



Intellectual Property Quality Enforcement Analysis

Eli Lilly and Company

April 26, 2018

Since the commencement of China's accession process into the World Trade Organization in the late 1990s, several U.S. companies have encouraged the government of the United States to recite sweeping allegations of the "theft" of intellectual property by the Chinese. Having spent considerable time in China since 1999, we have personally witnessed several instances of misappropriated products on **copyrighted** and **trademarked** goods and services. And while there are well-documented instances in which Chinese individuals, firms, and agencies of government have accessed corporate secrets, the allegation of general IP theft and misappropriation is reckless. In the case of Eli Lilly and Company in particular, the firm was involved in an embarrassing incident in 2013-2014, in which two Eli Lilly scientists were arrested and charged with passing trade secrets to China, only to have the US Attorney in the case drop all charges when it was proved that no improper disclosures were made.

Since the 1980s, many U.S. and European firms have sold intellectual property to the Chinese as part of commercial sales. While they failed to disclose these sales with any precision in shareholder filings, the allegation that IP was stolen, appropriated or transferred under duress is false. If a firm makes an economic decision in which it exchanges technology for revenue, that's its own decision. If China makes such sale conditions a requisite component of approved transactions, the foreign firm and its shareholders need to weigh the short-term economic value of the transaction against the long-term consequence of releasing certain rights.

Of greater concern is the wholly falsifiable "presumption of validity" which has shrouded gross abuses of the patent systems in the U.S., Europe and Japan. Upon review, most issued patents are held invalid in part or in whole whether that review happens within the Patent Trial Appeals Board (PTAB) or in the U.S. Court of Appeals for the Federal Circuit (CAFC). Consistent with M-CAM CEO Dr. David E. Martin's testimony to the United States House Judiciary Committee in 2001¹, two thirds of patents' claims subjected to a second review are modified or rejected². It is therefore wholly illogical to presume that China is "stealing" what in the majority of cases should never have been granted **by the United States' own rules**.

In the interest of a more complete conversation about U.S. innovation, M-CAM has conducted a commercial fitness review of the patents held by Eli Lilly. The information provided represents patents which were available for review at the time the patent rights were granted to Eli Lilly but, for a variety of reasons, were not explicitly included in the United States Patent and Trademark Office's review of patentability. As patentable distinction was not considered for each of the "precedent" innovations, China or any other competitor or country may elect to develop commercial products or services based on the information contained in these precedent disclosures.

¹ http://commdocs.house.gov/committees/judiciary/hju72305.000/hju72305_of.htm

² https://www.morganlewis.com/~media/files/publication/presentation/speech/smyth_uspatentininvalidity_sept12

Analysis

The table below presents selected **Eli Lilly patents** and **commercial alternatives** for each.

Patent Number	Patent Title
US7749992	Compounds and methods for treating dislipidemia
US6489478	4-amino substituted-2-substituted-1,2,3,4-tetrahydroquinolines
US6763607	Method for making homogeneous spray-dried solid amorphous drug dispersions utilizing modified spray-drying apparatus
US6600045	Methods for preparing CETP inhibitors
US6395751	4-carboxyamino-2-methyl-1,2,3,4,-tetrahydroquinolines
US6310075	Annulated 4-carboxyamino-2-methyl-1,2,3,4-tetrahydroquinolines
US5753644	Vasopressin antagonist and oxytocin antagonist
US7745583	Anti-myostatin antibodies
US7399848	Polynucleotides encoding growth differentiation factor-8
US7393682	Polynucleotides encoding promyostatin polypeptides
US7070784	Method for down-regulating GDF-8 activity using immunogenic GDF-8 analogues
US6607884	Methods of detecting growth differentiation factor-8
US6465239	Growth differentiation factor-8 nucleic acid and polypeptides from aquatic species and non-human transgenic aquatic species
US20040055027	Growth differentiation factor-8
US7728109	Antagonistic anti-hTNFSF13b human antibodies
EP0869180A1	A TNF homologue, TL5
EP0869180	A TNF homologue, TL5
WO9911791A2	TUMOR NECROSIS FACTOR FAMILY RECEPTORS AND LIGANDS, ENCODING NUCLEIC ACIDS AND RELATED BINDING AGENTS
WO9911791	TUMOR NECROSIS FACTOR FAMILY RECEPTORS AND LIGANDS, ENCODING NUCLEIC ACIDS AND RELATED BINDING AGENTS
WO9855621	NTN2 MEMBER OF TNF LIGAND FAMILY
WO9855620	NTN2 MEMBER OF TNF LIGAND FAMILY
WO200068378A1	TALL-1 NUCLEIC ACID MOLECULES, PROTEINS, RECEPTORS AND METHODS OF USE THEREOF
WO200068378	TALL-1 NUCLEIC ACID MOLECULES, PROTEINS, RECEPTORS AND METHODS OF USE THEREOF
WO200067034A1	METHODS OF USE OF THE TACI/TACI-L INTERACTION
WO200040716A2	SOLUBLE RECEPTOR BR43x2 AND METHODS OF USING
US7704238	Medication injector apparatus with drive assembly that facilitates reset
US6383167	Injection device
US6096010	Repeat-dose medication delivery pen

