Establishing ABX464's anti-inflammatory, antiviral and tissue repair properties to prevent and treat COVID-19

Abivax, a late-stage clinical biotech company

May 14, 2020

abivax

Forward looking statements

This presentation contains information pertaining to Abivax S.A. (“Abivax”). Neither Abivax, nor its management, shareholders, directors, advisors, employees or representatives make any representation or warranty, express or implied, as to the fairness, the accuracy, completeness or correctness of any information contained in this presentation or any other information transmitted or made available to the viewer or recipient hereof, whether communicated in written or oral form. Neither Abivax, nor its management, shareholders, directors, advisors, employees or representatives accept any responsibility in this respect.

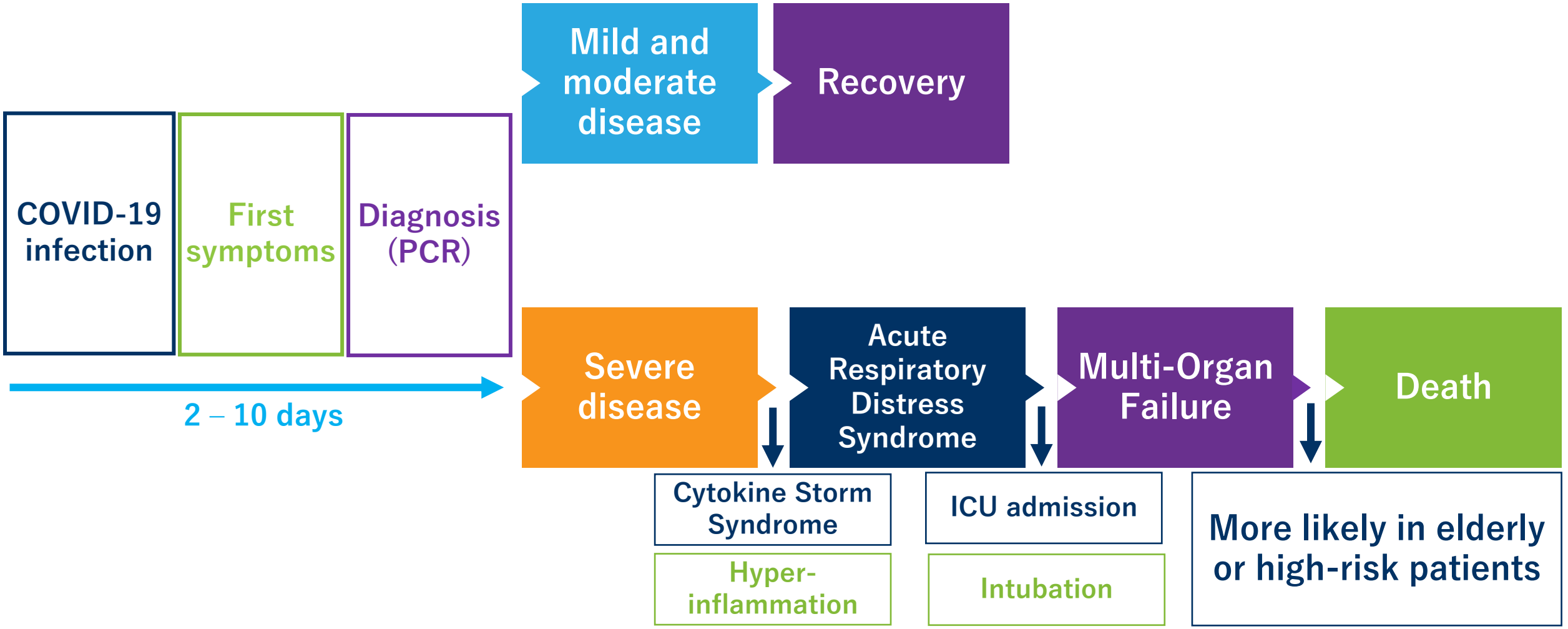
This presentation contains forward-looking statements. These statements reflect management’s current views with respect to Abivax’s product candidates’ development, clinical and regulatory timelines and anticipated results, market opportunity, potential financial performance and other statements of future events or conditions, which are naturally subject to risks and contingencies that may lead to actual results materially differing from those explicitly or implicitly included in these statements. Although Abivax believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of various factors, many of which are beyond Abivax’s control. No reliance should be made on such forward-looking statements.

Abivax does not undertake to update or revise the presentation, including the forward-looking statements that may be presented in this document to reflect new information, future events or for any other reason, following distribution, beyond what is required by applicable law or applicable stock exchange regulations if and when circumstances arise that will lead to changes compared to the date when these statements were provided.

