

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

Assignment ID: PATI318663

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Merial, Inc.	01/29/2019
<b>RECEIVING PARTY DATA</b>	
<b>Company Name:</b>	Boehringer Ingelheim Animal Health USA Inc.
<b>Street Address:</b>	3239 Satellite Blvd.
<b>City:</b>	Duluth
<b>State/Country:</b>	GEORGIA
<b>Postal Code:</b>	30096
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	12758933
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	6784959119
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	(678)638-3439
<b>Email:</b>	tiki.cantrell@boehringer-ingelheim.com
<b>Correspondent Name:</b>	Tiki Cantrell
<b>Address Line 1:</b>	3239 Satellite Blvd.
<b>Address Line 4:</b>	Duluth, GEORGIA 30096
<b>ATTORNEY DOCKET NUMBER:</b>	10673-US-2
<b>NAME OF SUBMITTER:</b>	Tiki Cantrell
<b>SIGNATURE:</b>	Tiki Cantrell
<b>DATE SIGNED:</b>	06/24/2024
<b>Total Attachments: 32</b>	
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## ASSIGNMENT AGREEMENT

This Assignment is made and entered into by and between

**MERIAL, INC.**

a Georgia corporation, having its principal place of business at 3239 Satellite Boulevard, Bldg 500, Duluth, Georgia 30096 USA, on behalf of itself and any of its subsidiaries and/or Affiliates

hereinafter referred to as "**Assignor**"

and

**BOEHRINGER INGELHEIM ANIMAL HEALTH USA INC.**

a corporation organized and existing under the laws of the State of Delaware, successor-in-interest by merger to Merial, Inc., having its principal place of business at 3239 Satellite Boulevard, Bldg. 500, Duluth, Georgia 30096 USA

hereinafter referred to as "**BI AH USA**"

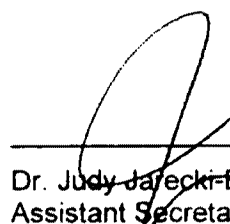
being the proprietor of certain improvements in the international application as indicated in the attached Schedule for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Assignor hereby assign unto **BI AH USA**, its successors and assigns (1) the entire right, title and interest in all countries throughout the world in and to any and all of the inventions and discoveries in the United States utility patent application and International Patent Application, filed under the Patent Cooperation Treaty in the United States Receiving Office (RO/US), designating all PCT member countries/states, as well as in any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof, and any substitute applications therefore, (2) the full and complete right to file patent applications in the name of **BI AH USA**, or their designee's election, on the aforesaid inventions, discoveries and applications in all countries of the world; (3) the entire right title and interest in and to any Letters Patent which may issue on the aforesaid inventions, discoveries and applications in any country of the world and any renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; and (4) the entire right, title and interest in and to all Convention and Treaty Rights of all kinds thereon, including

without limitation all rights of priority in any country of the world, in and to the priority application(s).


The Assignor declares that he is proprietor of the intellectual property rights, such as patents, patent applications, supplementary protection certificates, supplementary protection certificate applications, utility models or design patents, given in the schedule hereto, and hereby declares that he assigns the said intellectual property rights and all his rights, title and interest in and to the said intellectual property rights, to **BI AH USA**, together with all rights of action, power and benefit belonging or accrued arising therefrom including the right to take proceedings to recover damages and claim all other relief in respect of any acts of infringement thereof whether such acts shall have been committed before or after the date of this assignment. **BI AH USA** hereby declares that he accepts such assignment.

Assignor further agrees that the change of ownership be recorded in the official Patent Office records.

Date: January 29, 2019  
Merial Inc.

  
Dr. Judy Jarecki-Black, Esq.  
Assistant Secretary for Patents

Date: January 29, 2019  
Boehringer Ingelheim Animal  
Health USA Inc.

  
Everett Hoekstra  
President

Enclosure: Intellectual Property Rights - Schedule

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	"(S)-ENANTIOMER ENRICHED FIPRONIL COMPOSITION"	09/550312	6346542
United States of America	Granted	Selective Embryonic Structure Targeting and Substance Delivery Device	14517184	9686969
United States of America	Granted	Processes For Preparing Pesticidal Intermediates	10120479	6673956
United States of America	Granted	Processes For Preparing Pesticidal Intermediates	9673801	6392081
United States of America	Granted	Arylazol-2-YL Cyanoethylamide Compounds, Method of Making and Method of Using Thereof	13622664	8822689
United States of America	Granted	Arylazol-2-YL Cyanoethylamide Compounds, Method of Making and Method of Using Thereof	13325467	8283475
United States of America	Granted	Arylazol-2-YL Cyanoethylamide Compounds, Method of Making and Method of Using Thereof	12119150	8088801
United States of America	Granted	NEW PROCESS FOR PREPARING PESTICIDAL INTERMEDIATES	10621344	6919462
United States of America	Granted	NEW PROCESS FOR PREPARING PESTICIDAL INTERMEDIATES	9890653	6620944
United States of America	Granted	PLANTING APPARATUS WITH IMPROVED LIQUID PESTICIDE DELIVERY DEVICE AND RELATED METHOD FOR DELIVERING LIQUID PESTICIDE	9396332	6289829
United States of America	Granted	NEW PROCESS FOR PREPARING PESTICIDAL INTERMEDIATES	11129837	7087786
United States of America	Granted	Processes For Preparing Pesticidal Intermediates	10703417	7094906
United States of America	Granted	Processes for Preparing Pesticidal Intermediates	9937816	6410737
United States of America	Granted	PESTICIDAL BIS-ORGANOSULFUR COMPOUNDS	13511736	8846569
United States of America	Published	USE OF MALONONITRILE COMPOUNDS FOR PROTECTING ANIMALS FROM PARASITES	15304018	

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	5-Substituted-Alkylaminopyrazole Derivatives as Pesticides	10506356	7517877
United States of America	Pending	Modified Marek's Disease Virus, and Vaccines Made Therefrom	16262774	
United States of America	Pending	REDUCED FOAMING VACCINE COMPOSITIONS	16256463	
United States of America	Granted	NEEDLE-FREE ADMINISTRATION OF PRRSV VACCINES	13479451	9669085
United States of America	Granted	RECOMBINANT FELINE LEUKEMIA VIRUS VACCINE CONTAINING OPTIMIZED FELINE LEUKEMIA VIRUS ENVELOPE GENE	14616042	9682138
United States of America	Granted	RECOMBINANT FELINE LEUKEMIA VIRUS VACCINE CONTAINING OPTIMIZED FELINE LEUKEMIA VIRUS ENVELOPE GENE	14507455	9856295
United States of America	Granted	RECOMBINANT FELINE LEUKEMIA VIRUS VACCINE CONTAINING OPTIMIZED FELINE LEUKEMIA VIRUS ENVELOPE GENE	13364993	8895027
United States of America	Granted	Novel Monensin Derivatives for the Treatment and Prevention of Protozoal Infections	13297367	8822528
United States of America	Published	Vaccines Comprising A Tick Cement Protein	10/280114	
United States of America	Granted	Methods of using Microneedle Vaccine Formulations to Elicit in Animals Protective Immunity against Rabies Virus	14930831	10010499
United States of America	Granted	RECOMBINANT ADENOVIRUS VECTORED FMDV VACCINES AND USES THEREOF	15419418	10188721
United States of America	Pending	RECOMBINANT ADENOVIRUS VECTORED FMDV VACCINES AND USES THEREOF	16250654	
United States of America	Granted	ANTIMICROBIAL POLYAMIDE COMPOSITIONS AND MASTITIS TREATMENT	14204339	10131744