US6086567	Injection device
US6068615	Inductance-based dose measurement in syringes
US6004297	Injection syringe
US5921966	Medication delivery pen having an improved clutch assembly
US5725508	Quick connect medication delivery pen
US5679111	Device for dosing a liquid preparation
US5611783	Pen-shaped syringe
US5599314	Syringe with incrementally actuated plunger
US7704237	Medication dispensing apparatus configured for rotate to prime and pull/push to inject functionality
US6004297	Injection syringe
US5938642	Multiple dose medication dispensing device
US5743889	Incrementing dosage mechanism for syringe
US5728074	Pen-type injector with a microprocessor and blood characteristic monitor
US5725508	Quick connect medication delivery pen
US5679111	Device for dosing a liquid preparation
US5658259	Dental cartridge assembly auto-injector with protective needle cover
US5626566	Large dose pen
US5584815	Multi-cartridge medication injection device
US5540664	Reloadable automatic or manual emergency injection system
US7632499	Anti-myostatin antibodies
US6607884	Methods of detecting growth differentiation factor-8
US6465239	Growth differentiation factor-8 nucleic acid and polypeptides from aquatic species and non-human transgenic aquatic species
US20040055027	Growth differentiation factor-8
US7541344	Modulation of survivin expression
US5677437	Heteroatomic oligonucleoside linkages
US5602240	Backbone modified oligonucleotide analogs
US5541307	Backbone modified oligonucleotide analogs and solid phase synthesis thereof
US5519134	Pyrrolidine-containing monomers and oligomers
US5470967	Oligonucleotide analogs with sulfamate linkages
US5453496	Polynucleotide phosphorodithioate
US5286717	Inhibitors for replication of retroviruses and for the expression of oncogene products
US5276019	Inhibitors for replication of retroviruses and for the expression of oncogene products
US20030143732	RNA interference mediated inhibition of adenosine A1 receptor (ADORA1) gene expression using short interfering RNA

US7427275	Medication dispensing apparatus with triple screw threads for mechanical advantage
US7112187	Injecting device
US7104972	Injection device with a dose setting limiter
US6945961	Injection device
US6899699	Automatic injection device with reset feature
US6899698	One-way clutch mechanisms and injector devices
US6893415	Medication delivery device
US6716198	Injection device
US6699224	Device for administering an injectable product
US6692472	Injection device, a preassembled dose setting and injection mechanism for an injection device, and a method of assembling an injection device
US6562011	Medication delivery device
US7414132	Opioid receptor antagonists
WO200206276	BETA3 ADRENERGIC AGONISTS
US7399774	6-substituted nicotinamide derivatives as opioid receptor antagonists
US6436959	4-[aryl(piperidin-4-yl)]aminobenzamides
EP0921120	Selective beta 3 adrenergic agonists
US7320790	Humanized antibodies
US5859205	Humanised antibodies
US7678084	Medication dispensing apparatus with gear set for mechanical advantage
US6383167	Injection device
US6302869	Syringe having a flexible piston rod
US6221053	Multi-featured medication delivery pen
US6086567	Injection device
US6004297	Injection syringe
US5584815	Multi-cartridge medication injection device
US5514097	Self administered injection pen apparatus and method
US5505704	Manifold medication injection apparatus and method
US5370629	Injection device
US5279586	Reusable medication delivery pen
US7635760	Anti-myostatin antibodies
US6607884	Methods of detecting growth differentiation factor-8
US6465239	Growth differentiation factor-8 nucleic acid and polypeptides from aquatic species and non-human transgenic aquatic species
US20040055027	Growth differentiation factor-8
US7317089	Antagonistic anti-hTNFSF13b human antibodies