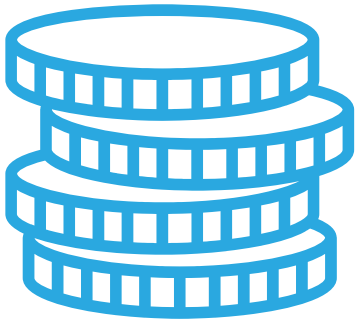
In the European Union (including in France), this presentation is intended solely for “qualified investors” within the meaning of Article 2(1)(e) of the Prospectus Directive (Directive 2003/71/EC) as amended (including amendments by Directive 2010/73/EU), to the extent implemented in the relevant member state). This presentation has been prepared on the basis that any offering of securities by the Company in any member state of the European Economic Area has implemented the Prospectus Directive (2003/71/EC) will be made either by means of a prospectus filed with the authority of the relevant member state, or pursuant to an exemption under the Prospectus Directive, as implemented in that relevant member state, from the requirement to publish a prospectus.

This presentation does not constitute or form part of, and should not be construed as, an offer to sell or issue or the solicitation of an offer to buy or acquire securities of Abivax, in any jurisdiction or an inducement to enter into investment activity, nor shall there be any sale of securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities law of any such state or jurisdiction. No part of this presentation, nor the fact of its distribution, should form the basis of, or be relied on in connection with any contract or commitment or investment decision whatsoever.

COVID-19 disease

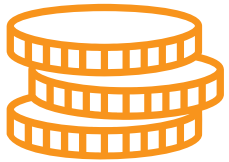


ABX464: A promising candidate addressing inflammatory and COVID-19 markets



Total market size(1) in inflammatory diseases

greater than
USD 90 B



Market size(1,2) for therapeutic (COVID-19)

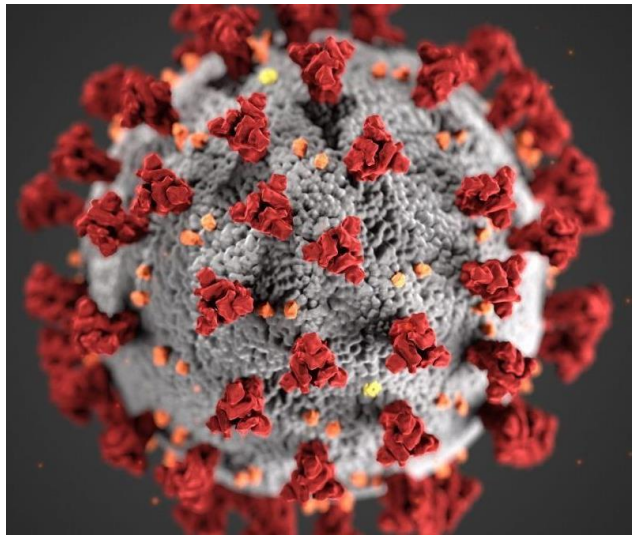
Very large Market

- Coming from the **proprietary** Abivax library of compounds, biased to **modulate RNA biogenesis** (>2200 molecules); Close collaboration with EVOTEC
- **Small molecule** (quinoline), administered as an **oral capsule** (once a day)
- **First-in-Class, novel mechanism of action:** Selective upregulation of anti-inflammatory microRNA miR-124
- **Good safety profile** after administration to >**300 subjects**
- **Anti-inflammatory effect** confirmed in DSS mouse model of IBD as well as in Phase 2a induction and maintenance studies in ulcerative colitis. Phase 2b study in UC ongoing in 232 Patients, as well Phase 2a in rheumatoid arthritis in 60 patients
- **High medical need** for novel safe and efficacious drugs in “classical” inflammatory diseases as well as Covid-19

