



Glossary of terms

100 points clinical response

Percentage of patients achieving a 100-point decrease in CDAI score during a clinical trial in CD patients

ACR

American College of Rheumatology

ACR20 (ACR 20/50/70)

American College of Rheumatology 20% response rate signifies a 20% or greater improvement in the number of swollen and tender joints as well as a 20% or greater improvement in three out of five other disease-activity measures. ACR50 and ACR70 reflect the same, for 50% and 70% response rates, respectively

ADAMTS-5

ADAMTS-5 is a key enzyme involved in cartilage breakdown (Larkin 2015)

ADS

American Depositary Share; Galapagos has a Level 3 ADS listed on Nasdaq with ticker symbol GLPG and CUSIP number 36315X101. One ADS is equivalent to one ordinary share in Galapagos NV

AFM

Dutch Authority for the Financial Markets

Anemia

Condition in which the patient has an inadequate number of red blood cells to carry oxygen to the body's tissues

Ankylosing spondylitis (AS)

AS is a systemic, chronic, and progressive spondyloarthropathy primarily affecting the spine and sacroiliac joints, and progressing into severe inflammation that fuses the spine, leading to permanent painful stiffness of the back

(Anti-)TNF

Tumor necrosis factor. An anti-TNF drug acts by modulation of TNF

ASDAS

Ankylosing Spondylitis Disease Activity Score, a composite score of symptoms such as back pain, duration of morning stiffness, and peripheral pain and swelling. We measured ASDAS scores in the TORTUGA trial with filgotinib in AS

Atherogenic index

Total cholesterol over HDL ratio. Improvement of the atherogenic index may be a forecast of cardiovascular health



OTHER INFORMATION

Atopic dermatitis (AtD)

Also known as atopic eczema, atopic dermatitis is a common pruritis inflammatory condition affecting the skin, which most frequently starts in childhood

Attrition rate

The historical success rate for drug discovery and development, based on publicly known development paths. Statistically seen, investment in at least 12 target-based programs is required to ensure that at least one of these will reach a Phase 3 study. Most new drug R&D programs are discontinued before reaching Phase 3 because they are not successful enough to be approved

Autotaxin (ATX)

An enzyme important for generating the signaling molecule lypophosphatidic acid (LPA). GLPG1690 targets autotaxin for IPF and SSc

BID dosing

Twice-daily dosing (bis in die)

Bioavailability

Assessment of the amount of product candidate that reaches a body's systemic circulation after (oral) administration

Biomarker

Substance used as an indicator of a biological process, particularly to determine whether a product candidate has a biological effect

Black & Scholes model

A mathematical description of financial markets and derivative investment instruments that is widely used in the pricing of European options and warrants

Bleomycin model

A preclinical model involving use of bleomycin (a cancer medication) to induce IPF symptoms

CDAI

Crohn's Disease Activity Index, evaluating patients on eight different factors, each of which has a pre-defined weight as a way to quantify the impact of CD

CDAI remission

In the FITZROY trial, the percentage of patients with CD who showed a reduction of CDAI score to <150

CIR

Crédit d'Impôt Recherche, or research credit. Under the CIR, the French government refunds up to 30% of the annual investment in French R&D operations, over a period of three years. Galapagos benefits from the CIR through its operations in Romainville, just outside Paris

Clinical proof-of-concept (PoC)

Point in the drug development process where the product candidate first shows efficacy in a therapeutic setting



OTHER INFORMATION

Compound

A chemical substance, often a small molecule with drug-like properties

Contract research organization

Organization which provides drug discovery and development services

Crohn's disease (CD)

An IBD involving inflammation of the small and large intestines, leading to pain, bleeding, and ultimately in some cases surgical removal of parts of the bowel

CRP

C-reactive protein is a protein found in the blood, the levels of which rise in response to inflammation

Cutaneous lupus

Cutaneous lupus is a heterogeneous autoimmune skin disease that can present itself as an organ-specific disease (e.g., in the skin only) or as a systemic disease involving multiple organs

Cystic fibrosis (CF)

A life-threatening genetic disease that affects approximately 80,000 people worldwide. Although the disease affects the entire body, difficulty breathing is the most serious symptom as a result of clogging of the airways due to mucus build-up and frequent lung infections

Cytokine

A category of small proteins which play important roles in signaling in processes in the body

Dactylitis

Dactylitis is inflammation of a digit (either finger or toe) and is derived from the Greek word dactylos meaning finger. The affected fingers and/or toes swell up into a sausage shape and can become painful. Dactylitis was measured in the EQUATOR trial with filgotinib in psoriatic arthritis