EP0921194A2	TRAILLK-2: a member of the TNF ligand family
EP0921194	TRAILLK-2: a member of the TNF ligand family
EP0869180A1	A TNF homologue, TL5
EP0869180	A TNF homologue, TL5
WO9933980	MEMBERS OF TNF AND TNFR FAMILIES
WO9911791A2	TUMOR NECROSIS FACTOR FAMILY RECEPTORS AND LIGANDS, ENCODING NUCLEIC ACIDS AND RELATED BINDING AGENTS
WO9911791	TUMOR NECROSIS FACTOR FAMILY RECEPTORS AND LIGANDS, ENCODING NUCLEIC ACIDS AND RELATED BINDING AGENTS
WO9855621	NTN2 MEMBER OF TNF LIGAND FAMILY
WO9855620	NTN2 MEMBER OF TNF LIGAND FAMILY
WO200068378A1	TALL-1 NUCLEIC ACID MOLECULES, PROTEINS, RECEPTORS AND METHODS OF USE THEREOF
US7303764	2-methyl-thieno-benzodiazepine formulation
WO2003037903	OLANZAPINE DIHYDRATE-II A PROCESS FOR ITS PREPARATION AND USE THEREOF
US7291132	Medication dispensing apparatus with triple screw threads for mechanical advantage
US6716198	Injection device
US6699224	Device for administering an injectable product
US6692472	Injection device, a preassembled dose setting and injection mechanism for an injection device, and a method of assembling an injection device
US6569126	Cylinder ampoule
US6562011	Medication delivery device
US6547764	Double pointed injection needle
US6514230	Air shot mechanism for electronic injection devices
US6287283	Apparatus for the registration of the setting of a medical device
US6241709	Injection device
US6228067	Injection device
US7271149	GLP-1 fusion proteins
US5116964	Hybrid immunoglobulins
WO9966054	ERYTHROPOIETIN ANALOG-HUMAN SERUM ALBUMIN FUSION
WO9315200	ANTITHROMBOTIC POLYPEPTIDES AS ANTAGONISTS OF THE BINDING OF VWF TO PLATELETS OR TO SUBENDOTHELIUM
WO9315199A1	NOVEL BIOLOGICALLY ACTIVE POLYPEPTIDES, PREPARATION THEREOF AND PHARMACEUTICAL COMPOSITION CONTAINING SAID POLYPEPTIDES
WO9315199	NOVEL BIOLOGICALLY ACTIVE POLYPEPTIDES, PREPARATION THEREOF AND PHARMACEUTICAL COMPOSITION CONTAINING SAID POLYPEPTIDES
WO200177137A1	ALBUMIN FUSION PROTEINS
WO200177137	ALBUMIN FUSION PROTEINS
US7259233	Chronic treatment regimen using glucagon-like insulinotropic peptides
US6006753	Use of GLP-1 or analogs to abolish catabolic changes after surgery

US20010047084	Extendin derivatives
WO9808871	GLP1 DERIVATIVES
US7238663	Pre-mixes of GLP-1 and basal insulin
US5614492	Insulinotropic hormone GLP-1 (7-36) and uses thereof
US5597796	Transdermal insulin
EP0708179A2	Glucagon-like insulinotropic peptide analogs, compositions, and methods of use
WO9808873	USE OF GLUCAGONLIKE PEPTIDE1 GLP1 OR ANALOGS TO ABOLISH CATABOLIC CHANGES AFTER SURGERY
WO9808871	GLP1 DERIVATIVES
US7223728	Synergistic use of thiazolidinediones with glucagon-like peptide-1 and agonists thereof to treat metabolic instability associated with non-insulin dependent diabetes
WO9808871	GLP1 DERIVATIVES
US7204981	Methods of treating diseases with activated protein C
US5084274	Inhibition of arterial thrombotic occlusion or thromboembolism
US4959318	Expression of protein C
US7195623	Kit including side firing syringe needle for preparing a drug in an injection pen cartridge
US6019750	Sliding reconstitution device with seal
US5807323	Mixing and delivery syringe assembly
US5791466	Medicament conversion system
US5709666	Syringe
US5554128	Syringe and vial connector
US5554125	Prefilled vial syringe
US5549575	Cartridge retainer assembly for medication delivery pen
US5496293	Advancing mechanism for an injection device
US5470327	Pointed adapter for blunt entry device
US5445631	Fluid delivery system
US7195616	Medication injector apparatus with drive assembly that facilitates reset
US6068615	Inductance-based dose measurement in syringes
US6004297	Injection syringe
US5921966	Medication delivery pen having an improved clutch assembly
US5725508	Quick connect medication delivery pen
US5679111	Device for dosing a liquid preparation
US5611783	Pen-shaped syringe
US5599314	Syringe with incrementally actuated plunger
US5591136	Injection device
US5540664	Reloadable automatic or manual emergency injection system