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Published	Multi-dose Compositions Containing an Antimicrobial Polyamide or Octenidine Preservative	15487323	
United States of America	Published	Recombinant AAV Vectors Expressing Osteoprotective genes, including HAS2 and Lubricin, useful in the Treatment of Osteoarthritis and Related Joint Conditions in Mammals	15405992	
United States of America	Published	Novel Methods for Freeze-drying and Rehydrating Biologics	15311093	
United States of America	Granted	Immunogenic Polypeptide Isolate from Mycobacterium Avium Subspecies Paratuberculosis and Uses Thereof	12654214	9102743
United States of America	Granted	Immunogenic Polypeptide Isolate from Mycobacterium Avium Subspecies Paratuberculosis and Uses Thereof	10518432	7744905
United States of America	Granted	Method of maintaining oral health in animals Using Morpholine Derivatives	15801109	10206928
United States of America	Published	Method of maintaining oral health in animals	14700962	
United States of America	Granted	DNA MOLECULES ENCODING LIGAND-GATED ION CHANNELS FROM DROSOPHILA MELANOGASTER	10204029	7244586
United States of America	Granted	Compositions and Methods of Preventing or Reducing The Risk or Incidence of Skeletal Injuries in Horses	9902913	6638920
United States of America	Granted	Cyclic GMP Dependent Protein Kinase as a Chemotherapeutic Target for Antiprozoal Agents	09/521,511	6,555,358
United States of America	Granted	Method for Inhibiting Dental Resorptive Lesions	9436585	6331533
United States of America	Granted	Attenuated Gram Negative Bacteria	13091046	8329163
United States of America	Granted	Gene Therapy For Renal Failure	12273931	7772205

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	Attenuated Gram Negative Bacteria	12246809	7943125
United States of America	Granted	Heterocyclic Amide and Imine Derivatives, Processes for their Preparation, Compositions Compromising Them and Their Use as Pesticides	11756525	7629348
United States of America	Granted	Process For the Preparation of Phenyl Pyrazole Compounds	11529051	7323574
United States of America	Granted	Pyridine Carboxamide Derivatives and Their Use As Pesticides	10514485	7476685
United States of America	Granted	Anthelmintic Oral Homogeneous Veterinary Pastes	11107048	7563773
United States of America	Granted	Heterocyclic Amide and Imine Derivatives, Processes for their Preparation, Compositions Compromising Them and Their Use as Pesticides	10 811578	7235571
United States of America	Granted	Process For the Preparation of Phenyl Pyrazole Compounds	10519823	7129372
United States of America	Granted	Cotton rat lung cells for virus culture.	10391498	7906311
United States of America	Granted	Cyclic GMP Dependent Protein Kinase as a Chemotherapeutic Target for Antiprozoal Agents	10/348,155	7125700
United States of America	Granted	Feline Calicivirus (FCV) Capside Gene and Recombinant Vaccine	10/209507	6914134
United States of America	Granted	Pesticidal 1-Arylpyrazoles	10196959	6638956
United States of America	Granted	Equine Herpes Virus Type1 Glycoprotein D (EHV-1gD)	94440	6605465
United States of America	Granted	Pesticidal 1-Arylpyrazoles	9970667	6500850
United States of America	Granted	Omeprazole Prevention of Ulcers	09/867285	6939881
United States of America	Granted	Process which is useful for converting the Carbonyl function in position 4" of the Cladinose Unit of an Aza-Macrolide Into an Amine Derivative	09/858671	6562953
United States of America	Granted	Dermacentor Variabilis GABA Gated Chloride Channels	10239956	7220832
United States of America	Granted	Vacin circovirus et parvovirus porcin.	09/784962	6953581



**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	Improved DNA Vaccines for Farm Animals, in particular Bovines and Porcines	09/760,574	7,078,388
United States of America	Granted	Process for Preparing and Isolating 9-Deoxo-9(2)-Hydroxyiminoerythromycine A	09/740671	6590084
United States of America	Granted	Equine Herpes Virus Type1 Glycoprotein D (EHV-1gD)	717577	6395283
United States of America	Granted	Pesticidal 1-Arylpyrazoles	9714100	6395760
United States of America	Granted	Live Recombined Vaccines Injected with Adjuvant	622951/09	6713068
United States of America	Granted	Feline Calicivirus (FCV) Capside Gene and Recombinant Vaccine	09 617594	6541458
United States of America	Granted	Equine Herpes Virus Type1 Glycoprotein D (EHV-1gD)	532906	6248333
United States of America	Granted	Poxvirus-canine distemper virus (CDV) or measles virus recombinants and compositions and methods employing the recomb	354138	6309647
United States of America	Granted	Water Miscible Microlide Solutions	9346905	6239112
United States of America	Pending	AVERMECTIN B1 DERIVATIVES HAVING AN AMINOSULFONYLOXY SUBSTITUENT IN THE 4"-POSITION	10/498858	
United States of America	Pending	Compositions and Vaccines containing Antigen(s) Of Cryptosporidium Parvum and of another Pathogen	09/733329	
United States of America	Published	Modified Marek's Disease Virus, and Vaccines Made Therefrom	13841684	
United States of America	Granted	USE OF MORPHOLINO COMPOUNDS FOR THE PREVENTION OF BACTERIAL CONTAMINATION	11814925	8999365
United States of America	Prosecution	MORPHOLINO COMPOUND MICROEMULSION	12742407	
United States of America	Granted	Leishmania Vaccine Using Sand Fly Salivary Immunogen	12436398	8603808

