

Recent patents in synthetic nucleic acids and proteins

Patent number	Description	Assignee	Inventor	Date
US 9,127,260	A synthetic phytase with elevated thermostability, elevated stability to acids at pH 2, elevated stability to pepsin and a broadened active pH range, as well as an isolated nucleic acid sequence coding for a synthetic phytase, the use of the phytase in an animal feed for reducing the phosphate content in the slurry, and animal feed additives and animal feeds comprising the synthetic phytase.	BASF (Ludwigshafen, Germany)	Haefner S, Welzel A, Thummer R	9/8/2015
US 9,109,226	Compositions and methods for inhibiting a polymerase from replicating non-target DNA at a temperature below the amplification reaction temperature. The inhibitor is a synthetic nucleic acid that is single stranded but folds to form at least one double-stranded region designed to melt at a temperature that is lower than the amplification reaction temperature.	New England Biolabs (Ipswich, MA, USA)	Ong J, Johnson D, Evans TC, Greenough L	8/18/2015
US 9,068,219	Methods and compositions for introducing miRNA activity or function into cells using synthetic nucleic acid molecules, and methods and compositions for identifying miRNAs with specific cellular functions that are relevant to therapeutic, diagnostic and prognostic applications wherein synthetic miRNAs and/or miRNA inhibitors are used in library screening assays.	Asuragen (Austin, TX, USA)	Brown D, Ford L, Cheng A, Jarvis R, Byrom M, Ovcharenko D, Devroe E, Kelnar K	7/30/2015
US 9,085,798	Oligonucleotide constructs, sets of such oligonucleotide constructs and methods of using such oligonucleotide constructs to provide validated sequences or sets of validated sequences corresponding to desired regions of interest (ROIs); useful in synthetic biology, quantitative nucleic acid analysis, polymorphism and/or mutation screening, etc.	Prognosis Biosciences (San Diego)	Chee MS	7/21/2015
US 9,067,964	Use of at least one nucleic acid-based nuclear localization signal including a natural or synthetic m.sub.3G-CAP, shown to increase transmembrane transport of a molecular cargo, in particular large molecules, into the nucleus.	Oligomer Sciences (Djursholm, Sweden)	Smith E, Moreno P, Stromberg R, Wenska M	6/30/2015
US 9,005,939	An isolated, recombinant or synthetic polynucleotide encoding a polypeptide with protoilludene synthase activity and comprising a specific sequence, as well as a method for the production of melleolides employing the polynucleotide or polypeptide of the invention.	Fraunhofer Society for the Advancement of Applied Research (Munich)	Jennewein S, Engels B, Grothe T, Stadler M	4/15/2015
US 8,986,953	Methods and compositions using synthetic molecules and genetically encoded polypeptides to generate macrocyclic peptide-containing molecules with a hybrid peptidic/nonpeptidic backbone; can be used to increase the structural diversity of ligand libraries as well as to facilitate the functional screening of these libraries to identify compounds with desired activity properties.	University of Rochester (Rochester, NY, USA)	Fasan R, Frost JR, Smith JM, Vitali FC	3/24/2015
US 8,946,399	A pathogen-inducible synthetic promoter suitable for regulating the transcription of a nucleic acid, including a minimal promoter, characterized in that the minimal promoter includes a sequence motif that is disposed downstream from a TATA region and in front of a transcription starting point that is located on the minimal promoter and at which transcription of the nucleic acid to be regulated starts.	KWS Saat (Einbeck, Germany)	Schmidt K	2/3/2015
US 8,945,928	A novel array method for nucleic acid sequence detection with improved specificity that allows for detection of genetic variation, from simple SNPs to more complex sequence variation patterns. The array is comprised of short synthetic oligonucleotide probes attached to a solid surface hybridized to single-stranded targets.	Gunning KB, Behlke MA	Gunning KB, Behlke MA	2/3/2015
US 8,945,550	Antibodies—including chimeric human antibodies, recombinant antibodies, synthetic antibodies and the nucleic acids encoding them, and methods for making and using these immunoglobulins—providing recombinant and synthetic polypeptide and nucleic acid embodiments of these polypeptides and/or antibodies. Also, polypeptides comprising, or consisting of, consensus human framework regions, or independently consensused frameworks (ICFs), nucleic acids encoding them, and libraries and kits comprising these ICFs and/or antibodies of the invention, individually and in combinatorial libraries and combinations.	MMRGlobal (Los Angeles)	Frey G, Kimmel BE, Anderson A	2/3/2015

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