US5514097	Self administered injection pen apparatus and method
US7144861	Stabilized teriparatide solutions
US4833125	Method of increasing bone mass
WO9714429	STABLE PHARMACEUTICAL FORMS OF ADMINISTRATION CONTAINING
US7101843	Glucagon-like peptide-1 analogs
US5977071	Glucagon-like insulinotropic peptides, compositions and methods
EP0658568	Glucagon-like insulinotropic peptides, compositions and methods.
WO9531214	TREATMENT OF DIABETES
WO9318785	NOVEL MEDICAMENT
US7084243	Glucagon-like peptide-1 analogs
US5705483	Glucagon-like insulinotropic peptides, compositions and methods
EP0658568	Glucagon-like insulinotropic peptides, compositions and methods.
WO9808871	GLP1 DERIVATIVES
US6191102	Use of GLP-1 analogs and derivatives administered peripherally in regulation of obesity
US6162907	DNA encoding insulinotropic hormone
US6133235	Glucagon-like insulinotropic peptides compositions and methods
US6006753	Use of GLP-1 or analogs to abolish catabolic changes after surgery
US5981488	Glucagon-like peptide-1 analogs
US5958909	Insulinotropic hormones and uses thereof
US5631224	Use of a peptide
US7041637	Echinocandin/carbohydrate complexes
WO9631228A1	CYCLIC PEPTIDE ANTIFUNGAL AGENTS
WO9425048A1	CYCLOHEXAPEPTIDYL AMINE COMPOUNDS
US5854212	Cyclohexapeptidyl bisamine compound, compositions containing said compound and methods of use
US5514651	Aza cyclohexapeptide compounds
US5348730	Method for preparing medicinal aerosol formulation containing coated medicament
US5049546	Antibiotic agents
US5021403	Antibiotic agents
US4968608	Process for antifungal fermentation product
US4931352	Antifungal fermentation product
US4322338	Derivatives of A-30912B nucleus
US6977077	Method of increasing bone toughness and stiffness and reducing fractures
WO9401460	ANALOGS OF PTH AND PTHRP, THEIR SYNTHESIS AND USE FOR THE TREATMENT OF OSTEOPOROSIS
US5874086	Synthesis and use for the treatment of osteoporosis

US5840837	Analog of parathyroid hormone and parathyroid hormone relate peptide synthesis and use for the treatment of osteoporosis
US5814607	Pulmonary delivery of active fragments of parathyroid hormone
US5807823	Analog of parathyroid hormone and parathyroid hormone related peptide: synthesis and use for the treatment of osteoporosis
US5798225	Process for recombinant production of PTH and PTHrp analogs
US5703207	Protein active in humoral hypercalcemia of malignancy-PTHrP
US5695955	Analog of parathyroid hormone and parathyroid hormone related peptide: synthesis and use for the treatment of osteoporosis
US5693616	Analog of parathyroid hormone and parathyroid hormone related peptide: synthesis and use for the treatment of osteoporosis
US5688760	Polypeptides having bone resorption inhibitory activity comprising PTHrP-derived sequences
US6960564	Echinocandin pharmaceutical formulations containing micelle-forming surfactants
US5376634	Polypeptide compound and a process for preparation thereof
EP0525889A1	Process for phosphate ester compounds of certain cyclohexapeptides.
EP0525889	Process for phosphate ester compounds of certain cyclohexapeptides.
EP0503960A1	Cyclic lipopeptides having antibiotic activity.
EP0503960	Cyclic lipopeptides having antibiotic activity.
EP0486011A2	Pharmaceutical composition against Pneumocystis carinii.
EP0486011	Pharmaceutical composition against Pneumocystis carinii.
GB2241956A	N-acylated cyclohexapeptide compounds
GB2241956	N-acylated cyclohexapeptide compounds
US5854212	Cyclohexapeptidyl bisamine compound, compositions containing said compound and methods of use
US6930120	Oxazolyl-arylproplonic acid derivatives and their use as ppar agonists
EP0930299A1	PROPIONIC ACID DERIVATIVES AND APPLICATIONS THEREOF
EP0930299	PROPIONIC ACID DERIVATIVES AND APPLICATIONS THEREOF
US6906028	Stable insulin formulations
US6443942	Medication device with protein stabilizing surface coating
US6221633	Insulin derivatives having a rapid onset of action
US6221378	Mixed micellar delivery system and method of preparation
US6174856	Stabilized insulin compositions
US5970973	Method of delivering insulin lispro
US5888477	Use of monomeric insulin as a means for improving the bioavailability of inhaled insulin
US5873358	Method of maintaining a diabetic patient's blood glucose level in a desired range
US5747642	Monomeric insulin analog formulations
US5547930	Asp.sup.B28 insulin crystals
US5504188	Preparation of stable zinc insulin analog crystals

