

GLOSSARY OF TECHNICAL TERMS

This glossary contains explanations of certain technical terms used in this document in connection with our Group and its business. Such terminology and meanings may not correspond to standard industry meanings or usages of those terms.

“5-HT _{1B/1D} receptor”	5-HT _{1B/1D} receptor is a serotonin receptor subtype crucial for migraine treatment
“5-HT ₃ receptor”	The 5-HT ₃ receptor is a unique, ligand-gated ion channel activated by serotonin (5-HT), it opens to allow cations (Na ⁺ , K ⁺ , Ca ²⁺) to flow
“α ₂ -adrenergic receptor”	α ₂ -adrenergic receptor is G protein-coupled receptor activated by norepinephrine and epinephrine, primarily acting as a negative feedback system to reduce neurotransmitter release from sympathetic nerves, leading to decreased blood pressure, sedation, and pain relief
“adverse effect”	any undesirable or harmful outcome that occurs in association with the administration of a drug or medical treatment, regardless of whether it is considered related to the product
“adverse event”	any untoward medical occurrence in a patient or clinical investigation subject administered a drug or other pharmaceutical product during clinical trials, which does not necessarily have a causal relationship with the use of drug or product
“agonist”	a substance that binds to and activates a specific receptor and trigger a physiological response
“anesthesiology”	a medical specialty concerned with the study and practice of anesthesia and perioperative care, including the administration of agents that induce loss of sensation or consciousness, the management of pain, and the monitoring and support of vital functions during surgical or diagnostic procedures
“antagonist”	a substance that binds to a receptor without activating it, thereby blocking or inhibiting the action of an agonist or a naturally occurring molecule; an antagonist prevents or reduces a biological response by occupying the receptor and preventing its activation
“antiemetic”	a drug or substance that prevents or relieves nausea and vomiting
“API”	active pharmaceutical ingredient, the substance in medicine that produce the intended therapeutic effect
“arrhythmias”	abnormalities in the rate or rhythm of the heartbeat, occurring when the electrical impulses that coordinate heartbeats function improperly, causing the heart to beat too fast (tachycardia), too slow (bradycardia), or irregularly
“basal ganglia neuron”	Basal ganglia neurons control voluntary movement, learning, habits, and emotions by filtering motor signals from the cortex, acting like a “gate” to start, stop, and refine actions, and inhibiting competing movements, using glutamate and dopamine as key neurotransmitters, with damage leading to disorders like Parkinson’s
“BBB”	blood-brain barrier, a highly selective biological barrier that regulates what substances can pass from the bloodstream into the brain tissue
“bioavailability”	the percentage of an administered drug that reaches the systemic circulation
“biocompatible”	describes a material or substance that is compatible with living tissue and does not produce a toxic, immunological, or injurious response when introduced into the body
“chemotherapy”	the therapeutic use of chemical agents to treat disease, particularly the administration of one or more cytotoxic drugs to destroy or inhibit the growth and division of malignant cells in the treatment of cancer

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“‘Class 2.2’ drugs”	drugs that contain known active ingredients with new dosage form (including new drug delivery system), new formulation process or new route of administration, and have significant clinical advantages, as defined in <i>Requirements for Registration Classification and Application Dossiers of Chemical Drugs</i> (《化學藥品註冊分類及申報資料要求》) issued by the NMPA on 29 June 2020
“CMC”	chemistry, manufacturing and controls, being procedures used to assess the physical and chemical characteristics of drug products for ensuring quality and consistency during manufacturing
“CNS”	central nervous system, the part of the nervous system consisting primarily of the brain and spinal cord
“CTCAE”	Common Terminology Criteria for Adverse Events, a standardized system developed by the U.S. National Cancer Institute (NCI) for classifying and grading the severity of any unfavourable and unintended sign, symptom or disease temporally associated with the use of a medical treatment or procedure which occurred during clinical trials or medical treatments but may or may not be considered related to the medical treatment or procedure. The severity was categorized into 5 grades, ranging from Grade 1 (i.e. mild; asymptomatic or mild symptoms; clinical or diagnostic observations only; intervention not indicated) to Grade 5 (i.e. death related to the adverse events)
“DHMP”	Dexmedetomidine Hydrochloride Microneedle Patch
“dissolving microneedle”	a type of microneedle composed of biodegradable or water-soluble materials that penetrates the outer layer of the skin and dissolves after insertion, releasing the incorporated drug or active substance into the underlying tissue
“double-blind”	with respect to a clinical trial or study, where neither the patients nor the researchers know who is receiving a placebo and who is getting the treatment in which the objective is primarily to prevent bias and ensure the validity of the results
“dysphagia”	a medical condition characterized by difficulty or discomfort in swallowing
“excipient”	an inactive substance formulated together with the API in a drug product to facilitate manufacturing, administration, stability, or bioavailability
“first-pass metabolism”	the metabolic process by which the concentration of a drug is significantly reduced before it reaches the systemic circulation, typically occurring in the liver or intestinal wall after oral administration
“formulation”	the composition and preparation of a drug product, including the API(s) and excipients, designed to ensure the product’s stability, safety, efficacy, and suitability for administration
“GCP”	Good Clinical Practice, a standard for the designing, conducting, monitoring, recording, auditing, analysis, and reporting of clinical trials, intended to ensure that the data and reported results are credible and accurate, and that the rights, integrity, and confidentiality of trial subjects are protected
“GIP”	glucose-dependent insulintropic polypeptide, a hormone produced in response to nutrient intake, especially glucose and fat
“GLP-1”	glucagon-like peptide-1, a hormone produced in response to nutrient intake, especially glucose, which helps regulating blood sugar