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	AVERMECTIN B1 AND AVERMECTIN B1 MONOSACCHARIDE DERIVATIVES HAVING AN ALKOXYMETHYL SUBSTITUENT IN THE 4"-OR 4'-POSITION	13117292	8263566
United States of America	Granted	RAPIDLY DISSOLVING VACCINE COMPOSITIONS	16125911	10213509
United States of America	Granted	ATTENUATED MANNHEIMIA HAEMOLYTICA VACCINES AND METHODS OF MAKING AND USE	15594451	10058601
United States of America	Granted	Apparatus and methods for labeling vials or ampoules stored at temperatures as low as -200 °C	15498933	10071582
United States of America	Granted	Recombinant Poxviral Vectors Expressing both Rabies and OX40 Proteins, and Vaccines Made Therefrom	15410588	10006050
United States of America	Granted	ANTHELMINTIC COMPOUNDS	15311848	10045979
United States of America	Granted	FMDV and E2 Fusion Proteins and Uses Thereof	15353727	9913891
United States of America	Granted	PARASITICIDAL COMPOSITIONS COMPRISING ISOXAZOLINE ACTIVE AGENT, METHODS AND USES THEREOF	15286133	10201529
United States of America	Granted	Canine Parvovirus (CPV) Virus-like Particle (VLP) Vaccines and uses thereof	15265545	10080798
United States of America	Granted	Topical Compositions Comprising Fipronil and Permethrin and Methods of Use	15248327	9949953
United States of America	Granted	ANTIPARISITIC DIHYDROAZOLE COMPOUNDS AND COMPOSITIONS COMPRISING SAME	15191163	9776999
United States of America	Granted	PRRSV minor protein-containing recombinant viral vectors and methods of making and use thereof	15190740	9981033

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	ANTHELMINTIC DEPSIPEPTIDE COMPOUNDS	15160577	10081656
United States of America	Granted	METHOD FOR PORCINE CIRCOVIRUS PRODUCTION	15154028	9944904
United States of America	Granted	PARASITICIDAL COMPOSITIONS COMPRISING BENZIMIDAZOLE DERIVATIVES, METHODS AND USES THEREOF	15148168	9695129
United States of America	Granted	Recombinant CDV Compositions and uses thereof	15084108	10076566
United States of America	Granted	ATTENUATED MANNHEIMIA HAEMOLYTICA VACCINES AND METHODS OF MAKING AND USE	14991003	9675682
United States of America	Granted	ANTHELMINTIC COMPOUNDS AND COMPOSITIONS AND METHOD OF USING THEREOF	14981847	10155725
United States of America	Granted	PARASITICIDAL ORAL VETERINARY COMPOSITIONS COMPRISING ISOXAZOLINE ACTIVE AGENTS, METHODS AND USES THEREOF	14977680	9931320
United States of America	Granted	ATTENUATED SWINE INFLUENZA VACCINES AND METHODS OF MAKING AND USE THEREOF	14977485	9623105
United States of America	Granted	PARASITICIDAL COMPOSITIONS COMPRISING ISOXAZOLINE ACTIVE AGENT, METHODS AND USES THEREOF	14930690	9877950
United States of America	Granted	REDUCED FOAMING VACCINE COMPOSITIONS	14880145	10188734
United States of America	Granted	Dissolution of hydrophobic API, including avermectins with or without other API such as pyrantel, from a complicated matrix dosage form	14872639	10073072

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	Parasitocidal Compositions Comprising Multiple Active Agents, Methods and Uses Thereof	14868927	9770449
United States of America	Granted	FMDV RECOMBINANT VACCINES AND USES THEREOF	14863181	10010605
United States of America	Granted	Novel Cryopreservation Bags and method of use thereof for Closed System, High Capacity Cell-Banking	14826720	9879217
United States of America	Granted	RECOMBINANT HVT VECTORS EXPRESSING ANTIGENS OF AVIAN PATHOGENS AND USES THEREOF	14747419	9555096
United States of America	Granted	PARASITICIDAL COMPOSITIONS COMPRISING INDOLE DERIVATIVES, METHODS AND USES THEREOF	14744166	9776986
United States of America	Granted	Recombinant Spike Protein Subunit Based Vaccine for Porcine Epidemic Diarrhea Virus (PEDV)	14716481	9713639
United States of America	Granted	Her2 DNA Vaccine as Adjunct Treatment for Cancers in Companion Animals	14699296	9901628
United States of America	Granted	RECOMBINANT GALLID HERPESVIRUS 3 (MDV SEROTYPE 2) VECTORS EXPRESSING ANTIGENS OF AVIAN PATHOGENS AND USES THEREOF	14682798	9770502
United States of America	Granted	Immunological Compositions Containing Attenuated Histophilus somni	15419568	10098941
United States of America	Granted	Immunological Compositions Containing Attenuated Histophilus somni	14668656	9592283

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	ANTIPARISITIC DIHYDROAZOLE COMPOUNDS AND COMPOSITIONS COMPRISING SAME	14658668	9376434
United States of America	Granted	ATTENUATED PARVOVIRUS VACCINE FOR MUSCOVY DUCK PARVOVIRUS AND GOOSE PARVOVIRUS (DERZSY DISEASE)	15378147	9913896
United States of America	Granted	ATTENUATED PARVOVIRUS VACCINE FOR MUSCOVY DUCK PARVOVIRUS AND GOOSE PARVOVIRUS (DERZSY DISEASE)	14427197	9555098
United States of America	Granted	VACCINE FORMULATIONS COMPRISING SAPONIN-CONTAINING ADJUVANTS	14632863	9730987
United States of America	Granted	PARASITICIDAL ORAL VETERINARY COMPOSITIONS COMPRISING ISOXAZOLINE ACTIVE AGENTS, METHODS AND USES THEREOF	14627499	9259417
United States of America	Granted	PARASITICIDAL COMPOSITIONS COMPRISING BENZIMIDAZOLE DERIVATIVES, METHODS AND USES THEREOF	14627595	9359305
United States of America	Granted	NEWCASTLE DISEASE VIRUS VECTORED HERPESVIRUS VACCINES	14616011	9446118
United States of America	Granted	TOPICAL DELIVERY FORMULATION	14600651	9756852
United States of America	Granted	RECOMBINANT EQUINE HERPESVIRUS-1 VACCINE CONTAINING MUTATED GLYCOPROTEIN C AND USES THEREOF	14543300	9555101
United States of America	Granted	IMPROVED PROCESSES FOR THE PREPARATION OF 1-ARYL-5-ALKYL PYRAZOLE COMPOUNDS	14543341	9273007

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	Attenuated Pasteurella Multocida Vaccines & Methods of Making & Use Thereof.	14528305	9757445
United States of America	Granted	ANTIPARISITIC AND PESTICIDAL ISOXAZOLINE COMPOUNDS	14528172	9447084
United States of America	Granted	HAEMOPHILUS PARASUIS VACCINE SEROVAR TYPE FOUR	14507397	9504740
United States of America	Granted	COMPOSITIONS COMPRISING AN ARYL PYRAZOLE AND A SUBSTITUTED IMIDAZOLE, METHODS AND USES THEREOF	14493562	9125407
United States of America	Granted	Multi-chamber, Multi-formulation Fluid Delivery System	14488968	9706754
United States of America	Granted	1-Aryl-5-Alkyl Pyrazole Derivative Compounds, Processes of Making and Methods of Using Thereof	14325761	9339033
United States of America	Granted	Sustained Release Capsules	14274282	9555225
United States of America	Granted	NEWCASTLE DISEASE VIRUS VECTORED AVIAN VACCINES	14268302	9616118
United States of America	Granted	LONG-ACTING INJECTABLE MOXIDECTIN FORMULATIONS AND NOVEL MOXIDECTIN CRYSTAL FORMS	14225187	9044453
United States of America	Granted	Reverse genetics Schmallenberg virus vaccine compositions, and methods of use thereof	14204248	9556419
United States of America	Granted	METHOD FOR TREATING AND CURING LEISHMANIOSIS USING FEXINIDAZOLE	14169713	9585871
United States of America	Granted	ANTIPARISITIC DIHYDROAZOLE COMPOUNDS AND COMPOSITIONS COMPRISING SAME	14086712	8980893
United States of America	Granted	ANTHELMINTIC COMPOUNDS AND COMPOSITIONS AND METHOD OF USING THEREOF	14083879	9249102