US6894064	Benzothiophenes, formulations containing same, and methods
US6653328	3-benzyl-benzothiophenes
US6479517	Phosphorous-containing benzothiophenes
US6458811	Benzothiophenes formulations containing same and methods
US6417199	3-benzyl-benzothiophenes
US6103740	Methods for lowering platelet counts
US5998443	Phosphorous containing benzothiophenes for treating estrogen deficiency
US5972383	Solid orally administerable raloxifene hydrochloride pharmaceutical formulation
US5821254	Uses of 9-cis-retinoic acids and derivatives thereof alone or in combination with antineoplastic agents in the prevention or treatment of cancer
US5731342	Benzothiophenes, formulations containing same, and methods
US5731327	Synthesis of 3-4-(2-aminoethoxy)benzoyl-2-aryl-6-hydroxybenzo[b]thiophenes
US6797719	Benzothiophenes, formulations containing same, and methods
US4380635	Synthesis of acylated benzothiophenes
US5972383	Solid orally administerable raloxifene hydrochloride pharmaceutical formulation
US5731342	Benzothiophenes, formulations containing same, and methods
US5731327	Synthesis of 3-4-(2-aminoethoxy)benzoyl-2-aryl-6-hydroxybenzo[b]thiophenes
US5641790	Methods of use for inhibiting bone loss and lowering serum cholesterol
US5510370	Parathyroid hormone and raloxifene for increasing bone mass
US5470854	2-phenylbenzo[B]furans, process for their manufacture and pharmaceutical preparations containing them
US5464845	Methods for lowering serum cholesterol
US5462950	Methods of treating menstrual symptoms and compositions therefore
US5461064	Methods of inhibiting atrophy of the skin and vagina
US6747006	Use of GLP-1 or analogs in treatment of myocardial infarction
US6133235	Glucagon-like insulinotropic peptides compositions and methods
US6048724	Method of producing clonal cell strains which express exogenous DNA encoding glucagon-like peptide 1
US5977071	Glucagon-like insulinotropic peptides, compositions and methods
US5958909	Insulinotropic hormones and uses thereof
US5863555	Buccal delivery of glucagon-like insulinotropic peptides
US5849322	Compositions and methods for buccal delivery of pharmaceutical agents
US5766620	Buccal delivery of glucagon-like insulinotropic peptides
US5705483	Glucagon-like insulinotropic peptides, compositions and methods
EP0869135A1	Glucagon-like peptide-1 analogs
EP0658568A1	Glucagon-like insulinotropic peptides, compositions and methods.
US6743777	Cyclic peptide antifungal agents and process for preparation thereof

WO9425048	CYCLOHEXAPEPTIDYL AMINE COMPOUNDS
US6107458	Cyclic hexapeptides having antibiotic activity
US6043341	Cyclic peptide antifungal agents
US5932543	Cyclic peptide antifungal agents and process for preparation thereof
US5516756	Aza cyclohexapeptide compounds
US5378804	Aza cyclohexapeptide compounds
US5049546	Antibiotic agents
US5021403	Antibiotic agents
US4320052	Derivatives of A-30912A nucleus
US4299763	A-30912B Nucleus
US6689780	Heteroroaromatic amides as inhibitor of factor Xa
WO200039117A1	HETEROROAROMATIC AMIDES AS INHIBITOR OF FACTOR Xa
WO200039117	HETEROROAROMATIC AMIDES AS INHIBITOR OF FACTOR Xa
WO200027820A1	N-ARYL(THIO)ANTHRANILIC ACID AMIDE DERIVATIVES, THEIR PREPARATION AND THEIR USE AS VEGF RECEPTOR TYROSINE KINASE INHIBITORS
WO200027820	N-ARYL(THIO)ANTHRANILIC ACID AMIDE DERIVATIVES, THEIR PREPARATION AND THEIR USE AS VEGF RECEPTOR TYROSINE KINASE INHIBITORS
US6670324	Cyclic peptide antifungal agents
US5376634	Polypeptide compound and a process for preparation thereof
US5166135	Method for the control of pneumocystis carinii
US4320052	Derivatives of A-30912A nucleus
US4293489	Derivatives of A-30912A nucleus
US6043341	Cyclic peptide antifungal agents
US5786325	Cyclic peptide antifungal agents and methods of making and using
US5741775	Cyclohexapeptidyl aminoalkyl ethers
US5652213	Cyclic peptide antifungal agents
US5629290	Cyclic peptide antifungal agents
US5541160	Antifungal and anti-pneumocystis compounds, compositions containing such compounds, and methods of use
US6666849	Dose setting device for medical injectors
US5728074	Pen-type injector with a microprocessor and blood characteristic monitor
US5626566	Large dose pen
US5593390	Medication delivery device with a microprocessor and characteristic monitor
US5582598	Medication delivery pen with variable increment dose scale
US5514097	Self administered injection pen apparatus and method
US5383865	Medication dispensing device
US5378233	Selected dose pharmaceutical dispenser