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“GMP”	Good Manufacturing Practice, a system for ensuring that products are consistently produced and controlled according to quality standards, which is designed to minimize the risks involved in any pharmaceutical production that cannot be eliminated through testing the final product; it is also the practice required in order to conform to the guidelines recommended by agencies that control the authorization and licensing of the manufacture and sale of pharmaceutical products
“hemodynamic”	relating to the flow and movement of blood within the circulatory system
“IND”	Investigational New Drug, being drug or biological product that has not been approved for general use by the regulatory authority
“IND application”	a request for authorization from regulatory authority to administer an investigational drug or biological product to human
“inhibitor”	substance that decreases or prevents the activity of a specific enzyme, receptor, or other biological target, thereby reducing or blocking a particular biochemical or physiological process
“ <i>in situ</i> ”	in biomedical and pharmaceutical contexts, refers to experiments, measurements, or biological phenomena observed within the natural environment of the cells or tissues, rather than in an artificial or external setting
“intracerebral”	within the brain
“matrix”	a structural network or medium in which components are embedded, supported, or dispersed; in pharmaceutical and biomedical contexts, a matrix often denotes the material framework of a drug delivery system, such as a polymer or hydrogel, that encapsulates or controls the release of an active ingredient
“microchannel”	a microscale passage or channel, typically with dimensions in the range of micrometers, designed to control or facilitate the movement of fluids, particles, or molecules
“microneedle”	a microscale needle, typically having a diameter of several hundreds of micrometers and lengths ranging from hundreds of micrometers to the millimeter scale, designed to penetrate the outermost layer of the skin (stratum corneum) without reaching deeper pain receptors
“mucosa”	the moist tissue lining various body cavities and passages that communicate with the external environment, such as the nasal cavity, oral cavity, gastrointestinal tract, and respiratory tract; the mucosa consists of epithelial cells, connective tissue, and mucus-secreting glands, and serves to protect underlying tissues, facilitate absorption, and enable secretion
“multi-center”	refers to a clinical study or trial conducted simultaneously at two or more independent investigational sites, following a common protocol and coordinated oversight
“NDA”	New Drug Application, the formal submission made by a pharmaceutical company to the regulatory authority of the relevant jurisdiction for approval to market a new drug in that jurisdiction
“nucleic acid”	a biological macromolecule that carries genetic information and is composed of nucleotide subunits linked in a chain
“neurodegenerative disease”	a disease characterized by the progressive loss of structure or function of neurons, leading to gradual impairment of the nervous system, resulting in declining motor, cognitive, or sensory abilities; common examples include Alzheimer’s disease, Parkinson’s disease, amyotrophic lateral sclerosis (ALS), and Huntington’s disease

