP06770821.4 HK08113753.2 IN4506/KOLNP/2007 JP2008-512589 MX293500 NZ563577 SG2010 03303-3 SG2007-17692-8 US8,030,328 ZA2007/09717	5/22/06	IMIDAZOLONE PHENYLALANINE DERIVATIVES
Elan #558	AU2006269382 BR PI0612407-0 CA2614200 CN200680031902.5 CO08012301 EP06786449.6 HK09108998.6	7/7/06	PREPARATION OF POLYMER CONJUGATES OF THERAPEUTIC, AGRICULTURAL, AND FOOD ADDITIVE COMPOUNDS

Schedule A

1.1(T)(A)

Docket Number	Patent/App Nos.	PCT Filing	Subject Matter/Title
	IL188194 IN5075/KOLNP/2007 JP2008-520379 KR2008-7002982 MX MX/a/2008/000291 NZ564836 SG2010 04810-6 SG2007-18828-7 US8,268,935 ZA2007/11116		
Elan #576	AR07 01 00812 AU2007220068 AU2012261691 BR PI0708331-9 CA2643838 CN200780006583.7 EA200801906 EC SP-08-8701 EP07757498.6 HK09104919.1 IL193425 IN3409/KOLNP/2008 JP2008-556582 KR10-2008-7023333 MA30318 MX286803 MY PI 20083293 NO20083743 NZ570679 PH1-2008-501917 SG145322 TW096106544 US7,820,687 US7,579,466 ZA2008/07188	2/26/07	PYRIMIDINYL SULFONAMIDE COMPOUNDS WHICH INHIBIT LEUKOCYTE ADHESION MEDIATED BY VLA-4
Elan #581	US8,138,272	5/22/07	PREPARATION OF POLYMER CONJUGATES OF THERAPEUTIC, AGRICULTURAL, AND FOOD ADDITIVE COMPOUNDS
Elan #630	CA2708262 EP08859794.3 JP2010-536947 US8,269,009	12/5/08	METHODS AND COMPOSITIONS FOR TREATING LIQUID TUMORS
Elan #652	AU2010241742 BR PCT/US2010/032632 CA2760151 CN201080027375.7 EP10719684.2 IL215956 IN4416/KOLNP/2011	4/27/10	PYRIDINONE ANTAGONISTS OF ALPHA-4 INTEGRINS

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Docket Number	Patent/App Nos.	PCT Filing	Subject Matter/Title
	JP2012-507475 MX MX/a/2011/011326 SG201107840-9 US12/768,680		
Elan #659	AU- N/A CA- N/A CN- N/A EA- N/A EP- N/A JP- N/A KR- N/A NZ- N/A USSN13/098,538 USSN13/695,380	5/2/11	CNS trafficking

1.1(T)(B)

ELAN PATENTS JOINTLY OWNED PATENTS BY ELAN AND BIOGEN IDEC

Docket Number	Patent/App Nos.	PCT Filing	Subject Matter
P0646 Elan#587	USSN60/668404 US8124350 USSN13/242505 AU2006231511 AU2012202823 CA2603481 CN200680019422.7 EP06749243.9 HK08107142.4 IN4955/CHENP/2007 IL186431 JP2008505451 JP2011213503 NZ562784 SG136340 PCT/US2006/012493	4/6/2006	Antibody Assay

7.2(H)

ELAN PATENTS JOINTLY OWNED BY ELAN AND WYETH

Docket Number	Patent/App Nos.	PCT Filing	Subject Matter
Elan #425	AE471/2004 AR P 03 010 4212 AU2003240823 BR PI0308881-2 CA2481926 CH1507775 CN ZL 03811548.4 CO29059 CO29022 DE603 25 583.3-08 DK1507775 EC PI 2011-2058 EG PCT/120/2004 EP1507775 ES1507775 FR1507775 GB1507775 HK10772608 ID 0 019145 IE1507775 IL164225 IN215531 IT1507775 JP4469715 KR10-0978832 LU1507775 MX268526 NL1507775 NO329933 NZ535504 PH1-2204-501523 SG106956 TW I281470 US7,427,628 US7,026,328 US7,135,477 ZA2004/7590	5/27/03	Heterocyclic Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4
Elan #230	AR 033643 AU773538 CA2359115 CH1144388 CL140-2000 CN ZL 00804078.8 DE1144388 DK1144388 EA006301 EP1144384 ES1144388	1/21/00 (both)	Compounds Which Inhibit Leukocyte Adhesion Mediated By VLA-4