(1) For Europe G5, U.S. and Japan

(2) Abivax estimates

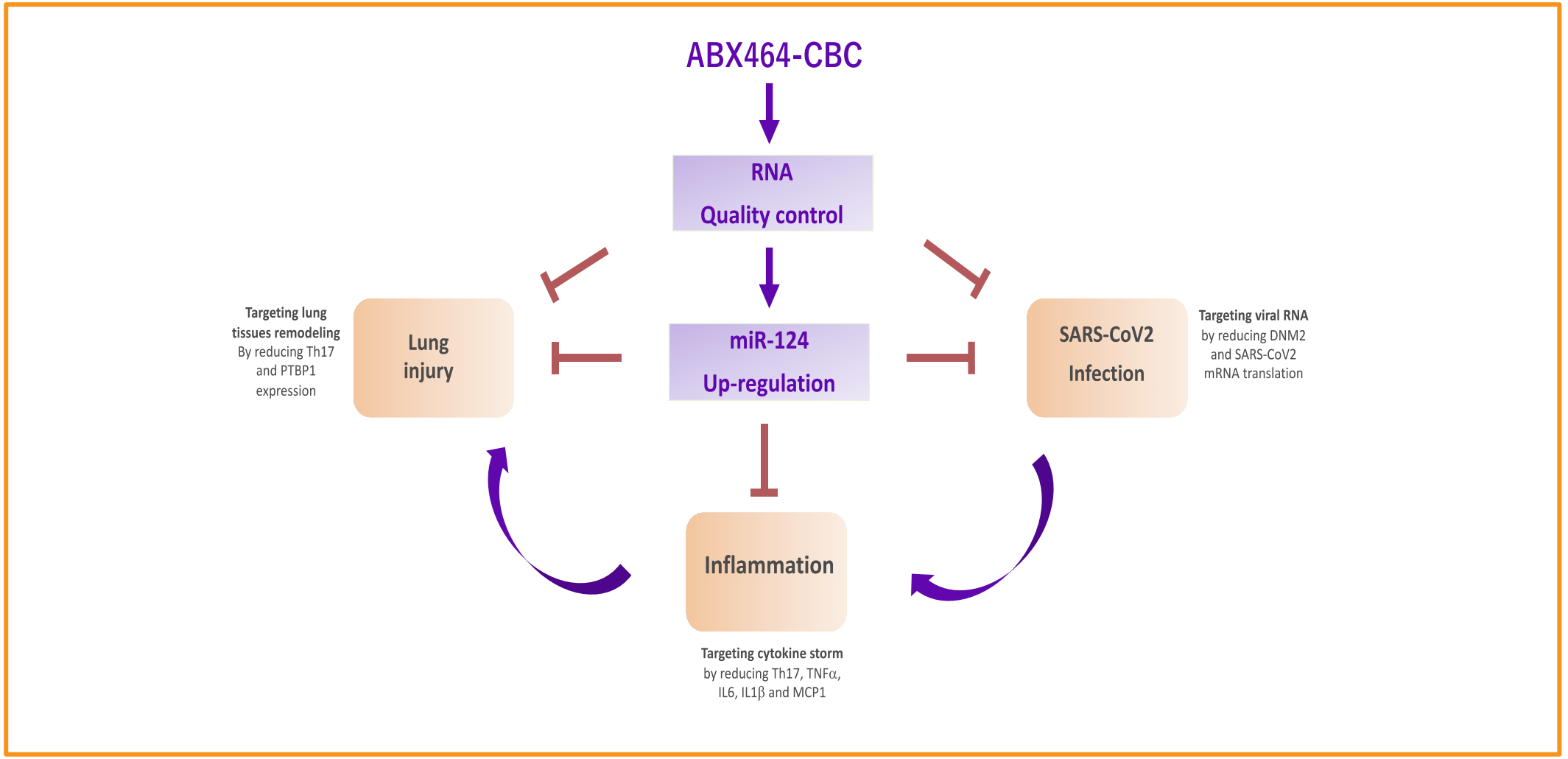
ABX464 COVID-19 Development Rationale



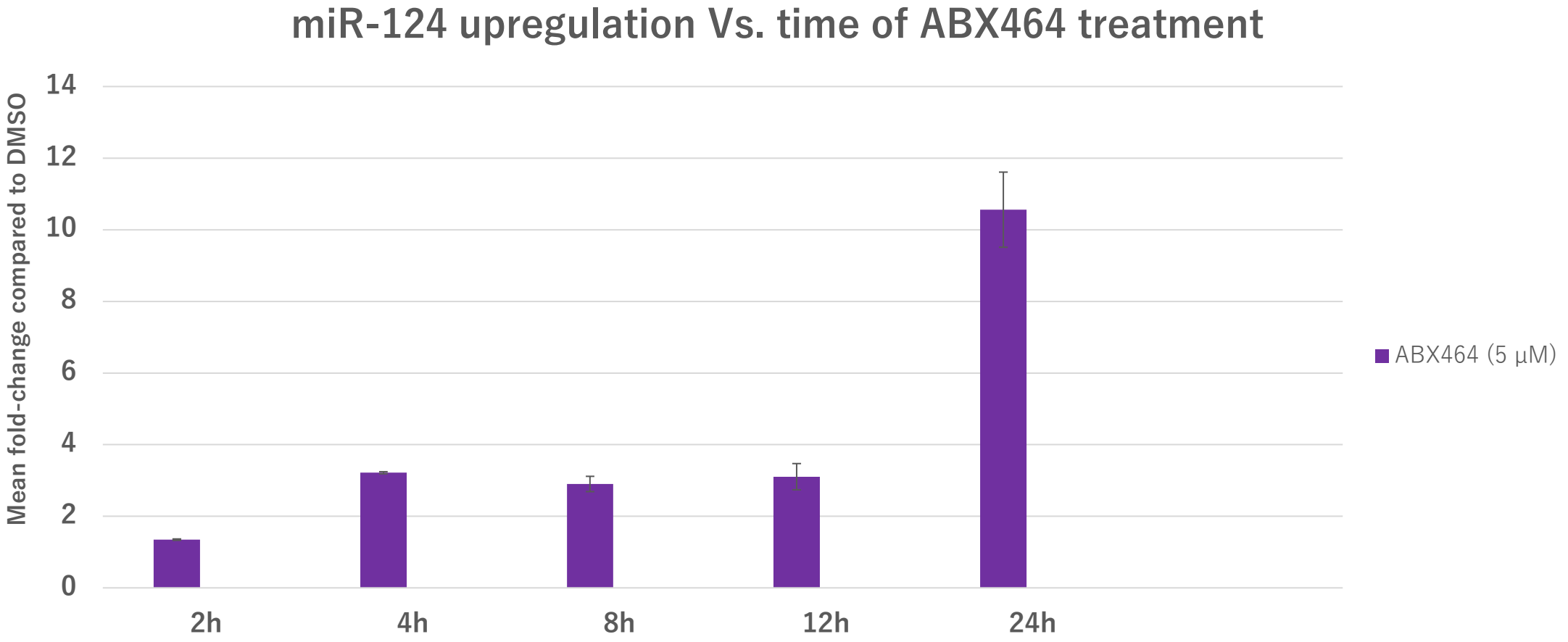
- ABX464 showed the capacity to **reduce or eliminate the viral HIV reservoirs**; new data show that ABX464 **inhibits the replication of SARS-CoV-2** (COVID-19 virus) in an in vitro reconstituted human respiratory epithelium model
- COVID-19 infection can induce a **cytokine storm** (including increased MCP1, IL-1β, TNFα, IL-17, G-CSF and IL-6)*, leading to **acute respiratory distress syndrome** (ARDS), multiple organ failure and death
- ABX464 has demonstrated in several *in-vivo* models and in patients **potent anti-inflammatory properties** thanks to its unique mechanism of action mediated by a specific upregulation of a single micro-RNA (miR-124)
- Abivax is conducting a **randomized, double-blind and placebo-controlled Phase 2b/3 clinical trial** in Europe with ABX464 in 1,034 COVID-19 patients – Clinical trial already fully approved in France
- **Good safety profile** of ABX464 demonstrated in >300 volunteers and patients
- Abivax has already **manufacturing capacities in place** (drug substance, finished product and packaging) to supply the investigational drug **for large clinical trials** as well as to ramp up quickly to **large scale commercial production**

