

# Patent Licensing Opportunities

## Patents/Pending Applications Pertaining to Diagnostic

Publication No.	Title	Filing Date	Indication	Summary
IN405747B	In-vitro detection of herpes simplex virus	2014-11-05	Herpes simplex virus	A testing kit for the in-vitro detection of Human Herpes Simplex Virus 1 (HSV-1) and Virus 2 (HSV-2) using multiplex real-time PCR, comprising specific primers and probes designed for high sensitivity and specificity.
IN435183B	A diagnostic device and method for differentiating asthma-copd overlap syndrome (aco) from asthma and copd	2020-08-19	Asthma, COPD	A method for preparing an electrochemical immunosensor on a gold electrode for the early and accurate diagnosis of Asthma-COPD Overlap Syndrome (ACO) utilizing a self-assembled monolayer (SAM) and Interleukin-4 (IL-4) as a biomarker.
IN471729B	A paper disc based method for determining the drug susceptibility of mycobacterium tuberculosis	2020-04-29	Tuberculosis	A novel method utilizing paper discs to determine the drug susceptibility of Mycobacterium tuberculosis, particularly against rifampicin and isoniazid, within a rapid timeframe.
IN348323B	In-vitro detection of human parvovirus 4	2014-11-05	Human parvovirus 4	The invention relates to primers and probes designed for the in-vitro detection of human parvovirus 4, utilizing specific nucleotide sequences that enable high detection sensitivity across all genotypes.
IN438631B	Sulphadoxine and pyrimethamine (sp) resistance in plasmodium falciparum, through loop mediated isothermal amplification (lamp)	2018-10-25	Vector Borne Diseases	This invention relates to a method for detecting resistance to Pyrimethamine and Sulphadoxine in the malaria-causing parasite Plasmodium falciparum using specific primers designed for loop-mediated isothermal amplification (LAMP)
IN429781B	Assay to investigate multiple genes as host genetic risk markers for enterovirus71 infection severity	2018-06-21	Enterovirus A71 infections	This invention relates to multiplex primers designed for a non-diagnostic assay aimed at investigating multiple single nucleotide polymorphisms (SNPs) as host genetic risk markers for susceptibility to Enterovirus A71.

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IN380417B	Rapid detection of drug resistant plasmodium falciparum through a novel approach using loop mediated isothermal amplification	2017-03-17	Vector Borne Diseases	A novel method for detecting chloroquine resistance in Plasmodium falciparum through loop-mediated isothermal amplification (LAMP) utilizing specifically designed primers targeting the Pfcrf gene.
IN327506B	Loop mediated isothermal amplification (lamp) assay for a reliable and rapid diagnosis of leishmania infection	2014-02-06	Vector Borne Diseases	This invention relates to a set of primers specifically designed for Loop Mediated Isothermal Amplification (LAMP) assay aimed at detecting multiple species of Leishmania, including L. donovani and L. tropica, with enhanced sensitivity and efficiency.
IN426216B	A novel molecular diagnostic technique for detecting the different species of plasmodium	2015-01-30	Vector Borne Diseases	A novel method for identifying species of Plasmodium, including P. falciparum, P. vivax, P. malariae, and P. ovale, through genomic DNA isolation, mitochondrial gene amplification, restriction enzyme digestion, and analysis
IN257150B	A primer set and a process for the detection of I3 larval stage of wuchereria bancrofti	2006-12-26	Vector Borne Diseases	A method for detecting the L3 larval stage of the filarial parasite Wuchereria bancrofti in mosquito vectors, specifically Culex quinquefasciatus, utilizing a set of specific primers and a series of molecular biology techniques.
IN202111036808A	A spectroscopic method for assessing the mitochondrial dysfunction	2021-08-13	Mitochondrial dysfunction	An in-vitro method for assessing mitochondrial dysfunction in biological samples through simultaneous fluorescence and photoacoustic spectroscopy, utilizing a 281 nm laser for excitation.
IN201911025717A	A set of signaling factors for predicting malaria severity and methods thereof	2019-06-27	Malaria	A set of signaling factors for determining the severity of malaria, comprising Interleukin 10 (IL-10), C-C Motif Chemokine Receptor 8 (CCR8), Interleukin 8 (IL-8), Basic Leucine Zipper ATF-like Transcription Factor (BATF), and Signal Transducer and Activator of Transcription 1 (STAT1), where differential levels of these factors categorize malaria into uncomplicated and severe forms.