DARWIN

Phase 2 program for filgotinib in RA. Completed and reported in 2015 (except for the currently still ongoing DARWIN 3 study). DARWIN 1 explored three doses, in twice-daily and once-daily administration, for up to 24 weeks in RA patients with insufficient response to methotrexate (MTX) and who remained on their stable background treatment with MTX. DARWIN 2 explored three once-daily doses for up to 24 weeks in RA patients with insufficient response to methotrexate (MTX) and who washed out of their treatment with MTX. DARWIN 1 and 2 were double-blind, placebo-controlled trials which recruited approximately 900 patients globally. DARWIN 3 is a long term extension trial currently ongoing; all patients are on 200 mg filgotinib, except for U.S. males who are on 100 mg

DAS28 (CRP)

DAS28 is an RA Disease Activity Score based on a calculation that uses tender and swollen joint counts of 28 defined joints, the physician's global health assessment and a serum marker for inflammation, such as C-reactive protein. DAS28 (CRP) includes the C-reactive protein score calculation: scores range from 2.0 to 10.0, with scores below 2.6 being considered remission



OTHER INFORMATION

Development

All activities required to bring a new drug to the market. This includes preclinical and clinical development research, chemical and pharmaceutical development and regulatory filings of product candidates

Discovery

Process by which new medicines are discovered and/or designed. At Galapagos, this is the department that oversees target and drug discovery research through to nomination of preclinical candidates

Disease-modifying

Addresses the disease itself, modifying the disease progression, not just the symptoms of the disease

DIVERSITY

Phase 3 program evaluating filgotinib in CD

DLCO

DLCO (diffusion capacity of the lung for carbon monoxide) is the extent to which oxygen passes from the air sacs of the lungs into the blood. This is measured in IPF patients

Dose-range finding study

Phase 2 clinical study exploring the balance between efficacy and safety among various doses of treatment in patients. Results are used to determine doses for later studies

Double-blind

Term to characterize a clinical trial in which neither the physician nor the patient knows if the patient is taking placebo or the treatment being evaluated

Efficacy

Effectiveness for intended use

EMA

European Medicines Agency, in charge of European market authorization of new medications

Endoscopy

A non-surgical procedure involving use of an endoscope to examine a person's digestive tract

Enthesitis

Inflammation of the tendons or ligaments; this is one of the key symptoms of psoriatic arthritis and was also measured in the EQUATOR trial with filgotinib

EQUATOR

A Phase 2 trial with filgotinib in psoriatic arthritis patients

Esbriet

An approved drug (pirfenidone) for IPF, marketed by Roche



OTHER INFORMATION

FALCON

A phase 1b, open-label, non-randomized study to assess the safety, tolerability, pharmacokinetics, and efficacy of a novel combination treatment in up to 24 adult patients with CF

FDA

The U.S. Food and Drug Administration is an agency responsible for protecting and promoting public health and in charge of American market approval of new medications

Fee-for-service

Payment system where the service provider is paid a specific amount for each procedure or service performed

FEV

Forced expiratory volume measures how much air a person can exhale during a forced breath. The amount of air exhaled may be measured during the first (FEV1), second (FEV2), and/or third seconds (FEV3) of the forced breath

Fibrotic score

The Ashcroft fibrotic score involves measuring pulmonary fibrosis through examination of histopathology tissue

FIH

First-in-human clinical trial, usually conducted in healthy volunteers with the aim to assess the safety, tolerability and pharmacokinetics of the product candidate

Filgotinib

Formerly known as GLPG0634. Small molecule selective JAK1 inhibitor which showed activity and favorable tolerability in RA, PsA, AS and CD patients in Phase 2 trials. Filgotinib is partnered with Gilead. Galapagos and Gilead are running Phase 3 trials with filgotinib in RA, CD, and UC and Phase 2 trials with filgotinib in additional indications. Filgotinib is an investigational drug and its efficacy and safety have not been established

FINCH

Phase 3 program evaluating filgotinib in RA

Fistulizing CD

Fistulae are inflammatory tracts that most often occur between the distal colon and the perianal region. Fistulae are one of the most severe sequelae of luminal CD and the lifetime risk of occurrence is close to 50% of those with active CD

FITZROY

A double-blind, placebo controlled Phase 2 trial with filgotinib in 177 CD patients for up to 20 weeks. Full results were published in The Lancet in 2016

FLORA

A double-blind, placebo-controlled exploratory Phase 2a trial with GLPG1690 in up to 24 IPF patients; topline results were reported in August 2017



OTHER INFORMATION

FRI

Functional respiratory imaging is a technology which enhances 3D visualization and quantification of a patient's airway and lung geometry