US5295976	Dose indicating injection pen
EP0373321	Reusable injection device for the delivery of a preselected dose.
US6106501	Injection device
US6664237	Oral treatment of companion animals with ectoparasitidal spinosyns
WO9420518	NEW A83543 COMPOUNDS AND PROCESS FOR PRODUCTION THEREOF
WO9309126A1	NEW A83543 COMPOUNDS AND PROCESS FOR PRODUCTION THEREOF
WO9309126	NEW A83543 COMPOUNDS AND PROCESS FOR PRODUCTION THEREOF
US5539089	A83543 aglycones and pseudoglycones
WO9823158	INSECTICIDAL COMPOSITIONS AND METHODS
WO200111963	ORAL TREATMENT OF COMPANION ANIMALS WITH ECTOPARASITICIDAL SPINOSYNS
WO200111962	TOPICAL TREATMENT FOR INSECT PESTS IN COMPANION ANIMALS
US6660716	Method for treating non-insulin dependent diabetes using thiazolidinediones with glucagon-like peptide-1 and agonists thereof
WO9808871	GLP1 DERIVATIVES
US6191102	Use of GLP-1 analogs and derivatives administered peripherally in regulation of obesity
US6006753	Use of GLP-1 or analogs to abolish catabolic changes after surgery
US5912229	Use of a pharmaceutical composition comprising an appetite-suppressing peptide
US5846937	Method of using exendin and GLP-1 to affect the central nervous system
US5614492	Insulinotropic hormone GLP-1 (7-36) and uses thereof
US5424286	Exendin-3 and exendin-4 polypeptides, and pharmaceutical compositions comprising same
US5120712	Insulinotropic hormone
US5118666	Insulinotropic hormone
US6630137	Activated protein C formulations
US5084274	Inhibition of arterial thrombotic occlusion or thromboembolism
US5009889	Treatment of dysfunctional vascular endothelium using activated protein C
US4959318	Expression of protein C
US6037322	Methods for treating vascular disorders using activated protein C
US5879919	Method of using eukaryotic expression vectors comprising the BK virus enhancer
US5858704	Method of using eukaryotic expression vectors comprising the BK virus enhancer
US5770397	Method of using eukaryotic expression vectors comprising the BK virus enhancer
US5766921	Hybrid protein C
US5716645	Topical fibrinogen complex
US5681932	Method of using eukaryotic expression vectors comprising the BK virus
US6590073	Formation and anion-exchange of crystalline echinocandin ammonium salts
US5786325	Cyclic peptide antifungal agents and methods of making and using

US5021403	Antibiotic agents
EP0757058A1	Cyclic peptide anti-fungal agents
EP0757058	Cyclic peptide anti-fungal agents
EP0744405A2	Cyclic peptide antifungal agents
EP0525889	Process for phosphate ester compounds of certain cyclohexapeptides.
EP0503960	Cyclic lipopeptides having antibiotic activity.
EP0486011	Pharmaceutical composition against Pneumocystis carinii.
GB2241956	N-acylated cyclohexapeptide compounds
US6107458	Cyclic hexapeptides having antibiotic activity
US6583111	Use of GLP-1 analogs and derivative administered peripherally in regulation of obesity
EP0619322A2	Prolonged delivery of insulinotropin (GLP-1)
US6051551	Method for administering acylated insulin
US6048724	Method of producing clonal cell strains which express exogenous DNA encoding glucagon-like peptide 1
US5977071	Glucagon-like insulinotropic peptides, compositions and methods
US5849322	Compositions and methods for buccal delivery of pharmaceutical agents
US5846937	Method of using exendin and GLP-1 to affect the central nervous system
US5705483	Glucagon-like insulinotropic peptides, compositions and methods
WO9943708	GLP1 DERIVATIVES OF GLP1 AND EXENDIN WITH PROTRACTED PROFILE OF ACTION
EP0869135	Glucagon-like peptide-1 analogs
WO9947161	HUMAN APPETITE CONTROL BY GLUCAGON-LIKE PEPTIDE RECEPTOR BINDING COMPOUNDS
US6555521	Glucagon-like peptide-1 crystals
US5614492	Insulinotropic hormone GLP-1 (7-36) and uses thereof
EP0733644A1	Glucagon-like insulinotropic complexes, compositions and methods
EP0708179A2	Glucagon-like insulinotropic peptide analogs, compositions, and methods of use
WO9531214	TREATMENT OF DIABETES
WO9517510	A METHOD OF PRODUCING GLUCAGONLIKE PEPTIDE 1
US6303661	Use of dipeptidyl peptidase IV effectors for lowering the blood glucose level in mammals
US6268343	Derivatives of GLP-1 analogs
US6162907	DNA encoding insulinotropic hormone
US6133235	Glucagon-like insulinotropic peptides compositions and methods
US6037143	Enzymatic method for modification of recombinant polypeptides
US6551992	Stable insulin formulations
US5952297	Monomeric insulin analog formulations
US5952008	Processes for preparing compositions for inhalation