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	ATTENUATED MANNHEIMIA HAEMOLYTICA VACCINES AND METHODS OF MAKING AND USE	14075169	9370561
United States of America	Granted	EXPRESSION OF CHIMERIC KSAC PROTEIN AND METHOD OF PRODUCING SOLUBLE PROTEIN BY HIGH PRESSURE	14014437	9315553
United States of America	Granted	Hyperbaric Device and Methods for Producing Inactivated Vaccines and for Refolding/Solubilizing Recombinant Proteins	14014434	9169302
United States of America	Granted	METHOD OF PROVIDING PROTECTIVE IMMUNITY AGAINST HETEROLOGOUS LEPTOSPIRA STRAINS	13939300	9050282
United States of America	Granted	ATTENUATED SWINE INFLUENZA VACCINES AND METHODS OF MAKING AND USE THEREOF	13939321	9216211
United States of America	Granted	ATTENUATED STREPTOCOCCUS SUI VACCINES AND METHODS OF MAKING AND USE THEREOF	13924871	9289484
United States of America	Granted	COMPOSITIONS COMPRISING AN ARYLPYRAZOLE AND/OR A FORMAMIDINE METHODS AND USES THEREOF	13901077	8921408
United States of America	Granted	1-Aryl-5-Alkyl Pyrazole Derivative Compounds, Processes of Making and Methods of Using Thereof	13894601	8785372
United States of America	Granted	IMPROVED PROCESSES FOR THE PREPARATION OF 1-ARYL-5-ALKYL PYRAZOLE COMPOUNDS	13867699	8937185
United States of America	Granted	PARASITICIDAL COMPOSITIONS COMPRISING BENZIMIDAZOLE DERIVATIVES, METHODS AND USES THEREOF	13865802	9000187

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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	RECOMBINANT EQUINE HERPESVIRUS-1 VACCINE CONTAINING MUTATED GLYCOPROTEIN C AND USES THEREOF	13840935	8916371
United States of America	Granted	Topical Compositions Comprising Fipronil and Permethrin and Methods of Use	13774159	9457088
United States of America	Granted	Recombinant Poxviral Vectors Expressing both Rabies and OX40 Proteins, and Vaccines Made Therefrom	13767603	9567606
United States of America	Granted	Rotavirus Subunit Vaccines and Methods of Making and Use Thereof	13767569	9446117
United States of America	Granted	COMPOSITIONS COMPRISING AN ARYLPYRAZOLE AND/OR A FORMAMIDINE METHODS AND USES THEREOF	13765542	9173728
United States of America	Granted	PARASITICIDAL ORAL VETERINARY COMPOSITIONS COMPRISING ISOXAZOLINE ACTIVE AGENTS, METHODS AND USES THEREOF	13754969	9233100
United States of America	Granted	Long-acting nanoencapsulated arthropod repellent formulations and methods of use thereof	13751787	8999362
United States of America	Granted	LONG-ACTING INJECTABLE MOXIDECTIN FORMULATIONS AND NOVEL MOXIDECTIN CRYSTAL FORMS	13690185	8715711
United States of America	Granted	RECOMBINANT GALLID HERPESVIRUS 3 (MDV SEROTYPE 2) VECTORS EXPRESSING ANTIGENS OF AVIAN PATHOGENS AND USES THEREOF	13689572	9101598



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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	RECOMBINANT HVT VECTORS EXPRESSING ANTIGENS OF AVIAN PATHOGENS AND USES THEREOF	13689625	9114108
United States of America	Granted	COMPOSITIONS COMPRISING AN ARYL PYRAZOLE AND A SUBSTITUTED IMIDAZOLE, METHODS AND USES THEREOF	14358309	9173404
United States of America	Granted	PARASITICIDAL COMPOSITIONS COMPRISING ISOXAZOLINE ACTIVE AGENT, METHODS AND USES THEREOF	13611025	9180121
United States of America	Granted	Topical Formulations Comprising A 1-N Arylpyrazol Derivative and A Formamidine	13555546	9066515
United States of America	Granted	AMIDO-PYRIDYL ETHER COMPOUNDS AND COMPOSITIONS AND THEIR USE AGAINST PARASITES	14127248	8946270
United States of America	Granted	METHOD FOR VACUUM-ASSISTED PRESERVATION OF BIOLOGICS INCLUDING VACCINES	13485437	10166188
United States of America	Granted	Insecticidal 4-amino-thieno[2,3-d]-pyrimidine compounds and methods of their use	13386194	9133209
United States of America	Granted	ANIMAL MEDICINE REMINDER TAG	13420217	8982672
United States of America	Granted	Leishmania Challenge Model	13296675	8414882
United States of America	Granted	Her2 DNA Vaccine as Adjunct Treatment for Cancers in Companion Animals	13272651	9040053B2
United States of America	Granted	NEWCASTLE DISEASE VIRUS VECTORED HERPESVIRUS VACCINES	13220196	8986706
United States of America	Granted	DIMERIC 1-ARYLPYRAZOLE DERIVATIVES	13129031	8642636

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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	Parasitocidal Compositions Comprising Multiple Active Agents, Methods and Uses Thereof	13078496	9173403
United States of America	Granted	BLUETONGUE VIRUS RECOMBINANT VACCINES AND USES THEREOF	13046317	9345759
United States of America	Granted	Recombinant CDV Compositions and uses thereof	13035904	9327137
United States of America	Granted	ANTIPARISITIC DIHYDROAZOLE COMPOUNDS AND COMPOSITIONS COMPRISING SAME	12970670	8618126
United States of America	Granted	COMPOSITIONS COMPRISING MACROCYCLIC LACTONE COMPOUNDS AND SPIRODIOXEPINOINDOLES	12970684	8980896
United States of America	Granted	FLUORINATED OXA OR THIA HETEROARYLALKYLSULFIDE DERIVATIVES FOR COMBATING INVERTEBRATE PESTS	13510197	9023874
United States of America	Granted	VACCINE FORMULATIONS COMPRISING SAPONIN-CONTAINING ADJUVANTS	12878630	9107859
United States of America	Granted	Energy Absorbing Container	12849611	9169042
United States of America	Granted	Nipah Virus Vaccine	12839556	8420389
United States of America	Granted	Canine Leishmania Vaccine	12839580	8871225
United States of America	Granted	Sustained Release Capsules	13386202	8734430
United States of America	Granted	1-Aryl-5-Alkyl Pyrazole Derivative Compounds, Processes of Making and Methods of Using Thereof	12814289	8445519
United States of America	Granted	Intra-Vascular Kidney Gene Therapy with Plasmid Encoding BMP-7	12794184	8097599
United States of America	Granted	ANTIBIOTIC-FREE PLASMID	12786186	9217153
United States of America	Granted	MACROCYCLIC LACTONE COMBINATION COMPOSITIONS, VACCINES AND METHODS FOR PRODUCING SAME	12759176	8313752