Docket Number	Patent/App Nos.	PCT Filing	Subject Matter
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Elan #564	BR PI-0616643-1 CA2624524 CH1940827 DE1940827 EP1940827 FR1940827 GB1940827 IE1940827 IN800/KOLNP/2008 JP2012-160870 JP2008-533682 ZA2008/03016 US7,727,996 US8,158,642 USSN13/416,997 USSN12/759,419	9/28/06	CARBAMATE COMPOUNDS WHICH INHIBIT LEUKOCYTE ADHESION MEDIATED BY VLA-4
Elan #565	AM015388 AU2006297220 AZ015388 BR PI-0616687-3 BY015388 CA2624450	9/28/06	PYRIMIDINYL AMIDE COMPOUNDS WHICH INHIBIT LEUKOCYTE ADHESION MEDIATED BY VLA-4

Docket Number	Patent/App Nos.	PCT Filing	Subject Matter
	CH1940826 CN ZL 2006-80035654.1 DE602006019296.7 DK1940826 EA015388 EP1940826 FR1940826 GB1940826 IE1940826 IL190084 IN1046/KOLNP/2008 JP2008-533649 KG015388 KR10-2008-7010301 KZ015388 MD015388 MX283343 NO20082002 NZ567270 PH1-2008-500753 RU015388 SE1940826 TJ015388 TM015388 US7,763,632 US7,511,052 ZA2009-06610 ZA2008/03280		
Elan #193	US6,489,300 US7,229,970 US6,900,179 US6,525,026 US6,939,855	7/31/98 (both)	Carbamyl Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA4
Elan #195	US6,291,453	7/30/98	4-Amino-Phenylalanine Type Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4
Elan #197	RU2000104853 VE1702-98	7/30/98	Substituted Phenylalanine Type Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4
Elan #219	US6,99,570	1/21/00	Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4
Elan #301	US7,745,454	7/20/01	Alpha Amino Acid Derivatives-Inhibitors of Leukocyte Adhesion Mediated by VLA-4
Elan #302	US6,953,802	7/20/01	Beta-Amino Acid Derivatives Inhibitors of Leukocyte Adhesion Mediated by VLA-4

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NON-ACTIVE ELAN PATENTS AND PRODUCT TRADEMARKS

Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
Elan#575	USSN60/777797 <u>WO2007100763</u>	2/28/07	Claims methods of treating patients with inflammatory or autoimmune diseases with the steps of a) administering an alpha-4 inhibitor, b) monitor patient for sign of PML c) discontinue administration of the alpha-4 inhibitor if signs of PML.
Elan#578	USSN60/776931 WO2007100770	2/28/07	Claims methods of treating patients with inflammatory or autoimmune diseases with the steps of 1) removing a blood or other sample from the patient, 2) testing the sample for the presence of antibodies to JCV and 3) treating the patient with Tysabri and other antibodies/agents if the sample is negative for the presence of JCV. Also includes optional steps of ongoing monitoring of JCV status during treatment.
Elan #120	USSN08/186269 USSN09/155739 EP96943512.2 JP2005-228930 JP2006045237 JP2009029781 WO9519790 WO9718838	1/25/95 for 1 st PCT 11/21/95 for second PCT.	Humanized antibodies against leukocyte adhesion molecule VLA-4/covers natalizumab and treatment of MS
Elan#101	CA2066738 JP3308526 JP2002284700 EP0493444 WO9105038	9/4/90	Compositions and methods for modulating leukocyte adhesion to brain endothelial cells. Method for inhibiting or ameliorating brain inflammation by administering a reagent (e.g. and anti-VLA4 ab) that can inhibit binding of leukocyte cell surface receptor VLA-4 to brain endothelial cell adhesion molecule VCAM-1.
Elan 101	US5260210 USSN08/402962 USSN07/871223 USSN07/413274 USSN08/457024 USSN08002474 JP2-513049	9/4/90	Blood-brain barrier model
Elan #389	USSN10/372111 USSN60/360134 USSN60/374510 AU2003213231	2/25/03	Claims a method of chronically reducing pathological inflammation in a patient in need thereof comprising chronically administering to the patient natalizumab or

Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
	CL0357-2003 EP2289941 JP2005526045 CO5611176 KR10-2004-7013609 NZ566530 PE02042004 SA03240276 TW201125584 WO03072040		an immunologically active fragment thereof that inhibits alpha-4 integrin or inhibits a dimer comprising alpha-4 integrin in a therapeutically effective amount; wherein the chronic administration is for a period of at least 6 months, the pathological inflammation is caused by multiple sclerosis, and the therapeutically effective amount is sufficient to relieve symptoms of multiple sclerosis.
Elan#578	USSN60/776931 WO2007100770	2/28/07	Claims methods of treating patients with inflammatory or autoimmune diseases with the steps of 1) removing a blood or other sample from the patient, 2) testing the sample for the presence of antibodies to JCV and 3) treating the patient with Tysabri and other antibodies/agents if the sample is negative for the presence of JCV. Also includes optional steps of ongoing monitoring of JCV status during treatment.
Elan #473	USSN10/773406 USSN60/445818 AU2004210679 WO2004071439	2/9/04	Claims a stable, aqueous formulation of natalizumab at 0.1 – 200 mg/mL in phosphate buffer, polysorbate-80 at 0.02% w/v and sodium chloride.
Elan#618	USSN12/138075 AR067010 AU2008265930 CA2691855 CN101827608 CO6251275 EA201000018 ECSP099837 EP2167126 IL202660 JP2010530003 KR20100038100 MA31519 MX2009013558 PE07672009 TW200909005 ZA200909090 WO2008157409	6/13/08	Lyophilized formulation
Elan #498	USSN11/095822 USSN60/558120 USSN60/558121	4/1/05 (both)	Recognition that Nat treated patients do better in absence of previous steroid treatment.

Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
	AU2005232571 AU2005231467 CA2561164 EP05763852 HK07110080.3 NZ580057 NZ550040 WO2005099776 WO2005097162		Use of anti-VLA-4 to eliminate need for steroid treatment in patients with MS.
Elan #577	USSN60/779190 AL07751993.2 BA07751993.2 BRPI0708392 CN101437541 CO08105676 ID200803172 MK07751993.2 MX2008011176 NZ570852 PH 1-2008-501982 WO2007103112	3/2/07	Methods of Treating Inflammatory and Autoimmune Diseases with Natalizumab Claims to treating with natalizumab, then assaying for bivalent natalizumab as a biomarker.
Elan #409	USSN10/763424 USSN60/442171 USSN60/500316 AR040100225 AU2004207535 AU2004207536 AU2010201472 CA2514117 CO5670359 EP1592387 JP2006500316 MX2005PA7843 MX2005PA7823 MX2008008267 MX2008007693 PE09422004 PK004004 SA20043259 VE2004000085 WO2004066931 WO2004066932	Both : 1/26/04	Methods of promoting remyelination by administering a compound.
Elan#489	USSN60541946 AM009873 AU2011211351 AZ009873 BY009873	2/3/05	Methods and compositions for treating tumors and metastatic disease

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Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
	GCGCCP20054271 IN3236CHENP2006 KG009873 KR1020067018079 KZ009873 MD009873 MYPI20050455 NZ595379 NZ548851 PE1292005 PH1200601433 PK006805 RU009873 TH097446 TJ009873 TM009873 WO05076843		
Elan#665 Chackerian	USSN61/406365 USSN61/406358	10/24/11	Methods for Determining Differences in Alpha-4 Integrin Activity by Correlating Differences in sVCAM and/or sMAdCAM Levels
Elan#188 Rubin, et al.	USSN11/016386 USSN09/010377	US filing date 1/21/98	Treatment of viral encephalitis by agents blocking alpha-VLA-4- integrin function
Elan#116 Bard (Athena Neurosciences)	US5811514 AU7523194 WO9504750	8/9/93	Integrin Blocking Molecule
Elan #123	CA2193508 EP0769958 FR N/A GB0769958 IE0769958 JP08-504401 US6,001,809	7/10/95	Inhibitors of Leukocyte Adhesion
Elan #178	AU86612/98 BR PI 9811599-5 CA2,291,475 CN98807762.0 EP98937991.2 HK00105228.3 HU P0002682 IL133642 JP2000-505190 KR1020007000992 MX914	7/30/98	Compounds which Inhibit Leukocyte Adhesion Mediated by VLA-4