* The Lancet, March 16, 2020
Puja Mehta et al.

Rationale for testing ABX464 in patients infected with COVID-19

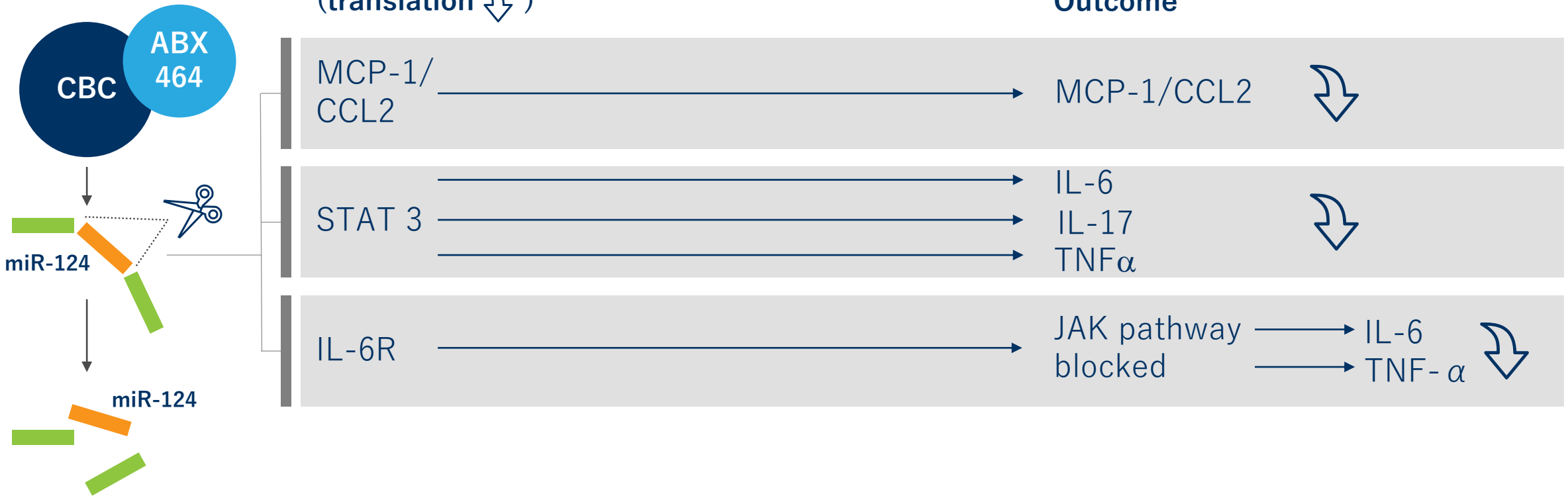


ABX464 specifically and rapidly upregulates miR-124 10-fold within 24 hours in human PBMCs (*in vitro* results)



ABX464 novel mechanism of action: Potent and specific upregulation of miR-124 leads to reduction of pro-inflammatory cytokines

Both systemic and local inflammatory sites



ABX464 reduced MCP1, IL-1β, TNFα and IL-6 within 4 days of treatment of primary human monocyte-derived macrophages

Within four days of treatment ABX464 reduced relevant chemokines and cytokines in primary human monocyte-derived macrophages

MCP1
(-50 to -60%)