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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	NEWCASTLE DISEASE VIRUS VECTORED AVIAN VACCINES	12753597	8871220
United States of America	Granted	DNA Molecules Encoding Ligand Gated Ion Channels from Dermacentor Variables	12684705	8163877
United States of America	Granted	Anthelmintic Composition	12632569	8067382
United States of America	Granted	DIMERIC AVERMECTIN AND MILBEMYCIN DERIVATIVES	12631249	8426460
United States of America	Granted	Recombinant Avian Influenza Vaccine	12628085	8394384
United States of America	Granted	ENANTIOMERICALLY ENRICHED ARYLOAZOL-2-YL CYANOETHYLAMINO COMPOUNDS, METHOD OF MAKING AND METHOD OF USING THEREOF	12618308	8461176
United States of America	Granted	COMPOSITIONS COMPRISING AN ARYLPYRAZOLE AND/OR A FORMAMIDINE METHODS AND USES THEREOF	12618534	8450357
United States of America	Granted	Method of Synthesizing Macrolide Compounds	12604618	8314218
United States of America	Granted	Vaccine Against African Horse Sickness Virus	12604048	8168200
United States of America	Granted	METHYLTHIOAMIDE AMIDO AND ARYLAZOL-2-YL-METHYLTHIOAMIDE AMIDO COMPOUNDS, METHOD OF MAKING AND METHOD OF USING THEREOF	12582486	7964621
United States of America	Granted	THIOAMIDE AMIDO COMPOUNDS, METHOD OF MAKING AND METHOD OF USING THEREOF	13086161	8314146
United States of America	Granted	ECTOPARASITE DIAGNOSTIC APPARATUS AND METHOD OF USE THEREOF	12485254	7980200
United States of America	Granted	PESTICIDAL N-PHENYLPYRAZOLE DERIVATIVES	12409252	8124642
United States of America	Granted	Solvent Systems For Pour-On Formulations For Combating Parasites	12324066	8097266

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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	MALONONITRILE COMPOUNDS	12158507	8916592
United States of America	Granted	Adjustable Animal Watering System	12113483	8196549
United States of America	Granted	Assay for Porcine Circovirus Production	12101512	7476507
United States of America	Granted	Multiple Fluid Delivery Device For Poultry	11959400	7850665
United States of America	Granted	Salmonella Vaccine	11953472	8062645
United States of America	Granted	Canine Leishmania Vaccine	11942457	7794736
United States of America	Granted	Dispersion Devices For Aggregates	11870059	7658341
United States of America	Granted	DNA Molecules Encoding Ligand Gated Ion Channels from Dermacentor Variables	11840519	7645867
United States of America	Granted	DNA Molecules Encoding Ligand Gated Ion Channels from Dermacentor Variables	11840542	7655440
United States of America	Granted	1-Aryl-5-Alkyl Pyrazole Derivative Compounds, Processes of Making and Methods of Using Thereof	11825050	7759381
United States of America	Granted	1-Arylpyrazoles and their use as pesticide	11764255	8097732
United States of America	Granted	5-Aminopyrazole derivatives as pesticidal compounds	11759386	7834003
United States of America	Granted	INSECTICIDAL METHODS USING 4-AMINO-5-CHLORO-THIENO [2,3-D]-PYRIMIDINE COMPOUNDS	12301511	8242123
United States of America	Granted	Vaccine Against Streptococci	11692968	7455844
United States of America	Granted	DNA Molecules Encoding L- Glutamate-Gated Chloride Channels from Rhipicephalus sanguineus	11620347	7541432
United States of America	Granted	DNA Molecules Encoding L- Glutamate-Gated Chloride Channels from Rhipicephalus sanguineus	11620390	7674586
United States of America	Granted	DNA Molecules Encoding L- Glutamate-Gated Chloride Channels from Rhipicephalus sanguineus	11620435	7915010
United States of America	Granted	Gene Therapy For Renal Failure	11599026	7598364

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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	EGG VACCINATION APPARATUS	11584775	7721674
United States of America	Granted	Control of Arthropods in Animals	11529778	7468381
United States of America	Granted	STABILIZERS FOR FREEZE-DRIED VACCINES	11522211	8784843
United States of America	Granted	Vesicular Stomatitis Virus	11505064	8008268
United States of America	Granted	Pesticidal Compositions	10537460	7504362
United States of America	Granted	Leptospirosis Culture Process	11404690	8642316
United States of America	Granted	Nipah Virus Vaccine	11404534	7803612
United States of America	Granted	Assay for Porcine Circovirus Production	11/403,497	7358075
United States of America	Granted	AVERMECTIN B1 MONOSACCHARIDE DERIVATIVES	10560390	7521429
United States of America	Granted	6-HALOGENO-[1,2,4]TRIAZOLO[1,5-A]PYRIMIDINES FOR COMBATING ANIMAL PESTS	10570854	8664235
United States of America	Granted	Chemical Compounds, Process for their preparation and the use thereof	11780823	7700639
United States of America	Granted	Mixing Devices for Chemical Lysis of Cells	11287906	7829323
United States of America	Granted	Antiprotozoal Imidazopyridine Compounds	10548154	7504501
United States of America	Granted	Canine Influenza Vaccines	11/211,983	7384642
United States of America	Granted	1-ARYLPYRAZOLE DERIVATIVES PESTICIDAL AGENTS	11615647	7625842
United States of America	Granted	AUTOMATIC EGG VACCINATOR	11152613	7430987
United States of America	Granted	Needle-free Administration of FELV Vaccines	11/146,299	7582302
United States of America	Granted	Avipox Recombinants Expressing Foot and Mouth Disease Virus (FMDV) Genes	11110480	7527960
United States of America	Granted	Methods and Apparatus for Automatic Jet Injection of Bird Eggs	11096639	7261053
United States of America	Granted	SALTS OF AVERMECTINS SUBSTITUTED IN THE 4"-POSITION AND HAVING PESTICIDAL PROPERTIES	11319687	7678773