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## Patents/Pending Application Pertaining to Vaccine

Patent No.	Title	Filing Date	Indication	Summary
IN283894B	A novel salmonella typhi protein as subunit vaccine	2010-03-05	GI Infection	A recombinant protein vaccine targeting Salmonella Typhi, comprising the polypeptide t2544 and a pharmaceutically acceptable carrier, optionally emulsified with adjuvants.
IN502420B	A multi-serotype outer membrane vesicles (momv) of shigellae as a novel candidate vaccine	2013-05-31	Shigellosis	A novel vaccine formulation comprising outer membrane vesicles (oMVs) from six serotypes of Shigella, designed to provide broad-spectrum protection against shigellosis.
IN201711011707A	A bivalent outer membrane vesicles (bomvs) based vaccine against typhoidal salmonellae	2017-03-31	Enteric Fever	A vaccine consortium comprising isolated Outer Membrane Vesicles (OMVs) from two distinct strains of typhoidal Salmonella species, specifically Salmonella Typhi C-6953 and Salmonella Paratyphi A C-6915, designed for the treatment of enteric fever.

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## Patents/Pending Applications Pertaining to Devices

Publication No.	Title	Filing Date	Indication	Summary
IN514056B	A non-invasive system for detection of analytes and applications thereof	2020-02-25	Heavy metal Poisoning	A system designed for the rapid and non-invasive detection of lead in various biological and environmental samples, utilizing a colorimetric method for qualitative assessment.
IN484477B	A squa-tool apparatus	2019-10-24	Pregnancy	A squa-tool apparatus designed to provide adjustable support for pregnant women in a squatting position during childbirth, featuring an upper frame with a seat, armrests, backrest, and a lower frame with telescopic legs for height adjustment.
IN554978B	High precision surgical robotic platform for cooperative and teleoperated minimal invasive surgeries	2019-01-11	Surgical Platforms	A robotic surgical system designed for performing minimally invasive surgeries (MIS), specifically targeting high precision and tremor-free applications such as retinal surgeries.
IN462107B	Neuro-drill-stencil-trainer	2014-10-08	Neurosurgery	A device designed to assist in the training of neurosurgical drilling procedures by providing stencils for accurate demarcation on both flat and curved bone surfaces.
IN501025B	Neuro-endoscope box trainer	2014-10-08	Neurosurgery	An innovative electro-mechanical box trainer designed specifically for neurosurgery training, featuring a motorized peg plate, rubberized working port, and integrated auxiliary camera for skill evaluation.
IN202211035303A	Device and method for design and development of a medical glove for hand tremor management caused by parkinson's disease	2022-06-20	Parkinson's Disease	A device designed to manage hand tremors, particularly for patients with Parkinson's disease, utilizing a glove that inflates and deflates based on detected tremor intensity, incorporating EMG signal acquisition and pressure regulation mechanisms.

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## Patents/Pending Applications Pertaining to Therapeutic

Patent No.	Title	Filing Date	Indication	Summary
IN493164B	Tricompartmental microcarriers for management of parkinson's disease	2021-09-04	Parkinson's Disease	A tricompartmental microcarrier system designed for the management of Parkinson's disease, featuring distinct polymer matrices for controlled release of Levodopa, Carbidopa, and Entacapone.
IN371495B	Rnai agent for inhibition of chikungunya virus	2013-07-02	Chikungunya virus	This invention relates to RNA interference (RNAi) agents specifically designed to inhibit the Chikungunya virus (CHIKV) by targeting its E2 and nsP1 genes through the use of small interfering RNA (siRNA) sequences.
IN540527B	Herbal formulation for the treatment of menopausal syndrome	2020-06-18	Menopausal Syndrome	A herbal formulation comprising lyophilized powder of Cynodon dactylon and Foeniculum vulgare for the management of menopausal syndrome.
IN458643B	A novel pro-apoptotic peptide for selective elimination of malignant cells	2018-01-31	Cancer	This invention relates to a synthetic pro-apoptotic peptide designed for the targeted elimination of tumor cells, specifically through the activation of the Protease Activated Receptor 1 (PAR1). The peptide has a sequence of N-PFISED-COOH when independent and PFISED when part of PAR1, which is activated by Vibrio cholerae hemagglutinin protease (HAP).
IN402534B	Cp an antimicrobial peptide, a process of preparation, and a method of attenuating microbes thereof	2018-01-03	Gram-Negative bacterial infection	The invention relates to a novel antimicrobial peptide, designated as CP, with the sequence GGLRRLGRKILRAVKKYG, designed for use in various forms such as injectable solutions, tablets, gels, and creams. This peptide specifically targets Gram-negative bacteria, including Escherichia coli, Pseudomonas aeruginosa, and Klebsiella pneumoniae, while exhibiting negligible hemolytic activity.
IN435514B	Mapcon-a consensus based myeloid antimicrobial peptide	2017-11-17	Gram-Negative bacterial infection	This invention relates to a novel antimicrobial peptide named MAPCON, which comprises the amino acid sequence RGLRRLGRKIKKGLKKYG (SEQ. ID. NO.: 1) and is specifically designed to target Gram-negative bacteria without causing hemolytic effects.