FSMA

The Belgian market authority: Financial Services and Markets Authority, or Autoriteit voor Financiële Diensten en Markten

FTE

Full-time equivalent; a way to measure an employee's involvement in a project. For example, an FTE of 1.0 means that the equivalent work of one full-time worker was used on the project

FVC

Forced vital capacity is the amount of air which can be forcibly exhaled from the lungs after taking the deepest breath possible. FVC is used to help determine both the presence and severity of lung diseases such as IPF

GECKO

A Phase 2 trial evaluating a subcutaneous formulation of MOR106 in combination with topical corticosteroids. This Phase 2 trial was initiated early 2019

GLPG0555

A clinical candidate with undisclosed mode of action directed toward inflammation

GLPG0634

Molecule number currently known as filgotinib

GLPG1205

A GPR84 inhibitor fully proprietary to us. We initiated the PINTA patient trial with GLPG1205 in IPF

GLPG1690

A novel drug targeting autotaxin, with potential application in IPF & SSc. Topline results from the Phase 2a FLORA trial were reported in August 2017. The ISABELA Phase 3 program was initiated in 2018 and the NOVESa Phase 2 trial in SSc was initiated in early 2019

GLPG1972/S201086

GLPG1972/S201086, also referred to as GLPG1972, is a novel mode-of-action product candidate that is part of the OA collaboration with Servier. Galapagos and Servier are recruiting the ROCCELLA global Phase 2b trial with GLPG1972/S201086

GLPG2534

A preclinical candidate with undisclosed mode of action. GLPG2534 is expected to enter Phase 1 trials in 2020

GLPG2737

A clinical candidate with undisclosed novel mode of action. This compound is part of the CF collaboration with AbbVie but Galapagos regained rights outside of CF



OTHER INFORMATION

GLPG3312

A compound currently in Phase 1 with an undisclosed mode of action directed towards inflammation (IBD). GLPG3312 is a Toledo compound and the first one to enter Phase 1

GLPG3667

A preclinical candidate with undisclosed mode of action directed toward inflammation. GLPG3667 is expected to enter Phase 1 trials in 2019

GLPG3970

A preclinical candidate with a undisclosed mode of action directed toward inflammation. GLPG3970, which is part of the Toledo target family, is expected to enter Phase 1 trials in 2019

HDL

High-density lipoprotein. HDL scavenges and reduces low-density lipoprotein (LDL) which contributes to heart disease at high levels. High levels of HDL reduce the risk for heart disease, while low levels of HDL increase the risk of heart disease

Hemoglobin

A protein inside red blood cells that carries oxygen from the lungs to tissues and organs in the body and carries carbon dioxide back to the lungs

Histopathology

Microscopic examination of tissues for manifestations of a disease

IBD

Inflammatory Bowel Disease. This is a general term for an autoimmune disease affecting the bowel, including CD and UC. CD affects the small and large intestine, while UC affects the large intestine. Both diseases involve inflammation of the intestinal wall, leading to pain, bleeding, and ultimately, in some cases, surgical removal of part of the bowel

IGUANA

Phase 2 trial together with our partners MophoSys and Novartis, investigating MOR106 in AtD patients

IL-17C

IL-17C has been shown to be distinct from other members of the IL-17 family of cytokines. IL-17C has been shown to be an important mediator in inflammatory skin diseases, and is the target of MOR106

In-/out-licensing

Receiving/granting permission from/to another company or institution to use a brand name, patent, or other proprietary right, in exchange for a fee and/or royalty

In vitro

Studies performed with cells outside their natural context, for example in a laboratory

Inflammatory diseases

A large, unrelated group of disorders associated with abnormalities in inflammation



OTHER INFORMATION

Inspiratory capacity

Total lung capacity or the amount of gas contained in the lung at the end of a maximal inhalation

Intellectual property

Creations of the mind that have commercial value and are protected or protectable, including by patents, trademarks or copyrights

Intersegment

Occurring between the different operations of a company

Investigational New Drug (IND) Application

United States Federal law requires a pharmaceutical company to obtain an exemption to ship an experimental drug across state lines, usually to clinical investigators, before a marketing application for the drug has been approved. The IND is the means by which the sponsor obtains this exemption, allowing them to perform clinical studies

IPF

Idiopathic pulmonary fibrosis. A chronic and ultimately fatal disease characterized by a progressive decline in lung function. Pulmonary fibrosis involves scarring of lung tissue and is the cause of shortness of breath. Fibrosis is usually associated with a poor prognosis. The term “idiopathic” is used because the cause of pulmonary fibrosis is still unknown