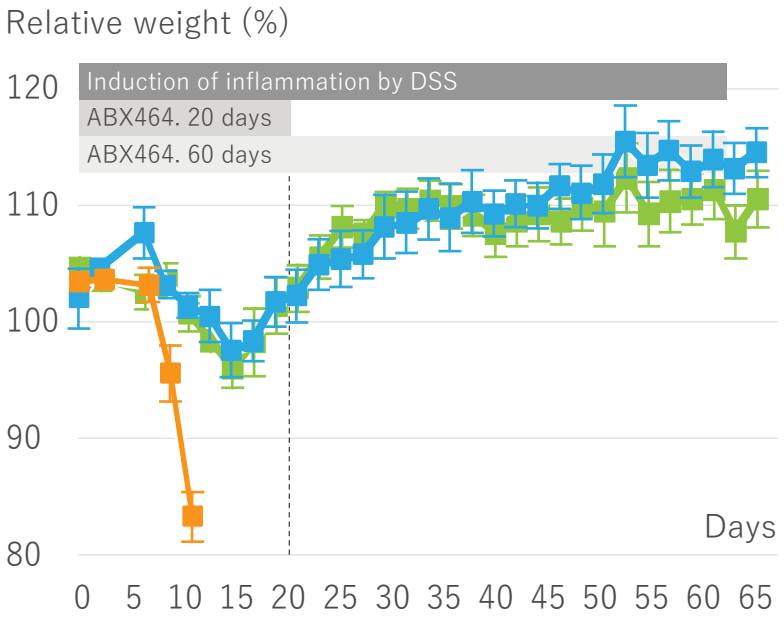
IL-6
(-20%)

TNFα
(-25%)

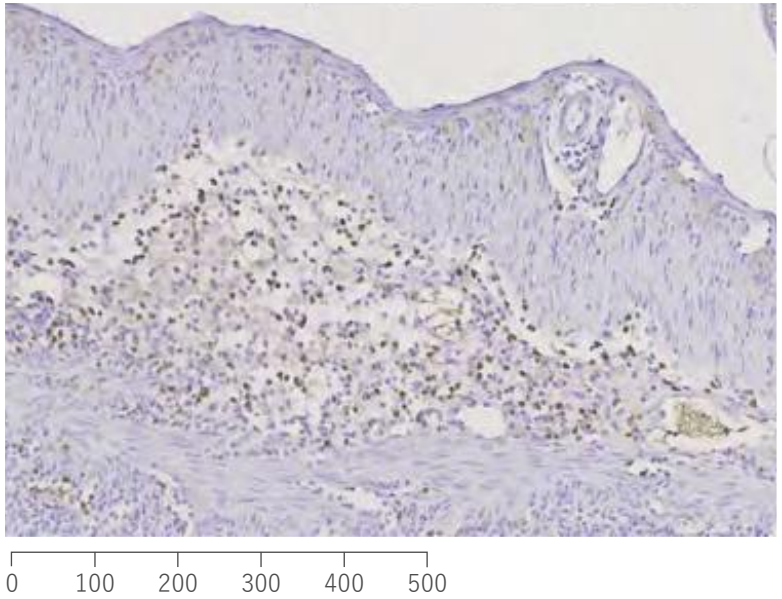
IL-1β
(-25%)

ABX464 showed efficacy in the DSS mouse model*

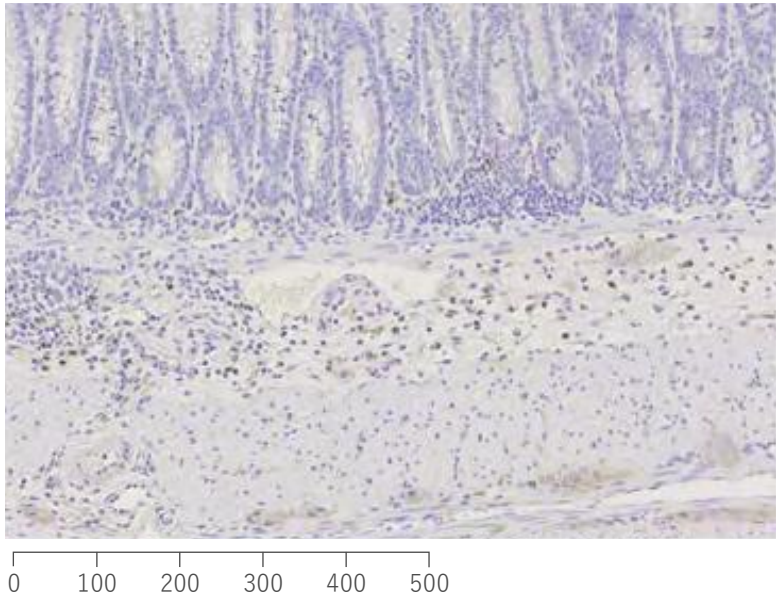
ABX464 protects mice from death in the DSS mouse model