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“obstructive sleep apnea”	a sleep disorder characterized by repeated episodes of partial or complete obstruction of the upper airway during sleep
“‘Off’ episode”	a period of re-emergence or worsening of symptoms of Parkinson’s disease that occurs when the plasma concentration of medication falls below the therapeutic level, and the effect of medication wears off
“olfactory”	relating to the sense of smell
“olfactory region”	the specialized area located in the upper part of the nasal cavity that contains the olfactory epithelium and sensory neurons responsible for detecting odors; this region provides a direct anatomical connection between the nasal cavity and the brain via the olfactory nerve
“oncology”	branch of medicine that deals with the prevention, diagnosis, and treatment of cancer
“peak plasma concentration”	the maximum concentration of a drug observed in the plasma after administration
“peptide”	a short chain of amino acids linked by peptide bonds, shorter than proteins (typically 2-50 amino acids), that can serve various biological functions including hormones, neurotransmitters, and antimicrobial agents
“peripheral tissue”	the tissues and organs located outside the central nervous system, including muscles, skin, glands, and internal organs
“pharmacodynamics”	the study of how a drug affects an organism, which, together with pharmacokinetics, influences dosing, benefit, and adverse effects of the drug
“pharmacokinetics”	the study of how the body interacts with administered drug over the entire duration of exposure; this field generally examines four key parameters: absorption, distribution, metabolism, and excretion
“Phase I” or “Phase I clinical trial(s)”	study in which a drug is introduced into healthy human subjects or patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion, and if possible, to gain an early indication of its effectiveness. Phase I clinical trials can be divided into Phase Ia and Phase Ib clinical trials. Phase Ia typically involves dose-escalation studies, while Phase Ib generally focuses on combination therapy or dose-expansion studies
“Phase II” or “Phase II clinical trial(s)”	study in which a drug is administered to a limited population to identify possible adverse effects and safety risks, preliminarily evaluate the efficacy of the product for specific targeted diseases and determine dosage tolerance and optimal dosage
“Phase III” or “Phase III clinical trial(s)”	study in which a drug is administered to an expanded patient population generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to provide adequate information for the labeling of the product
“placebo”	a medical treatment or preparation with no specific pharmacological activity
“placebo-controlled”	refers to a clinical study design in which the effects of an investigational drug or treatment are compared against a placebo, an inactive substance designed to resemble the test product but without therapeutic effect
“pulmonary”	relating to the lungs or the respiratory system
“QbD”	a systematic approach in pharmaceutical development to ensure product quality by understanding and controlling processes
“receptor”	a region of tissue, or a molecule in a cell membrane, which responds specifically to a particular signal, that is any of a neurotransmitter, hormone, antigen, or other substance

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“sedation”	the administration of drugs or agents to induce a state of calmness, relaxation, or reduced awareness, often used to relieve anxiety and facilitate medical or surgical procedures
“SGLT2”	sodium-glucose cotransporter 2, a protein in the kidney which reabsorb glucose back into the bloodstream
“stratum corneum”	the outermost layer of the epidermis, composed primarily of dead, flattened corneocytes embedded in a lipid matrix
“subcutaneous”	refers to the tissue layer beneath the skin (dermis) and above the muscle; in the context of drug administration, it refers to a route where the drug or substance is injected into the tissue layer between the skin and muscle
“superficial dermis”	the upper layer of the skin (dermis) located just beneath the epidermis, composed primarily of loose connective tissue, capillaries, and sensory nerve endings
“suspension”	a pharmaceutical dosage form consisting of fine solid particles dispersed throughout a liquid medium, in which the solid is not fully dissolved
“systemic”	in pharmacology, systemic delivery or exposure occurs when a drug enters the bloodstream and circulates throughout the body
“ $T_{\max}$ ”	the time at which the peak plasma concentration of a drug is observed after administration
“transdermal”	the route of drug delivery across the skin into the systemic circulation, where the drug penetrates the skin layers and enters the bloodstream to produce a systemic therapeutic effect
“trigeminal”	relating to the trigeminal nerve, which is the largest cranial nerve and responsible for sensation in the face and motor functions such as biting and chewing; in drug delivery, the trigeminal pathway refers to the route through which intranasally administered drugs may reach the central nervous system, bypassing the blood–brain barrier
“type II diabetes”	a metabolic disorder characterized by insulin resistance and relative insulin deficiency, leading to elevated blood glucose levels (hyperglycemia); type II diabetes is commonly associated with obesity, sedentary lifestyle, and genetic factors
“vasoconstrictor”	a substance that causes narrowing of blood vessels by contracting the smooth muscle in the vessel walls, resulting in reduced blood flow and increased blood pressure