ISABELA

Phase 3 clinical program investigating GLPG1690 in IPF patients. The ISABELA Phase 3 program consists of two identically designed trials, ISABELA 1 and ISABELA 2, and will enroll a total of 1,500 IPF patients combined

JAK

Janus kinases (JAK) are critical components of signaling mechanisms utilized by a number of cytokines and growth factors, including those that are elevated in RA. Filgotinib is a selective JAK1 inhibitor

LDL

Low-density lipoprotein. LDL contributes to heart disease at high levels

Liver enzymes

Inflamed or injured liver cells secrete higher than normal amounts of certain chemicals, including liver enzymes, into the bloodstream

LPA

Lysophosphatidic acid (LPA) is a signaling molecule involved in fibrosis

Lymphocyte

Type of white blood cell that is part of the immune system

MANTA

A Phase 2 trial with filgotinib to evaluate male testicular safety in patients with UC and CD



MANTA-RAY

A Phase 2 trial with filgotinib to evaluate male testicular safety in patients with RA, PsA and AS

Milestone

Major achievement in a project or program; in our alliances, this is usually associated with a payment

Molecule collections

Chemical libraries, usually consisting of drug-like small molecules that are designed to interact with specific target classes. These collections can be screened against a target to generate initial "hits" in a drug discovery program

MOR106

A novel mode-of-action antibody product candidate currently in a Phase 2 trial in AtD patients. MOR106 acts on IL-17C, a novel antibody target discovered by Galapagos. MOR106 is part of the alliance with MorphoSys and Novartis

MTX

Methotrexate; a first-line therapy for inflammatory diseases

NDA

New Drug Application

Neutrophil

Type of immune system cell which is one of the first cell types to travel to the site of an infection in the body. Neutrophils are another type of white blood cell which fight infection by ingesting and killing microorganisms

NK cells

Natural killer cells, type of white blood cell with granules of enzymes which can attack tumors or viruses

NOVESA

A Phase 2 trial to evaluate GLPG1690 in systemic sclerosis (SSc)

Ofev

An approved drug (nintedanib) for IPF, marketed by Boehringer Ingelheim

Oral dosing

Administration of medicine by the mouth, either as a solution or solid (capsule, pill) form

Organoids

Miniature organ produced from cells from a donor; organoids have all the phenotypic characteristics of the patient donor, making them useful tools for *in vitro* drug research

Osteoarthritis (OA)

The most common form of arthritis, usually occurring after middle age, marked by chronic breakdown of cartilage in the joints leading to pain, stiffness, and swelling



OTHER INFORMATION

Outsourcing

Contracting work to a third party

Pharmacokinetics (PK)

Study of what a body does to a drug; the fate of a substance delivered to a body. This includes absorption, distribution to the tissues, metabolism and excretion. These processes determine the blood concentration of the drug and its metabolite(s) as a function of time from dosing

Phase 1

First stage of clinical testing of an investigational drug designed to assess the safety and tolerability, pharmacokinetics of a drug, usually performed in a small number of healthy human volunteers

Phase 2

Second stage of clinical testing, usually performed in no more than several hundred patients, in order to determine efficacy, tolerability and the dose to use

Phase 3

Large clinical trials, usually conducted in several hundred to several thousand patients to gain a definitive understanding of the efficacy and tolerability of the candidate treatment; serves as the principal basis for regulatory approval

PINTA

Phase 2 trial with GPR84 inhibitor GLPG1205 in IPF patients

Placebo-controlled

A substance having no pharmacological effect but administered as a control in testing a biologically active preparation

Preclinical

Stage of drug research development, undertaken prior to the administration of the drug to humans. Consists of *in vitro* and *in vivo* screening, pharmacokinetics, toxicology, and chemical upscaling

Preclinical candidate (PCC)

A new molecule and potential drug that meets chemical and biological criteria to begin the development process

Product candidate

Substance that has satisfied the requirements of early preclinical testing and has been selected for development, starting with formal preclinical safety evaluation followed by clinical testing for the treatment of a certain disorder in humans

Proof-of-concept study

Phase 2 patient study in which activity as well as safety in patients is evaluated, usually for a new mechanism of action

Pruritis

Extreme itching, as observed in AtD patients



OTHER INFORMATION

Psoriatic arthritis (PsA)

Psoriatic arthritis or PsA is an inflammatory form of arthritis, affecting up to 30% of psoriasis patients. Psoriatic arthritis can cause swelling, stiffness and pain in and around the joints, and cause nail changes and overall fatigue

QD dosing

Once-daily dosing (qd from the Latin quaque die)