DSS without ABX464 leads to intestinal damage



ABX464 protects intestinal structure



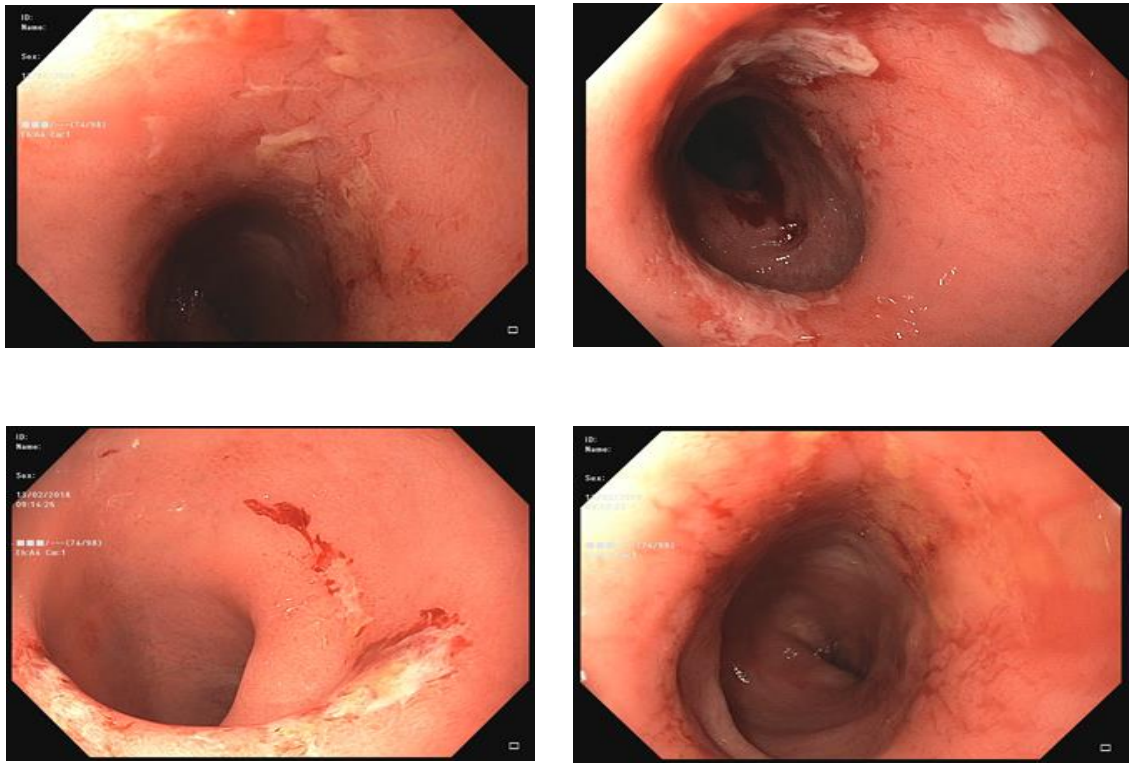
→ **ABX464 reduced the expression of pro-inflammatory cytokines in colon tissue:**
IL-6 (2x), TNF (7.5x) and MCP-1 (6x)

*Chebli et al, Nature Scientific Reports 7: 4860 (2017)

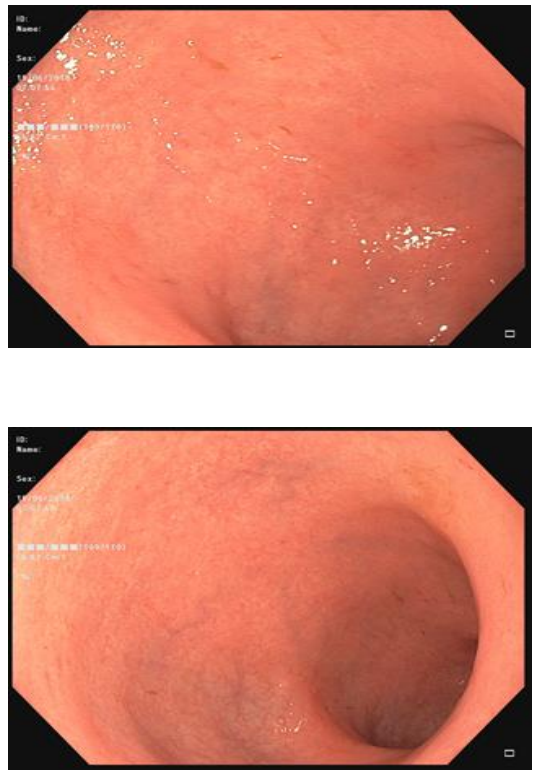
Tissue repair in an ABX464 treated UC patient