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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	AVERMECTINS SUBSTITUTED IN THE 4"-POSITION HAVING PESTICIDAL PROPERTIES	11319686	7732416
United States of America	Granted	1"Phenyl and 1-Pyridylpyrazole Derivatives and Their Use as Pesticides	10592519	7872038
United States of America	Granted	Chimeric Vectors	10958267	7998733
United States of America	Granted	AVERMECTIN AND AVERMECTIN MONOSCCHARIDES SUBSTITUTED IN THE 4'-AND 4"-POSITION HAVING PESTICIDAL PROPERTIES	10568715	7704961
United States of America	Granted	New Vaccine Formulations	10899181	7371395
United States of America	Granted	Canine GHRH Gene, Polypeptides and Methods of Use	10838122	7351815
United States of America	Granted	Topical Anthelmintic Veterinary Formulations	10/818,313	6991801
United States of America	Granted	Topical Formulations Comprising A 1-N Arylpyrazol Derivative and A Formamidine	12420325	8242161
United States of America	Granted	Topical Formulation Comprising 1-N-Arylpyrazole Derivatives and Amitraz	10/783,459	7531186
United States of America	Granted	AVERMECTINS SUBSTITUTED IN THE 4" AND 4'-POSITIONS HAVING PESTICIDAL PROPERTIES	10/544274	7378399
United States of America	Granted	AVERMECTIN-AND AVERMECTIN MONOSACCHARIDE DERIVATIVES SUBSTITUTED IN THE 4"-OR 4'-POSITION HAVING PESTICIDAL PROPERTIES	10543638	7632820
United States of America	Granted	Pesticidal 5-(ACYLAMINO) Pyrazole Derivatives	10537547	7514561
United States of America	Granted	Process For The Preparation of Pesticidal Compounds	10297676	7199246
United States of America	Granted	Controls of Arthropods in Animals	10/612,269	7067548
United States of America	Granted	4"-DEOXY-4"-(S)-AMIDO AVERMECTIN DERIVATIVES	10/513247	7608595

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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	Process for the preparation of pesticidal compounds	10297675	6812347
United States of America	Granted	Control of Arthropods in Animals	10 406491	6992099
United States of America	Granted	5-Substituted-Alkylaminopyrazole Derivatives As Pesticides"	10506358	7576107
United States of America	Granted	Vaccine Spray System	10/350,557	6910446
United States of America	Granted	Cyclic GMP Dependent Protein Kinase as a Chemotherapeutic Target for Antiprozoal Agents	11525062	7718390
United States of America	Granted	Controls of Arthropods in Animals	10/342,203	6630499
United States of America	Granted	Pesticidal 1-Ayl-3-Amidoxime-Pyrazole Derivatives	10537466	7514428
United States of America	Granted	DNA Encoding Novel Cyclic GMP Dependent Protein Kinase From Two Protozoal Sources For Use as Chemotherapeutic Targets for Antiprotozoal Agents	10/499,554	7390892
United States of America	Granted	Automatic Poultry Injection Delivery Apparatus	10295635	6789467
United States of America	Granted	Dihalopropene Compounds, Processes for Their Preparation, Compositions Comprising Them and Their Use As Pesticides	10289398	6949551
United States of America	Granted	DNA Molecules Encoding Ligand Gated Ion Channels from Dermacentor Variables	10/239,420	7267964
United States of America	Granted	Tissue Cement Proteins From Rhipicephalus Appendiculatus	10226489	7335733
United States of America	Granted	Substituted Propargylamines	10/225,354	7084158
United States of America	Granted	4"-DEOXY-4"(S) AMINO AVERMECTIN DERIVATIVES	10488225	7605134
United States of America	Granted	Polymorphic B Form of 3-(cyclopropylmethoxy)-4-(4-(methylsulfonyl)phenyl)-5,5 dimethyl-5H-furan-2-one	10117854	6677373
United States of America	Granted	Arylisoxazoline Derivatives, Processes for their Preparation and their use as Pesticides	10102789	6645984
United States of America	Granted	Anthelmintic Composition	9958814	7638545
United States of America	Granted	Bird vaccinating device and method of operation	10/035341	6609479

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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	Pesticidal Compounds and Compositions	09/796,651	6458744
United States of America	Granted	Genesis Prazoquantel Solution	9214543	6165987
United States of America	Granted	PESTICIDAL 1-ARYLPYRAZOLES	9578859	6403628
United States of America	Granted	Improved Paste Formulations	09/504741	6787342
United States of America	Granted	Controls of Arthropods in Animals	09/457,869	6160002
United States of America	Granted	Aromatic Amides, Their Preparation Process and Their Use as Pesticides	9402704	6555709
United States of America	Granted	EMULSIFIABLE CONCENTRATE COMPRISING AN INSECTICIDAL 1-ARYLPYRAZOLE	9365183	6090751
United States of America	Granted	Insecticidal Methods	9352358	6313157
United States of America	Granted	PESTICIDAL 1-ARYLPYRAZOLES	9339175	6087387
United States of America	Granted	Process and Composition for the Antiparasitic Treatment of the Surrounding of Animals	9230282	6524603
United States of America	Pending	PARASITICIDAL COMPOSITIONS COMPRISING AN ISOXAZOLINE ACTIVE AGENT, METHODS AND USES THEREOF	16247359	
United States of America	Pending	NOVEL METHOD FOR VACUUM-ASSISTED PRESERVATION OF BIOLOGICS INCLUDING VACCINES	16182868	
United States of America	Pending	PROCESS FOR THE PREPARATION OF ISOXAZOLINE COMPOUNDS	16182838	
United States of America	Pending	Streptococcus vaccines and uses thereof	16118857	
United States of America	Pending	ANTHELMINTIC DEPSIPEPTIDE COMPOUNDS	16111027	



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United States of America	Pending	PARASITICIDAL ORAL VETERINARY COMPOSITIONS COMPRISING ISOXAZOLINE ACTIVE AGENTS, METHODS AND USES THEREOF	15936778	
United States of America	Prosecution	Cartridge Dispensing Devices and Cartridges For Use Therewith	15440951	
United States of America	Granted	Cartridge Dispensing Devices and Cartridges For Use Therewith	12921807	8945070
United States of America	Granted	New Vaccine Formulations	12027776	7608279
United States of America	Granted	Pesticidal 5-Substituted-Oxyalkylamino-a-Arylpyrazole Derivatives	10570042	7879897
United States of America	Granted	Stablized formulation of ivermectin feed premix	10790489	7671034
United States of America	Published	Canine Parvovirus (CPV) Virus-like Particle (VLP) Vaccines and uses thereof	16109570	
United States of America	Published	ANTHELMINTIC COMPOUNDS	16054101	
United States of America	Published	Dual Active Parasitocidal Granule Compositions, Methods and Uses Thereof	16017880	
United States of America	Published	Veterinary Formulations	15777886	
United States of America	Published	PRRSV minor protein-containing recombinant viral vectors and methods of making and use thereof	15961635	
United States of America	Published	CRYSTALLINE FORMS OF (S)-AFOXOLANER	15946642	
United States of America	Published	Topical Compositions Comprising Fipronil and Permethrin and Methods of Use	15937878	
United States of America	Published	METHOD FOR PORCINE CIRCOVIRUS PRODUCTION AND PCV2 VACCINES	15914420	
United States of America	Published	PARASITICIDAL ORAL VETERINARY COMPOSITIONS COMPRISING ISOXAZOLINE ACTIVE AGENTS, METHODS AND USES THEREOF	15904798	