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Publication No.	Title	Filing Date	Indication	Summary
IN333035B	Alginate chitosan nano formulations of ompa and a method related thereof	2016-05-02	GI Infection	A novel formulation for an improved immunogen delivery system utilizing alginate-chitosan nanoparticles encapsulating OmpA protein from Shigella species.
IN452521B	Nano-engineered biodegradable polymer-composite for bone-sift tissue fixation application	2016-04-13	Bone and Tissue Regeneration	A biodegradable polymer composite designed for orthopedic applications, specifically for the fixation of soft tissue injuries and small bone fractures, utilizing a blend of Magnesium Oxide, silk fibroin, and a bioresorbable polymer matrix
IN431100B	A peptide to neutralize lipopolysaccharide molecule	2015-02-18	Sepsis	A peptide designed to bind and neutralize lipopolysaccharide (LPS), consisting of a seven-residue sequence featuring a central PWWP motif flanked by positively charged amino acids.
IN310696B	Formulation with recombinant human lung surfactant protein sp-d for sexually transmitted infections including hiv	2010-02-12	HIV	A formulation comprising recombinant human surfactant protein D (rhSP-D) targeting HIV, consisting of specific amino acid sequences and a buffered solution.
IN396698B	A composition for the treatment of liver diseases	2014-09-15	Liver disease	A novel composition combining silymarin, fulvic acid, and piperine aimed at improving the bioavailability and bioefficacy of silymarin for liver disease treatment.
IN269659B	A composition for selectively eliminating a microorganism or a group of microorganisms from biological sample	2008-12-12	Tuberculosis	A composition for selectively eliminating microorganisms from biological samples, particularly for isolating Mycobacterium tuberculosis, comprising phagebiotics supplemented with phage lysin, with a titer range of $1 \times 10^7$ pfu/ml to $1 \times 10^{11}$ pfu/ml.

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IN3163/DEL/2012A	Nano composites based on visible light tio2 and poly methyl methacrylate (pmma) denture base material for effective antimicrobial and self cleansing activity	2012-10-10	Bacterial Infection	This invention relates to a nanocomposite comprising visible light activated Titania nanoparticles exhibiting antimicrobial properties, particularly against Staphylococcus aureus, integrated with polymethyl methacrylate (PMMA) for use in dental applications.
IN2775/DEL/2012A	A herbal formulation for treatment of typhoid fever and preparation thereof	2012-09-06	Typhoid	A herbal composition for the treatment of typhoid fever comprising extracts from plants such as Allium sativum, Ocimum sanctum, Piper nigrum, Pueraria tuberosa, Shorea robusta, Terminalia bellirica, Tinospora cordifolia, and Zingiber officinale, either individually or in combination.
IN2435/DEL/2013A	A compound, transitmycin, effective against bacterial and viral pathogens	2013-08-16	Bacterial and viral infection	This invention relates to Transitmycin, a compound effective against a range of bacterial and viral pathogens, particularly drug-resistant strains of Mycobacterium tuberculosis and HIV
IN202111034479A	Phytopharmaceutical formulation with natural inhibitors of 3clpro and spike glycoprotein of sars-cov-2	2021-07-30	SARS-CoV-2	A phytopharmaceutical formulation for the treatment and management of SARS-CoV-2 infections comprising phytoactive constituents selected from pelargonin, berbaminine, and quercetin-3-O-rhamnoside, either individually or in combination.

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## Patents/Pending Applications Pertaining to Miscellaneous Category