Courtesy of Prof. Severine Vermeire

Before ABX464

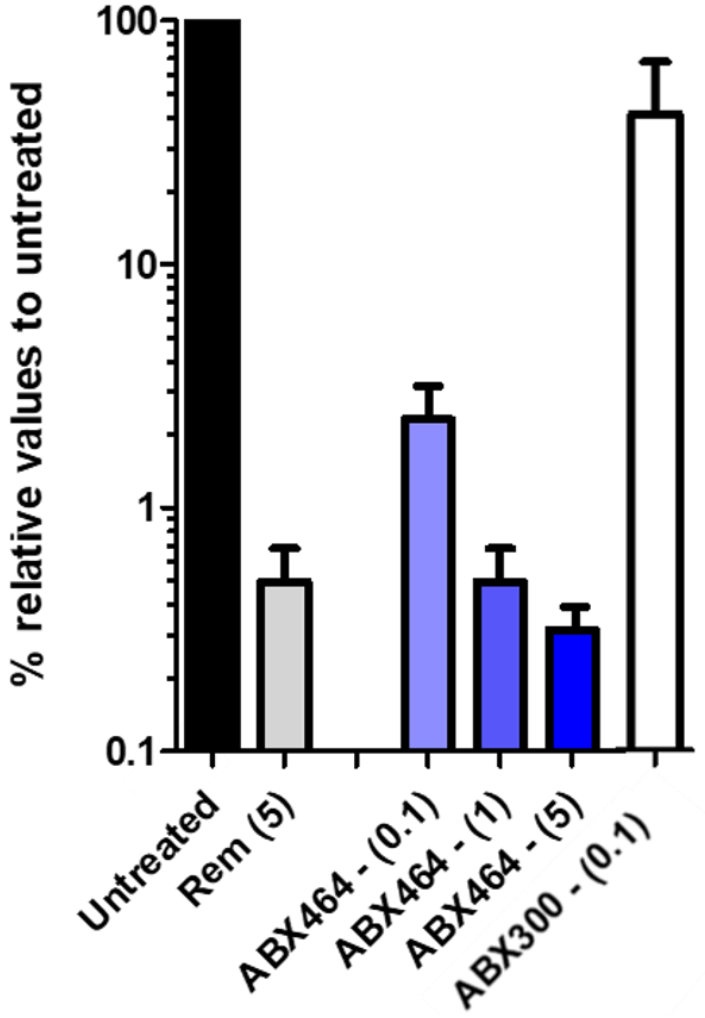


After ABX464



Reduction of Covid-19 replication in an in vitro reconstituted human airway epithelial model

Infectious titrations TCID50 at 48 hours post infection



ABX464 showed a good safety profile during clinical development of the 50 mg dosage form

Safety profile consistent with previous and ongoing clinical studies

(>300 healthy volunteers and patients exposed to ABX464)

- **Overall:** No deaths, no malignancies, no severe infections, no significant changes in the laboratory parameters including blood cell counts
- **No Serious Adverse Reactions,** most AEs were of mild to moderate intensity
- **Most frequently reported AEs:** Headache and epigastric pain; occurring mainly during the first days of treatment
- Some patients are on **continuous daily treatment with ABX464 for >2 years**

European Phase 2/3 clinical trial miR-AGE : High-risk patients, PRIOR to respiratory distress

- **Early treatment** of high-risk patients infected with COVID-19
- **Phase 2b/3 study**, placebo-controlled and randomized
- **Main objective**: A Phase 2b/3, randomized, double blind, placebo-controlled study to evaluate the efficacy and the safety of ABX464 in treating inflammation and preventing acute respiratory failure in patients aged ≥65 and patients aged ≥18 with at least one additional risk factor who are infected with SARS-CoV-2 (the miR-AGE study).
- Target population: hospitalized and **non-hospitalized patients**
- Main evaluation criterion: Absence of high-flow oxygen (>3 l/min), assisted ventilation (positive pressure or intubation) and/or death after 28 days
- Treatment duration: **28 days**
- Preliminary sample size estimate: Placebo + SOC group : 344 patients, ABX464 + SOC group : 690 patients (2 to 1 randomization). Expected response rate; 75% on placebo, 83 % on ABX464 (alpha 0.05, beta 80%).
- In total, **1,034 patients** will be included in **50 European clinical study sites**

ABX464 Supply available for COVID-19 clinical trials and scalable

French Manufacturers
(Seqens / Delpharm / Creapharm)