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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Published	FCV RECOMBINANT VACCINES AND USES THEREOF	15753324	
United States of America	Published	Liquid Applicator for Delivering Vaccines	15895876	
United States of America	Published	FMDV and E2 Fusion Proteins and Uses Thereof	15888718	
United States of America	Published	Inactivated Canine Influenza Vaccines and Methods of Making and Uses Thereof	15846735	
United States of America	Published	Novel Cryopreservation Bags and method of use thereof for Closed System, High Capacity Cell-Banking	15840701	
United States of America	Published	Attenuated Swine Influenza Vaccines and Methods of Making and Use Thereof	15828067	
United States of America	Published	Use of Morpholino Compounds for the Treatment of Halitosis	15726413	
United States of America	Published	Egg Candling and Relocation Apparatus for Use with In Ovo Injection Machines	15686234	
United States of America	Published	Attenuated Pasteurella Multocida Vaccines & Methods of Making & Use Thereof.	15668946	
United States of America	Published	PARASITICIDAL COMPOSITIONS COMPRISING INDOLE DERIVATIVES, METHODS AND USES THEREOF	15632705	
United States of America	Published	Multi-chamber, Multi-formulation Fluid Delivery System	15620421	
United States of America	Published	Laser Ablation Machine for Labeling Cryogenically-Frozen Vials	15499127	
United States of America	Published	Powered Injection Device for Delivering Multiple Liquid Formulations, Including Vaccines	15487308	
United States of America	Published	PROCESS FOR THE PREPARATION OF ISOXAZOLINE COMPOUNDS	15480316	
United States of America	Published	HEARTWORM VACCINE, METHODS AND USES THEREOF	15480345	

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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Published	SINGLE OR DUAL TECHNOLOGY ANIMAL TAGS AND SYSTEM AND METHOD OF USING THE SAME	15474300	
United States of America	Published	LONG-ACTING INJECTABLE FORMULATIONS COMPRISING AN ISOXAZOLINE ACTIVE AGENT, METHODS AND USES THEROF.	15441297	
United States of America	Published	NEWCASTLE DISEASE VIRUS VECTORED AVIAN VACCINES	15434353	
United States of America	Published	Antioxidants Against Oxidative Stress During a Stressor Event	15423280	
United States of America	Published	ANTHELMINTIC DEPSIPEPTIDE COMPOUNDS	15378219	
United States of America	Published	Methods of Providing Grass Growth and Nematode Suitability Indices to Assist Determination of Timing of Parasiticide Treatment	15378729	
United States of America	Published	M Hyo Multivalent Vaccine and Uses Thereof	15378165	
United States of America	Published	Automated Caged Bird Spray Vaccination System	15292950	
United States of America	Published	HENDRA VIRUS RECOMBINANT COMPOSITIONS AND USES THEREOF	15233013	
United States of America	Published	Naphthyl-Or Isoquinoliny-Substituted Isothiazoline Compounds	14757414	
United States of America	Published	HIGH THROUGHPUT METHODS FOR VIRUS QUANTIFICATION	15215106	
United States of America	Published	Thiophene-Or Furan-Substituted Isothiazoline Compounds as Pesticides	14757930	
United States of America	Published	Inline Avian Vaccine Sprayer with Rapidly-Actuating Spray Nozzles	15160614	
United States of America	Published	Long-range Spray Vaccinator	15154082	

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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Published	BLUETONGUE VIRUS RECOMBINANT VACCINES AND USES THEREOF	15098350	
United States of America	Published	EXTENDED RELEASE INJECTABLE FORMULATIONS COMPRISING AN ISOXAZOLINE ACTIVE AGENT, METHODS AND USES THEROF	15092491	
United States of America	Published	ANTHELMINTIC COMBINATIONS AND METHODS OF USE THEREOF	15089282	
United States of America	Published	LONG-ACTING INJECTABLE FORMULATIONS COMPRISING AN ISOXAZOLINE ACTIVE AGENT, METHODS AND USES THEROF.	15054260	
United States of America	Published	Leptospira immunoprotective Proteins and Methods of Identification and Use Thereof	15050155	
United States of America	Published	EXPRESSION OF CHIMERIC KSAC PROTEIN AND METHOD OF PRODUCING SOLUBLE PROTEIN BY HIGH PRESSURE	15017486	
United States of America	Published	PARASITICIDAL ORAL VETERINARY COMPOSITIONS COMPRISING ISOXAZOLINE ACTIVE AGENTS, METHODS AND USES THEREOF	15009996	
United States of America	Published	ANTIBIOTIC-FREE PLASMID	14930710	
United States of America	Published	Recombinant NDV Antigen and Uses Thereof	12979677	
United States of America	Granted	Leishmania Vaccine Using Sand Fly Salivary Immunogen	14069406	9228002
United States of America	Granted	Leishmania Challenge Model	13841949	8906358
United States of America	Granted	PRODUCTION OF HEMAGGLUTININ-NEURAMINIDASE PROTEIN IN MICROALGAE	12980320	9012197

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<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Published	Mammalian Cell Lines Expressing Functional Nematode Acetylcholine Receptors, and Use thereof for High-Throughput Screening Assays	14849446	
United States of America	Published	Novel immunogenic formulations comprising linear or branched polyacrylic acid polymer adjuvants	15624405	
United States of America	Granted	ADJUVANT RABIES VACCINE WITH IMPROVED VISCOSITY PROFILE	13451667	9216213
United States of America	Granted	Hyperbaric Device and Methods for Producing Inactivated Vaccines and for Refolding/Solubilizing Recombinant Proteins	14851457	10080791
United States of America	Granted	RECOMBINANT AVIAN PARAMYXOVIRUS VACCINE AND METHOD FOR MAKING AND USING THEREOF	12860589	8486418
United States of America	Granted	Coccidial Vaccine and Methods of Making and Using Same	11/106,780	6998127
United States of America	Granted	Coccidial Vaccine and Methods of Making and Using Same	10/730,206	6908620
United States of America	Published	REASSORTANT BTV AND AHSV VACCINES	13917259	
United States of America	Published	RECOMBINANT VECTORS EXPRESSING ANTIGENS OF AVIAN INFLUENZA VIRUS AND USES THEREOF	15789936	
United States of America	Granted	MODIFIED LIVE (JMSO STRAIN) HAEMOPHILUS PARASUIS VACCINE	11648390	8404253
United States of America	Granted	PROCESS FOR PREPARING PESTICIDAL INTERMEDIATES	9572948	6258973
United States of America	Granted	Pesticides	10238902	6593328
United States of America	Granted	Pesticides	10060229	6500848
United States of America	Granted	Pesticides	9930946	6376520
United States of America	Granted	PYRAZOLE PESTICIDES	9404809	6432997

