

Recent patents in infectious disease diagnostics and treatment

Patent number	Description	Assignee	Inventor	Date
US 9,157,098	Tyrosine-modified recombinant adeno-associated viral (rAAV) vectors as well as infectious virions, compositions and pharmaceutical formulations that comprise them, and methods of preparing and methods for using the disclosed tyrosine-phosphorylated capsid protein mutant rAAV vectors in a variety of diagnostic and therapeutic applications including <i>in vivo</i> and <i>ex vivo</i> gene therapy, and large-scale production of rAAV vectors.	University of Florida Research Foundation (Gainesville, FL, USA)	Zhong L, Zolotukhin S, Govindasamy L, Agbandje-McKenna M, Srivastava A	10/13/2015
US 9,150,631	Engineered molecular opsonins that may be used to bind biological pathogens or identify subclasses or specific pathogen species for use in devices and systems for treatment and diagnosis of patients with infectious diseases, blood-borne infections or sepsis.	President and Fellows of Harvard College (Cambridge, MA, USA)	Super M, Way JC, Ingber DE	10/6/2015
US 9,132,185	A novel infectious cDNA clone of porcine reproductive and respiratory syndrome virus (PRRSV), particularly for PRRSV strain VR2385; an improved DNA-launched reverse genetics system for PRRSV; infectious chimeric PRRSV viruses generated through DNA shuffling; modified live-attenuated virus vaccines (MLV) using DNA shuffled chimeric viruses; chimeric viral proteins produced through shuffled chimeric viruses; PRRSV antigens and subunit vaccines based on shuffled chimeric viral proteins; and a method of producing broadly protective PRRSV vaccines using DNA shuffling techniques.	Virginia Tech Intellectual Properties (Blacksburg, VA, USA)	Ni Y, Huang Y, Meng X-J	9/15/2015
US 9,109,009	Novel template-fixed beta-hairpin peptidomimetics of a specified formula having the property to act on the receptor CXCR7; useful in the treatment or prevention of diseases or conditions in the area of dermatological disorders, metabolic diseases, inflammatory diseases, fibrotic diseases, infectious diseases, neurological diseases, cardiovascular diseases, respiratory diseases, gastro-intestinal tract disorders, urological diseases, ophthalmic diseases, stomatological diseases, hematological diseases and cancer or the mobilization of stem cells.	Polyphor AG (Allschwil, Switzerland)	Gombert FO, Lederer A, Lowe R, Obrecht D, Romagnoli B, Zimmermann J, Patel K	8/18/2015
US 9,107,920	An extract obtainable from <i>Trigonella foenum-graecum</i> that is useful in the manufacture of, e.g., pharmaceutical compositions, disinfectants or preservation agents. The pharmaceutical may be used for the treatment or prevention of an inflammatory disease or an infectious condition.	V-Biotek Holding ApS (Copenhagen, Denmark)	Olsen JS	8/18/2015
US 9,102,738	Isolated monoclonal antibodies, particularly human monoclonal antibodies that specifically bind to PTK7 with high affinity; also, methods for detecting PTK7, as well as methods for treating various diseases, including cancer and infectious diseases, using anti-PTK7 antibodies.	E.R. Squibb & Sons (Princeton, NJ, USA)	Terrett JA, Lu L-S, Pan C	8/11/2015
US 9,102,727	Compositions and methods for diagnosing, prognosing and treating conditions that would benefit from modulating PD-1, PD-L1 and/or PD-L2 activity (e.g., persistent infectious diseases, autoimmune diseases, asthma, transplant rejection, inflammatory disorders and tumors) using novel human anti-PD-1, PD-L1 and PD-L2 antibodies.	Emory University (Atlanta, GA, USA), Dana-Farber Cancer Institute (Boston)	Freeman GJ, Ahmed R, Jones TD, Carr FJ, Gregson JP	8/11/2015
US 9,096,877	Fc region-containing polypeptides that exhibit improved effector function due to alterations of the extent of fucosylation, and to methods of using such polypeptides for treating or preventing cancer and other diseases; useful in preventing, treating or ameliorating one or more symptoms associated with a disease, disorder or infection where either an enhanced efficacy of effector cell function mediated by FcγR is desired (e.g., cancer, infectious disease) or an inhibited effector cell response mediated by FcγR is desired (e.g., inflammation, autoimmune disease).	MacroGenics (Rockville, MD, USA)	Johnson LS, Rainey GJA, Gorlatov S, Lerner L	8/4/2015
US 9,096,644	A substituted Norovirus capsid protein monomer, having only the P-domain, that includes a foreign antigen inserted into one or more of three surface loops present on each P-domain monomer by molecular cloning; useful in methods for diagnosing, immunizing and treating individuals infected with a foreign virus and as a carrier for development of vaccines against many infectious and noninfectious diseases.	Children's Hospital Medical Center (Cincinnati, OH, USA)	Tan M, Jiang X	8/4/2015
US 9,096,642	Immunosuppressive compounds capable of inhibiting the programmed cell death 1 (PD1) signalling pathway and peptide-based compositions for the treatment of cancer or the treatment of infections via immunopotentialiation caused by inhibition of immunosuppressive signalling induced by PD-1, PD-L1 or PD-L2 and therapies using them, immunopotential substrates included as the active ingredient.	Aurigene Discovery Technologies (Bangalore, India)	Sasikumar PGN, Ramachandra M, Vadlamani SK, Shrimali KR, Subbarao K	8/4/2015

Source: US Patent and Trademark Office (<http://www.uspto.gov/>); European Patent Office (<http://www.epo.org/>).