Publication No.	Title	Filing Date	Indication	Summary
IN348281B	Gluten and casein free cookie	2016-06-15	Food and Nutrition	An innovative formulation of gluten and casein free cookies specifically designed for autistic children, utilizing a blend of alternative flours and nutrient-rich ingredients.
IN561287B	A surface active, compatibilized and biodegradable electrospun mat	2022-02-23	Bone and Tissue Regeneration	A surface-active, compatibilized, and biodegradable electrospun mat (EM) comprising a diblock copolymer of Poly(L-lactide-co-ε-caprolactone) (PLCL) and a polylactic acid (PLA)/poly(ε-caprolactone) (PCL) blend in a 70:30 ratio used for various biomedical application.
IN421140B	A novel fumigation methodology for antibacterial action	2016-05-11	Generalised	A method for fumigation utilizing a specially designed fumigation chamber and herbal fumigant mixtures to achieve antibacterial effects against a wide range of pathogenic bacteria.
IN536188B	A bioactive composite deposited osteoimplant and a process for preparing the same	2020-07-17	Osseointegration	A bioactive composite comprising Zr, Sr, Si substituted hydroxyapatite impregnated with Quercetin, specifically designed for orthopedic applications.
IN490754B	Structure of eco-friendly mosquito larvae trapping device	2020-05-01	Vector Borne Diseases	A device designed to capture mosquito eggs and larvae using a breeding tray, conical barriers, and a 'U' shaped collection tube, all enclosed in a transparent casing.
IN543698B	Device for developing germfree and gnotobiotic mosquitoes	2019-12-04	Vector Borne Diseases	A device designed for the rearing and incubation of germfree and gnotobiotic insects, particularly mosquitoes, featuring a cuboid support structure with a non-porous cover, closure device, and a neck provision for a porous element that allows sterilized air to pass through.

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Publication No.	Title	Filing Date	Indication	Summary
IN467810B	A process for the chemical synthesis of alpha hydroxy succinamic acid; a herbal antidiabetic compound isolated from e. jambolana	2019-07-26	Diabetes	The invention pertains to the field of synthetic organic chemistry, specifically focusing on the efficient preparation of 4-amino-2-hydroxy-4-oxobutanoic acid, which serves as an active pharmaceutical ingredient for managing type 2 diabetes mellitus and its complications.
IN434799B	Fortified soy-yogurt composition for anti-hypercholesterolemic effect	2019-05-20	Food and Nutrition	A fortified non-dairy yogurt composition comprising 90 to 98 wt % of soy milk and 2 to 10 wt % of bitter melon seed oil, designed for lactose-intolerant consumers.
IN513045B	Poliovirus receptor (pvr/cd155) knockout cells derived from rd (human rhabdomyosarcoma) cell line by crispr	2018-09-14	Polio	The present invention provides cell lines comprising said modified gene and method of producing the same using clustered regularly interspaced short palindromic repeats (CRISPR) and CRISPR-associated protein 9 (CRISPR-Cas9) system. The said cell line is refractory (non-permissive) to poliovirus and susceptible to most enteroviruses and many other human viruses
IN543446B	Wireless mouse and keyboard device for handicapped	2018-08-31	Disability	A device designed to assist handicapped or disabled individuals in using computer systems through a spectacle-mounted interface.
IN462167B	A combustible coil composition	2017-08-08	Vector Borne Diseases	A novel combustible coil composition utilizing castor seed cake as an active ingredient for effective mosquito control.
IN451267B	An improved alcoholic composition and methodology therefor	2016-03-08	Generalised	An innovative alcoholic beverage derived from fermented Kombucha tea and black tea, enriched with anti-oxidant properties.

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IN391961B	A process for the preparation of a fibrinolytic enzyme	2014-01-06	Generalised	A novel process for the preparation of a fibrinolytic enzyme derived from <i>Bacillus sphaericus</i> serotype H5a 5b, achieving a yield improvement of approximately 7 times.
IN539301B	Plant extract based composition useful for leishmania promastigotes	2013-04-26	Vector Borne Diseases	A novel culture medium for the cultivation of <i>Leishmania</i> promastigotes, utilizing plant extracts from various species, designed to be serum-free and devoid of animal products.
IN344829B	A process for the production of cyclosporin-a	2013-03-12	Autoimmune Diseases	A novel process for producing Cyclosporin-A (Cyc-A) using the fungus <i>Tolypocladium</i> sp., strain NRRL No. 18950, involving specific nutrient mediums and treatment steps to enhance yield.
IN435940B	A process for the preparation of an eco-friendly dehairing protease enzyme from <i>Bacillus</i> sp. for leather processing	2012-08-27	Leather Dehairing	A novel process for producing an eco-friendly protease enzyme from <i>Bacillus thuringiensis</i> var. <i>israelensis</i> , aimed at replacing toxic chemicals in leather processing.
IN202211031669A	A method for identification and classification of proteins based on autofluorescence	2022-06-02	Generalised	A method for identification and classification of proteins based on autofluorescence, utilizing machine learning algorithms for enhanced accuracy
IN202111049722A	Fever tracking method by fever tracker app for health workers	2021-10-29	Fever	A comprehensive fever tracking system designed to enhance malaria surveillance through mobile technology, enabling health workers to register, monitor, and report fever cases effectively.

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