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Granted	AVERMECTIN B1 AND AVERMECTIN B1 MONOSACCHARIDE DERIVATIVES HAVING AN ALKOXYMETHYL SUBSTITUENT IN THE 4"-OR 4'-POSITION	12768280	8017589
United States of America	Granted	DERIVATIVES OF AVERMECTIN, AVERMECTIN MONOSACCHARIDE AND AVERMECTIN AGLYCON	11574588	7781411
United States of America	Granted	AVERMECTIN AND AVERMECTIN MONOSACCHARIDE DERIVATIVES SUBSTITUTED IN THE 4"-OR 4'-POSITION HAVING PESTICIDAL PROPERTIES	10543637	7678740
United States of America	Granted	AVERMECTIN AND AVERMECTIN MONOSACCHARIDE SUBSTITUTED IN THE 4"-AND 4'-POSITION RESPECTIVELY	10599671	7687470
United States of America	Granted	AVERMECTIN B1 AND AVERMECTIN B1 MONOSACCHARIDE DERIVATIVES HAVING AN ALKOXYMETHYL SUBSTITUENT IN THE 4"-OR 4'-POSITION	10539274	7737261
United States of America	Pending	PET CARE COMPOSITIONS	15774531	
United States of America	Pending	PET CARE COMPOSITIONS	15774534	
United States of America	Published	STORAGE AND DISPENSER DEVICE	15769664	
United States of America	Published	Live Attenuated Heterologous Vaccine for Leptospira	15763892	
United States of America	Published	RECOMBINANT HVT VECTORS EXPRESSING MULTIPLE ANTIGENS OF AVIAN PATHOGENS AND USES THEREOF	15840764	
United States of America	Published	ANTHELMINTIC COMPOUNDS AND COMPOSITIONS AND METHOD OF USING THEREOF	15544837	

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Published	PARASITICIDAL COMPOSITIONS COMPRISING FIPRONIL AND METHOPRENE SPOT-ON FORMULATION HAVING A HIGH FIPRONILCONCENTRATION	15522647	
United States of America	Pending	Borrelia burgdorferi prophylaxis	62663497	
United States of America	Pending	OSTEOARTHRITIS TREATMENT WITH MULTIPOTENT ADULT PROGENITOR CELLS	62670634	
United States of America	Pending	OSTEOARTHRITIS TREATMENT WITH MULTIPOTENT ADULT PROGENITOR CELLS	62692938	
United States of America	Pending	PROBIOTICS FOR ENHANCING THE HEALTH PERFORMANCE OF POULTRY	62691968	
United States of America	Pending	Anthelmintic Heterocyclic Compounds	62695656	
United States of America	Pending	STAND ALONE DISPENSING POUCH	62696715	
United States of America	Pending	HEALTH DEVICE FOR PETS AND METHODS THEREOF	62697562	
United States of America	Pending	PRODUCTION OF BIOLOGICAL AGENTS USING DETACHED ADHERENT CELLS	62733576	
United States of America	Pending	FMDV RECOMBINANT VACCINES AND USES THEREOF	62746593	
United States of America	Pending	FMDV RECOMBINANT VACCINES AND METHODS OF THEIR PRODUCTION	62746989	
United States of America	Pending	Ozone System and Methods for Producing Vaccines from Embryonated Eggs or Egg-Derived Cells	62760677	
United States of America	Pending	Indazolyicyanoethylamino Compound, Compositions of Same, Method Of Making, And Methods Of Using Thereof	62769850	
United States of America	Pending	Composition And Method For Controlling Atopic Dermatitis	62782309	

**Intellectual Property Rights - Schedule**

<b>Country Name</b>	<b>Application Status</b>	<b>App Title</b>	<b>App Number</b>	<b>Pat Number</b>
United States of America	Pending	Attenuated Bordetella bronchiseptica Strains, Oral Vaccines Containing the Attenuated Strains, and Methods of Making & Use Thereof	62788764	
United States of America	Pending	Attenuated Bordetella bronchiseptica Strains, Oral Vaccines Containing the Attenuated Strains, and Methods of Making & Use Thereof	62782289	
WO	Published	Pesticidal and Parasitocidal Vinyl-Isoxazoline Compounds	PCTUS1756130	
WO	Published	RECOMBINANT VECTORS EXPRESSING ANTIGENS OF AVIAN INFLUENZA VIRUS AND USES THEREOF	PCTUS1757741	
WO	Published	ANTHELMINTIC DEPSIPEPTIDE COMPOUNDS	PCTUS1761832	
WO	Published	Attenuated Swine Influenza Vaccines and Methods of Making and Use Thereof	PCTUS1764017	
WO	Published	RECOMBINANT HVT VECTORS EXPRESSING MULTIPLE ANTIGENS OF AVIAN PATHOGENS AND USES THEREOF	PCTUS1766139	
WO	Published	Method for Determining the Effectiveness of Treatment for the Prevention of Heartworm Disease	PCT/US18/17398	
WO	Published	Liquid Applicator for Delivering Vaccines	PCT/US18/18056	
WO	Published	CRYSTALLINE FORMS OF (S)-AFOXOLANER	PCTUS1826328	
WO	Published	Dual Active Parasitocidal Granule Compositions, Methods and Uses Thereof	PCTUS1839361	
WO	Published	Pesticidal Pyrazole-substituted Isoxazoline Compounds	PCTUS1846601	
WO	Pending	METHOD AND SYSTEM FOR TRACKING A PLURALITY OF ANIMALS WITH A PORTABLE COMPUTING DEVICE	PCTUS1849030	
WO	Pending	Streptococcus vaccines and uses thereof	PCTUS1849041	



# Intellectual Property Rights - Schedule

Country Name	Application Status	App Title	App Number	Pat Number
WO	Pending	METHOD AND SYSTEM FOR TRACKING ANIMALS AND ALERTING ANIMAL OWNERS OF LOST ANIMALS	PCTUS1852723	
WO	Pending	PARASITICIDAL COMPOSITIONS COMPRISING EPRINOMECTIN AND PRAZIQUANTEL, METHODS AND USES THEREOF	PCTUS1917143	
United States of America	Granted	P. Ariasi Polypeptides, P.Perniciosus Polypeptides and Methods of Use	10527500	7741437
United States of America	Granted	Method for producing the Flu Virus	12238740	7871807
United States of America	Granted	STAT6 EFFECTS ON LIVESTOCK ANIMAL GROWTH	12112752	7972790
United States of America	Pending	BAG	29656321	

Application Number 12/758,933 is a Continuation in-part of 11/584,775 (listed on page 17) Filing or 371(c ) date April 13, 2010 issued as Patent 8201518 is made part of this Assignment Agreement.