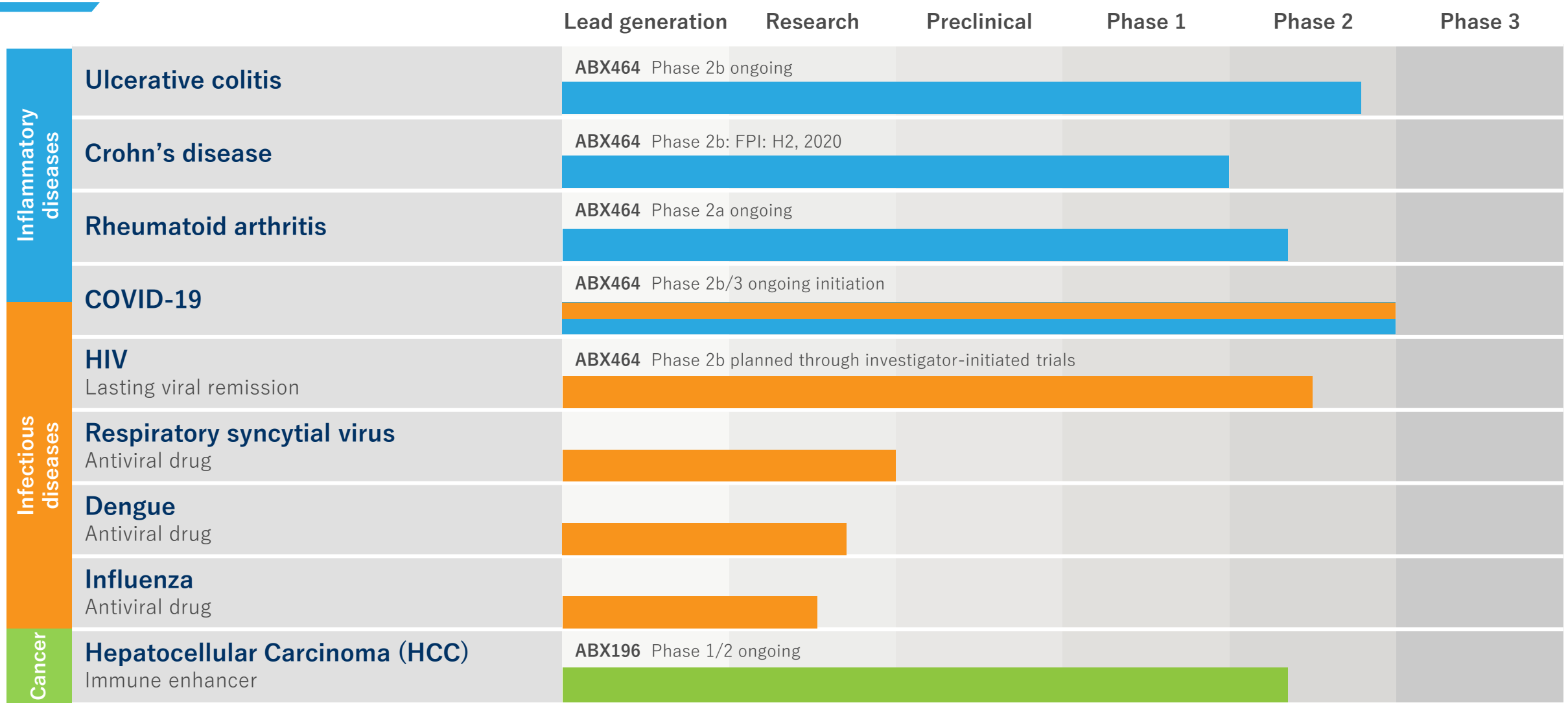
Supplies available for miR-AGE study

Current drug supplies allow the treatment of around 2 500 patients during 4 weeks / 50 mg daily

Current drug substance supplies allow treatment of 40 000-50 000 patients during 4 weeks / 50 mg daily

Process scale-up to millions of doses is doable within months

Abivax: A strong and diversified pipeline



Key company facts

Milestones

Founded in 2013 by Truffle Capital

Focus on chronic inflammatory diseases with ABX464 in Sept. 2018

Abivax went public in June 2015, raising € 57.7m

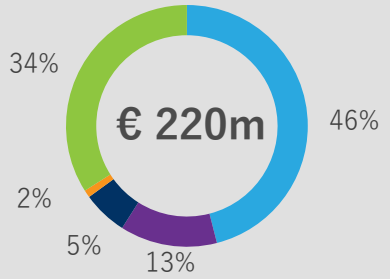
Acute viral and inflammatory diseases with ABX464 in May 2020

Location

Head Office
Paris

Cooperative Lab with CNRS
Montpellier

Shareholder structure[1] and market cap[2]



Operations

26 Employees

Cash[3] **€ 9.8m**

20 in R&D

6 in Support

1) Undiluted – as of 31.03.2020
2) As of 12.05.2020 EOB
3) Actual December 2019

Highly experienced Executive Committee

Prof. Hartmut Ehrlich, M.D.

Chief Executive Officer

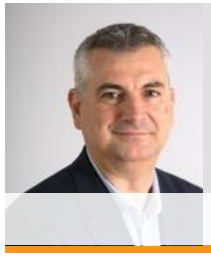
Former Head of Global R&D, Baxter BioScience

Baxter · SANDOZ · Lilly

Didier Blondel

Chief Financial Officer & Board Secretary

SANOFI · sanofi pasteur MSD



Pierre Courteille Pharmacist, MBA

Chief Commercial Officer & VP, BD

sanofi pasteur · Guerbet Contrast for Life

Jérôme Denis Ph.D.

VP, Process Dev. & Manufacturing

imaXio · LYONBIOPOLE

Alexandra Pearce Ph.D.

VP, Regulatory Affairs, Quality, PV

AMGEN · Pfizer

Paul Gineste Pharm.D.

VP, Clinical Operations

Boehringer Ingelheim · ALTANA

Didier Scherrer Ph.D.

VP, R&D

AstraZeneca

Jean-Marc Steens M.D.

Chief Medical Officer

ViiV Healthcare · GlaxoSmithKline

Prof. Jamal Tazi Ph.D.

VP, Research & Director of Cooperative Lab with CNRS

→ Competencies from discovery to global commercialization