US5922675	Acylated Insulin Analogs
US5747642	Monomeric insulin analog formulations
US5700904	Preparation of an acylated protein powder
US5693609	Acylated insulin analogs
US5650486	Monomeric insulin analog formulations
US5646242	Selective acylation of epsilon-amino groups
US5631347	Reducing gelation of a fatty acid-acylated protein
US5597893	Preparation of stable insulin analog crystals
US6541668	Methods for preparing 3-aryloxy-3-arylpropylamines and intermediates thereof
US5910319	Fluoxetine enteric pellets and methods for their preparation and use
US5508276	Duloxetine enteric pellets
US5023269	3-aryloxy-3-substituted propanamines
US4194009	Aryloxyphenylpropylamines for obtaining a psychotropic effect
EP0193405	RACEMIZATION PROCESS
WO9400416	PREPARATION OF N-METHYL-3-PHENYL-3-[4-(TRIFLUOROMETHYL)PHENOXY]PROPYLAMINE AND ACID ADDITION SALTS THEREOF
WO200064855	EPIMERIZATION REACTION FOR THE PRODUCTION OF R-FLUOXETINE
WO200061540	METHODS FOR PREPARING 3-ARYLOXY-3-ARYLPROPYLAMINES AND INTERMEDIATES THEREOF
WO200058262	STEREOSPECIFIC METHOD FOR PREPARING TOMOXETINE AND INTERMEDIATES THEREOF
US6436397	Activated protein C formulations
US5084274	Inhibition of arterial thrombotic occlusion or thromboembolism
US5009889	Treatment of dysfunctional vascular endothelium using activated protein C
US4959318	Expression of protein C
EP0445939	A modified transcription control unit and uses thereof
US6426071	Methods for treating vascular disorders
US5478558	Method of dissolving venous Thrombi using drug containing activated Protein C
US6395270	Activated protein C formulations
US5084274	Inhibition of arterial thrombotic occlusion or thromboembolism
US5009889	Treatment of dysfunctional vascular endothelium using activated protein C
US4959318	Expression of protein C
US6380357	Glucagon-like peptide-1 crystals
EP0733644A1	Glucagon-like insulinotropic complexes, compositions and methods
EP0708179A2	Glucagon-like insulinotropic peptide analogs, compositions, and methods of use
WO9531214	TREATMENT OF DIABETES
US6342482	Formulations for controlling human lice

US5362634	Process for producing A83543 compounds
US5227295	Process for isolating A83543 and its components
US6303634	Methods of preventing breast cancer
US5532254	Modulation of calcium channels using benzothiophenes
US5494929	Methods of inhibiting growth hormone effects
US5393763	Methods for inhibiting bone loss
US6273260	Pharmaceutical packaging system
US4254871	Packaging element
US3494322	PILL DISPENSING MEANS
USRE35445	Packaging system for medication
US6268335	Insoluble insulin compositions
US5559094	Asp.sup.B1 insulin analogs
US5028587	Mixed crystals of insulin and insulin derivatives
US5008241	Novel insulin peptides
US4946828	Novel insulin peptides
WO9200321	NOVEL, PROTRACTED INSULIN ANALOGUES
WO8910937	INSULIN ANALOGUES
US6265581	Selective β_3 adrenergic agonists
EP0543662A2	Aromatic amino-alcohol derivatives having anti-diabetic and anti-obesity properties, their preparation and their therapeutic uses.
EP0543662	Aromatic amino-alcohol derivatives having anti-diabetic and anti-obesity properties, their preparation and their therapeutic uses
WO9000548A2	DERIVATIZED ALKANOLAMINES AS CARDIOVASCULAR AGENTS
WO9000548	DERIVATIZED ALKANOLAMINES AS CARDIOVASCULAR AGENTS
US6156734	Methods for treating hypercoagulable states or acquired protein C deficiency
US5084274	Inhibition of arterial thrombotic occlusion or thromboembolism
US6133235	Glucagon-like insulintropic peptides compositions and methods
WO9318785	NOVEL MEDICAMENT
US6063771	Formulations for controlling human lice
US5362634	Process for producing A83543 compounds
US5227295	Process for isolating A83543 and its components
US6046227	Selective β_3 adrenergic agonists
EP0102213	Ethanolamine derivatives, pharmaceutical compositions containing them, and processes for preparing them.
US6034054	Stable insulin formulations
US5149777	Human insulin analogs and preparations containing them
WO9500550	ASP INSULIN CRYSTALS

US6008199	Methods for treating hypercoagulable states or acquired protein C deficiency
US5084274	Inhibition of arterial thrombotic occlusion or thromboembolism
US4959318	Expression of protein C
US5972383	Solid orally administerable raloxifene hydrochloride pharmaceutical formulation
US5075321	Methods of treating diseases characterized by interactions of IgG-containing immune complexes with macrophage Fc receptors using antiestrogenic benzothiophenes
US4380635	Synthesis of acylated benzothiophenes
US5852193	Process for preparing benzoic acid derivative intermediates and benzothiophene pharmaceuticals
EP0062505	A PROCESS FOR PREPARING ACYLATED BENZOTHIOPHENES
USRE39050	Methods of use for inhibiting bone loss and lowering serum cholesterol
US5532254	Modulation of calcium channels using benzothiophenes
US5494929	Methods of inhibiting growth hormone effects
EP0670162A1	Pharmaceutical formulations containing raloxifene, a surfactant and a watersoluble diluent.
EP0670162	Pharmaceutical formulations containing raloxifene, a surfactant and a watersoluble diluent
GB2293382A	Crystalline raloxifene hydrochloride
GB2293382	Crystalline raloxifene hydrochloride
EP0674903	Raloxifene for inhibiting bone loss and lowering serum cholesterol.