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Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
	NO2000 0412 NZ502576 PH01-1998-00190 PK789/98 PL P-338554 RU2000104854 SG9906205-1 TW87112637 USSN08/904,415 US7,030,114 USSN60/108,164 VE1703-98 WO PCT/US98/15314 ZA98/6834		
Elan #192	AU85851/98 BR PI 9811573-1 CA2,291,473 CN98807764.7 EP98 937 054.9 HK105479.9 HU P0002680 IL133635 JP2000-505191 KR1020007000993 MX N/A NO2000 0414 NZ502577 PL P338510 RU2000104847 SG N/A US6,586,602 USSN08/903,585 USSN6,362,341 USSN60/112,007 WO PCT/US98/15327	7/31/98	Benzyl Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4
Elan #193	AR P980103779 AU740681 BR PI 9811598-7 CA2267175 CA2290745 CN1119340 CY1000051 CY0954519 DE69824007.3-08 DE P69812890.7 EP04011786.3 EP1000051 EP0954519 ES1000051	7/31/98	Carbamyl Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA4

Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
	FR1000051 FR0954519 GB1000051 GB0954519 HK05100583.8 HK N/A HU P0002035 IE1000051 IE00954519 IL133636 IT0954519 JP2009-185319 JP4431717 JP11-511273 KR639055 LU0954519 MC0954519 MX225022 NO2000 0413 NZ502,578 PH1-1998-01943 PK790/98 PL P338521 RU2220964 SG69767 TW NI-178167 USSN11/147,601 US7,320,960 USSN08/904,424 USSN60/112,020 USSN60/054,453 VE1683-98 WO PCT/US98/15324 WO PCT/US1998/15958 ZA98/6830		
Elan #194	AU88234/98 BR PI 9811594-4 CA2,290,748 CN98807721.3 EP98939871.4 HK N/A HU P0003921 IL133637 JP2000-505192 KR N/A MX678 NO2000 0452 NZ502579 PL P338457	7/31/98	Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4

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Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
	RU2000191804860 SG N/A US6,583,139 USSN10/382,988 USSN08/904,423 USSN09/127,346 USSN60/104,592 PCT/US98/16070		
Elan #195	AR P980103777 AU85846/98 BR PI 9812118-9 CA2290750 CN98807763.9 DE698 34 642.4-0 EP1001974 FR1001974 GB1001974 HK N/A HU P0004531 IE1001974 IL133638 JP2000-505189 KR1020007000994 MX237144 NO2000 0411 NZ502580 PH01-1998-001904 PK791/98 PL P338413 RU2000104855 SG9906194-7 TW87112593 USSN08/920,353 USSN60/112,019 VE1704-98 PCT/US98/15312 ZA98/6837	7/30/98	4-Amino-Phenylalanine Type Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA4
Elan #196	AU N/A BR PI 9812111-1 CA2,290,749 CN98807807.4 EP98 937 053.1 HK00195476.2 HU P0002495 IL133639 JP2000-505187 KR10-20007000986 MX706 NO2000 0410	7/31/98	Dipeptide and Related Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4

Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
	NZ502581 PL P-338373 RU2000 104848 SG9906190-5 US6,423,688 US7,288,526 US08/904,417 US60/100,429 PCT/US98/15325		
Elan #197	AR P98 01 03778 AU756696 BR PI 9812114-6 CA2290747 CN ZL98807753.1 EP98937990.4 HK N/A HU P0004259 IL133640 JP2000-505186 KR10-2000-7000991 MX711 NO2000 0450 NZ502582 PH01-1998-001905 PK792/98 PL P-375244 PL P-338423 SG69778 TW NI-178968 USSN08/920,394 US6,492,421 USSN60/104,599 PCT/US98/15313 ZA98/6827	7/30/98	Substituted Phenylalanine Type Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4
Elan #198	AU86786/98 BR PI 9811569-3 CA2,290,746 CN98807765.5 EP98 938 207.2 HK00105478.0 HU P0004529 IL133641 JP2000-505188 KR1020007001005 MX909 NO2000 0451 PL P338506 RU2000104859 SG N/A	7/31/98	Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4

Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
	USSN08/904,416 US6,559,127 USSN60/112,010 WO PCT/US98/15952 ZA502583		
Elan #219	AR P 00 01 00290 CA2359114 CL127-2000 CN ZL 00803103.7 EP00911618.7 HK1044549 JP2000-594831 MX226504 PH12000-000168 PK44/2000 TW089101187 USSN11/215,821 USSN09/237,473 US6,436,904 USSN60/183,005 VE0150-2000 PCT/US00/01603	1/21/00	Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4
Elan #221	AR P 00 01 00291 CA2358093 CL126-2000 CN ZL 00803103.7X DE600 27 268.0 08 EP05019666.6 EP1144435 ES1144435 FR1144435 GB1144435 HK1046146 IE1144435 IT1144435 JP2000-594829 MX236390 PH1-2000-00167 PK43/2000 TW 1224110 US7,101,855 USSN11/490,857 US09/238,661 US6,407,066 US60/198,244 VE2000-000148 PCT/US00/01537	1/21/00	Pyroglutamic Acid Derivatives Which Inhibit Leukocyte Adhesion Mediated by VLA-4
Elan #230	AR P 00 01 00287 BR0007663-5 CA2359113	1/21/00	Compounds Which Inhibit Leukocyte Adhesion Mediated By VLA-4

Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
	CL140-2000 CL141-2000 CN00804498.8 CZ2001-2361 GB1144384 HK02106386.7 HU PO201213 IE1144384 IN2001/00984/CHE JP2000-594785 KR0711840 NZ512563 PH01-2000-00160 PH1-2000-00159 PK140939 PK48/2000 PL P-350050 RU006301 SG200104173-0 US7,005,433 USSN60/116,923 USSN60/117,760 USSN60/160,999 USSN60/168,188 VE2000-000163 PCT/US00/01686 PCT/US00/01540		
Elan #231	AR P000100266 AU769741 CA2359112 CL128-2000 CN00802933.4 EP00903379.6 HK02105462.6 IL143928 JP2000-594787 MX223926 NZ528904 NZ512565 PH01-2000-00158 PK0045/2000 TW NI-203589 US7,452,912 US6,545,003 USSN60/116,967 USSN60/117,742 VE0151-2000 PCT/US00/001536 ZA2001/5312	1/21/00	Fused Ring Heteroaryl And Heterocyclic Compounds Which Inhibit Leukocyte Adhesion Mediated By VLA-4

Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
Elan #232	AR P 00 01 00267 CA2357781 CL129-2000 CN ZL 00802942.3 EP1144364 HK02106864.8 JP2000-594772 MX223490 PH01-2000-00161 PK46/2000 TW89100996 USSN11/285,889 USSN60/116,735 USSN60/117,743 VE2000-000149 PCT/US00/01604	1/21/00	Multicyclic Compounds Which Inhibit Leukocyte Adhesion Mediated By VLA-4
Elan #235	CA2361162 DE600 090883 T2 EP1161416 FR1161416 GB1161416 IE1161416 JP2000-602202 US6,545,160 US6,410,781 USSN60/122,071 PCT/US00/04960	2/28/00	Alpha-Aminoacetic Acid Derivatives-Alpha 4 Beta 7 Receptor Antagonists
Elan #296	US7,291,645 US6,689,781 USSN60/220,134 PCT/US01/23073	7/20/01	Phenylalanine Derivatives As Alpha 4 Integrin Inhibitors
Elan #298	US7,015,216 USSN60/220,128 PCT/US01/23096	7/20/01	Heteroaryl-Beta-Alanine Derivatives As Alpha 4 Integrin Inhibitors
Elan #301	US6,803,370 USSN60/220,132 PCT/US01/23075	7/20/01	Alpha Amino Acid Derivatives-Inhibitors of Leukocyte Adhesion Mediated By VLA-4
Elan #302	US7,223,762 USSN60/220,118 PCT/US01/23071	7/20/01	Beta-Amino Acid Derivatives-Inhibitors of Leukocyte Adhesion Mediated by VLA-4
Elan #332	US7,365,073 USSN11/873,358 US6,794,506 USSN60/220,131 PCT/US01/23097	7/20/01	3-(HETEROARYL) ALANINE DERIVATIVES-INHIBITORS OF LEUKOCYTE ADHESION MEDIATED BY VLA-4
Elan #425	AM008256 AZ008256 BY008256 EA008256 KG008256	5/27/03	Heterocyclic Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4

Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
	KZ008256 MD008256 RU008256 TJ008256 TM008256 UA76339 USSN60/383,020 VN6926 PCT/US03/16804		
Elan #426	AE N/A AM 008180 AR P 03 01 04211 AU2003237302 AZ008180 BRPI0309619-0 BY008180 CA2480756 CN ZL 03811258.2 CO28.687 DE603 21 109.7-08 EA008180 EC N/A EG PCT 121/2004 EP1507533 FR1507533 GB1507533 HK05107272.9 ID W00200402608 IE1507533 IL164323 IN218545 JP4413135 KG008180 KR2004-7018326 KZ008180 MD008180 MX248950 NO20045276 NZ535723 PH1-2004-501540 RU008180 SG107515 TJ008180 TM008180 TW092114184 US7,008,949 US7,335,663 USSN60/383,244 VN6260 PCT/US03/17150	5/27/03	Heteroaryl Compounds Which Inhibit Leukocyte Adhesion Mediated by VLA-4

Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
	ZA2004/7944		
Elan #475	AR P 04 01 02253 AU2004251750 AU2004251754 CA2529873 CA2528723 CL1621-2004 EP04777033.4 EP04777008.6 GC GCC/P/2004/3679 HK06 110 596.1 HK06 110 595.2 JP2006-517610 JP2006-517618 MV PI 20042529 NZ578486 NZ578487 NZ544367 NZ544057 PE623,2004 PK0472/04 TH091878 TW093118691 USSN10/875,469 USSN60/482,211 UV28391 VE2004-001035 PCT/US04/020280 PCT/US04/020240	6/25/04	Treating rheumatoid arthritis with small molecules and anti-VLA4
Elan #516	EP05779918.1 USSN60/566,784 PCT/US05/014885	4/29/05	PYRIMIDINE HYDANTOIN ANALOGUES WHICH INHIBIT LEUKOCYTE ADHESION MEDIATED BY VLA-4
Elan #518	USSN60/586,975	7/8/05	MULTIMERIC VLA-4 ANTAGONISTS COMPRISING POLYMER MOIETIES
Elan #550	KR10-2007-7029811 USSN60/683,509 PCT/US2006/019708	5/22/06	IMIDAZOLONE PHENYLALANINE DERIVATIVES
Elan #521	CA2554188 EP05712086.7 JP2006-551442	1/24/05	POLYETHYLENE GLYCOL CONJUGATES OF DIPEPTIDES
Elan #512	USSN60/538,573 PCT/US2005/002478	1/24/05	POLYETHYLENE GLYCOL CONJUGATES OF DIPEPTIDE
Elan #558	USSN60/697,726 PCT/US2006/026292	7/7/06	PREPARATION OF POLYMER CONJUGATES OF THERAPEUTIC, AGRICULTURAL, AND FOOD ADDITIVE COMPOUNDS
Elan #564	AU2006297180 CN200680035707.X HK08112826.7 MX MX/a/2008/004136	9/28/06	CARBAMATE COMPOUNDS WHICH INHIBIT LEUKOCYTE ADHESION MEDIATED BY VLA-4

Docket Number	Patent/App. Nos	PCT filing date	Subject Matter
	NZ567296 PCT/US2006/38113 USSN60/722,355		
Elan #565	CO08030304 EP N/A HK08113271.5 USSN60/722,358 PCT/US2006/038009	9/28/06	PYRIMIDINYL AMIDE COMPOUNDS WHICH INHIBIT LEUKOCYTE ADHESION MEDIATED BY VLA-4
Elan #575	USSN60/777,797 PCT/US2007/004923	2/28/07	JCV Dx
Elan #576	CO08.096.101 EG PCT 1394/2008 USSN60/777,595 PCT/US2007/062824	2/26/07	PYRIMIDINYL SULFONAMIDE COMPOUNDS WHICH INHIBIT LEUKOCYTE ADHESION MEDIATED BY VLA-4
Elan #581	AU2007253717 BR PI0712013-3 CA2651500 CN200780027810.4 CO08.135.138 EA200870561 EP07762290.0 HK09108218.0 ID W-00200803766 IL195147 IN4581/KOLNP/2008 JP2009-512263 KR10-2008-7030834 MX MX/a/2008/014520 NO20085310 NZ572816 PH1-2008-502500 SG2008 084668-3 TW096618233 USSN60/802,349 PCT/US2007/069464 ZA2010/08198 ZA2008/09564	5/22/07	PREPARATION OF POLYMER CONJUGATES OF THERAPEUTIC, AGRICULTURAL, AND FOOD ADDITIVE COMPOUNDS
Elan #630	USSN60/996,846 PCT/US2008/013459	12/5/08	METHODS AND COMPOSITIONS FOR TREATING LIQUID TUMORS
Elan #652	USSN61/172,876 PCT/US2010/032632	4/27/10	PYRIDINONE ANTAGONISTS OF ALPHA-4 INTEGRINS
Elan #659	USSN61/516,845 USSN61/330,122 USSN61/392,288 WO PCT/US2011/034721	5/2/11	CNS trafficking