R&D operations

Research and development operations; unit responsible for discovery and developing new product candidates for internal pipeline or as part of risk/reward sharing alliances with partners

Rheumatoid arthritis (RA)

A chronic, systemic inflammatory disease that causes joint inflammation, and usually leads to cartilage destruction, bone erosion and disability

ROCCELLA

Global Phase 2b trial, together with our collaboration partner Servier, evaluating GLPG1972/S201086 (GLPG1972) in osteoarthritis (OA)

Screening

Method usually applied at the beginning of a drug discovery campaign, where a target is tested in a biochemical assay against a series of small molecules or antibodies to obtain an initial set of “hits” that show activity against the target. These hits are then further tested or optimized

SELECTION

Phase 3 program evaluating filgotinib in UC patients

Service operations

Business unit primarily focused on delivering products and conducting fee-for-service work for clients. Our service operations included the BioFocus and Argenta business units, which were both sold in April 2014 to Charles River Laboratories

SES-CD scores

Simple endoscopic score for CD, involving review of five pre-defined bowel segments, assigning values from 0 (unaffected) to 3 (highly affected)

Sjögren's syndrome

Sjögren's Syndrome is a systemic inflammatory disease which can be felt throughout the body, often resulting in chronic dryness of the eyes and mouth

Small bowel CD (SBCD)

CD causes chronic inflammation and erosion of the intestines. It can affect different regions of gastrointestinal tract including the stomach and small and large intestines. While isolated SBCD is an uncommon presentation of CD, involvement of some portion of the small bowel, particularly the ileum, is common



OTHER INFORMATION

Spondylitis

About 20% of patients with psoriatic arthritis will develop spinal involvement, which is called psoriatic spondylitis. Inflammation of the spine can lead to complete fusion, as in AS, or affect only certain areas such as the lower back or neck. We measured spondylitis in the EQUATOR trial with filgotinib in psoriatic arthritis

Systemic sclerosis (SSc)

Systemic sclerosis (SSc) or scleroderma is an autoimmune disease. One of the most visible manifestations is hardening of the skin. In diffuse cutaneous SSc, which has one of the highest mortality rates among rheumatic diseases, fibrosis occurs in multiple organs, such as the lung

Target

Protein that has been shown to play a role in a disease process and that forms the basis of a therapeutic intervention or discovery of a medicine

Target discovery

Identification and validation of proteins that have been shown to play a role in a disease process

Technology access fee

License payment made in return for access to specific technology (e.g. compound or virus collections)

Tendinitis

Tendinitis is inflammation or irritation of a tendon, the thick fibrous cords that attach muscle to bone. The condition causes pain and tenderness just outside a joint. We measured tendinitis in the EQUATOR trial with filgotinib in psoriatic arthritis

Toledo

Toledo is a code name for a target family with a novel, undisclosed mode of action. GLPG3312 is the first of the Toledo compounds for which a Phase 1-trial has been initiated early 2019

TORTUGA

Phase 2 trial with filgotinib in patients with ankylosing spondylitis. In 2018, we and Gilead reported that TORTUGA met its primary endpoint

Ulcerative colitis (UC)

UC is an IBD causing chronic inflammation of the lining of the colon and rectum (unlike CD with inflammation throughout the gastrointestinal tract)

Uveitis

Uveitis is the term that refers to inflammation inside the eye. This inflammation can be caused by infection, autoimmune reaction, or by conditions confined primarily to the eye



Financial calendar

24 October 2019
(webcast 25 October 2019)

Third quarter 2019 Results

20 February 2020
(webcast 21 February 2020)

Full Year 2019 Results

Financial year

The financial year starts on 1 January and ends on 31 December.

Auditor

Deloitte Bedrijfsrevisoren CVBA,
represented by Gert Vanhees
Luchthaven Nationaal 1, bus J, 1930
Zaventem, Belgium

Colophon

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Aldo Alessi

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Contact



Elizabeth Goodwin

Vice President Investor Relations
Galapagos NV
230 Third Ave
Waltham, MA 02451,
United States
Tel. +1 781 522 0002
Mob. +1 781 460 1784
Email: ir@glpg.com



Sofie Van Gijssel

Director Investor Relations
Galapagos NV
Generaal De Wittelaan L11 A3
2800 Mechelen, Belgium
Tel. +32 485 19 14 15
Email: ir@glpg.com



Carmen Vroonen

Senior Director Corporate
Communications
Galapagos NV
Generaal De Wittelaan L11 A3
2800 Mechelen, Belgium
Tel. +32 15 34 28 24
Email:
communications@glpg.com