For a more detailed examination of the patents mentioned in this report, please contact us at:
patentlyobvious@m-cam.com.

M·CAM's Patent Glossary

<u>Aligned Sector:</u>	The business sector in which the product(s) resulting from the patent(s) is currently or intended to be sold.
<u>Applicant:</u>	The person or corporation that applies for a patent with the intent to use, manufacture or license the technology of the invention; under U.S. law, except in special situations, the applicant(s) must be the inventor(s).
<u>Application:</u>	Complete papers submitted to the U. S. Patent and Trademark Office seeking a patent including oath, specification, claims, and drawings. This usually does not signify a Provisional Patent Application, but only a regular patent application.
<u>Art:</u>	The established practice and public knowledge within a given field of technology. This also identifies a process or method used to produce a useful result. A term used in consideration of the problem of patentable novelty encompassing all that is known prior to the filing date of the application in the particular field of the invention.
<u>Assignee:</u>	The person(s) or corporate body to whom the law grants or vests a patent right. This refers to the person or corporate entity that is identified as the receiver of an assignment.
<u>Business Method Patent:</u>	A patent that controls the way a business process is undertaken. The issuance of these patents by the United States Patent and Trademark Office (USPTO) is new and controversial, since many allege that it is unfair to allow a patent on a way of doing business.
<u>Citation:</u>	This may include patents or journal articles that the applicant or examiner deems relevant to a current application. A reference to legal authorities or a prior art documentation are examples of a citation.
<u>Claim:</u>	The language in a patent application that defines the legal scope of the patent. Most patents have numerous claims. This is typically the single most important section in the application.
<u>Concurrent Art:</u>	Concurrent art occurs when related patent applications are being examined by the USPTO at the same time. It is difficult for any company or inventor to know, at the time they file for a patent, whether a "related" patent application exists.
<u>Filing Date:</u>	The date when a properly prepared application reaches the patent office in complete form.
<u>Innovation Cycle:</u>	A description of the commercialization timeframe for the intellectual property.
<u>Innovation Space:</u>	M·CAM's representation of the innovation(s) that occur before, during, and after the pending period of the subject patent. The innovation space is the first place to look for patents that are closely related to the subject patent and that may impact the defensibility of the subject patent or create opportunities for patent licensing.
<u>Issue Date:</u>	Not to be confused with the filing date, which is the date the patent application was physically received by the U.S. Patent and Trademark Office. This is the date on which the patent actually issues.
<u>Non-Aligned Sector:</u>	Any sector in which the patent can be used or sold, other than the sector for which the patent or resultant product was invented or intended.
<u>Pod:</u>	A group of patents owned by a company that should be treated as a single unit of innovation (e.g., a certain group of patents that comprise a single product or multiple related products).
<u>Prior Art:</u>	Any relevant patent that was issued before the patent being analyzed. If this previous patent was specifically mentioned in the new patent's application, the previous patent is referred to as "cited prior art". If it was NOT mentioned, then that previous patent is referred to as "uncited prior art".
<u>Subsequent Art:</u>	Any patent that has a filing date with the USPTO that is after the issuance date of the subject patent. This subsequent art patent may or may not have cited (see "Citation" above) the subject patent. As subsequent art represents more recent innovation than the subject patent, it has great potential to shrink the market opportunity for the subject patent.

A Brief Primer on the Patent System

In recent years, the importance of patents and intellectual property rights as an important variable in the marketplace has come to the forefront of the public consciousness as world leaders declare their country's lead in the innovation race. Damaging intellectual property litigation is becoming increasingly common across all industries. This is exacerbated when patent rights are granted for non-novel ideas. A vast amount of precedent innovation is unconsidered by patent-granting authorities in the creation of new IP rights. Patent granting authorities including the United States Patent and Trademark Office (USPTO), European Patent Office (EPO), Japanese Patent Office (JPO), Chinese State Intellectual Property Office (SIPO), Korean Intellectual Property Office (KIPO) and many others are constrained by the use of patent classification systems which are routinely circumvented by patent applicants.

There is a two-way social contract underlying the patent system. In the United States, patent terms are generally limited to 20 years from the date of application. By statutory intention, once a patent has expired, the patent holder loses the right to exclude others from fully utilizing any innovation described in the patent. A large number of patents enter the public domain when they are "abandoned" – when owners discontinue paying patent maintenance fees. Patents also only provide an exclusionary right in the country for which the patent is filed. As demonstrated by the Global Innovation Commons³ (G.I.C.), using intellectual property available in the public domain eliminates the need to pay licensing fees on those innovations in countries where the patent was never registered, or worldwide, if abandoned.

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³ <http://www.globalinnovationcommons.org/>