

Forward Looking Statements

This presentation contains forward-looking statements. Forward-looking statements include all statements that are not historical facts. In some cases, you can identify these forward-looking statements by the use of words such as **«outlook »**, **«believes»**, **«expects»**, **«potential»**, **«continues»**, **«may»**, **«will»**, **«should»**, **«could»**, **«seeks»**, **«predicts»**, **«intends»**, **«trends»**, **«plans»**, **«estimates»**, **«anticipates» or the negative version of these words or other comparable words. These forward-looking statements include statements regarding Biophytis' anticipated timing for its various BIO101 (20-hydroxyecdysone) clinical trials and expectations regarding commercialization. Such forward-looking statements are based on assumptions that Biophytis considers to be reasonable.**

However, there can be no assurance that the statements contained in such forward-looking statements will be verified, which are subject to various risks and uncertainties including, without limitation, delays in patient recruitment or retention, interruptions in sourcing or supply chain, its ability to obtain the necessary regulatory authorizations, COVID-19-related delays, and the impact of the current pandemic on the Company's clinical trials. The forward-looking statements contained in this presentation are also subject to risks not yet known to Biophytis or not currently considered material by Biophytis.

Accordingly, there are or will be important factors that could cause actual outcomes or results to differ materially from those indicated in these statements. Please refer to the «Risk Factors» section of the Company's 2023 Full Year Financial Report available on BIOPHYTIS website (www.biophytis.com) and to the risks discussed in the Company's registration statement on Form F-1 and other reports filed with the Securities and Exchange Commission (the "SEC"). We undertake no obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise, except as required by law.





A clinical-stage biotechnology company specialized in the development of therapeutics for muscular, respiratory and metabolic diseases



HQ location: Paris, France
Other locations in Sao Paulo, BR
and Cambridge, MA US



Founded: 2006



Euronext growth Paris (ALBPS) **Marchés OTC** (BPTSY)



Drug discovery: platform for developing drugs for age-related diseases



























BIOPHYTIS' People: Expertise & Passion



Stanislas Veillet CEO, cofounder







Rob van MAANEN Chief Medical Officer







Pierre DILDA Chief Scientific Officer







Edouard BIETH Chief Business Officer





Waly DIOH Chief Operations Officer







Nicolas FELLMANN Chief Financial Officer





Chiara BACCELLI Chief Pharmaceutical Operation, Officer & Quality Assurance Director



Our Clinical Pipeline as of today



Candidate	Indication	Program	Preclinical	Phase 1	Phase 2	Phase 3	Regulatory	Market
BIO 101 20-hydroxyecdysone	Sarcopenia Obesity	ISARA						
		●BA						
	Covid-19 DMD	C©VA				Ruv 20-hyd	vembri roxyecdysone	
		MYODA						
BIO 203	Dry AMD				 			
	Stargardt							

BIO101 (20-hydroxyecdysone): Mechanism of Action

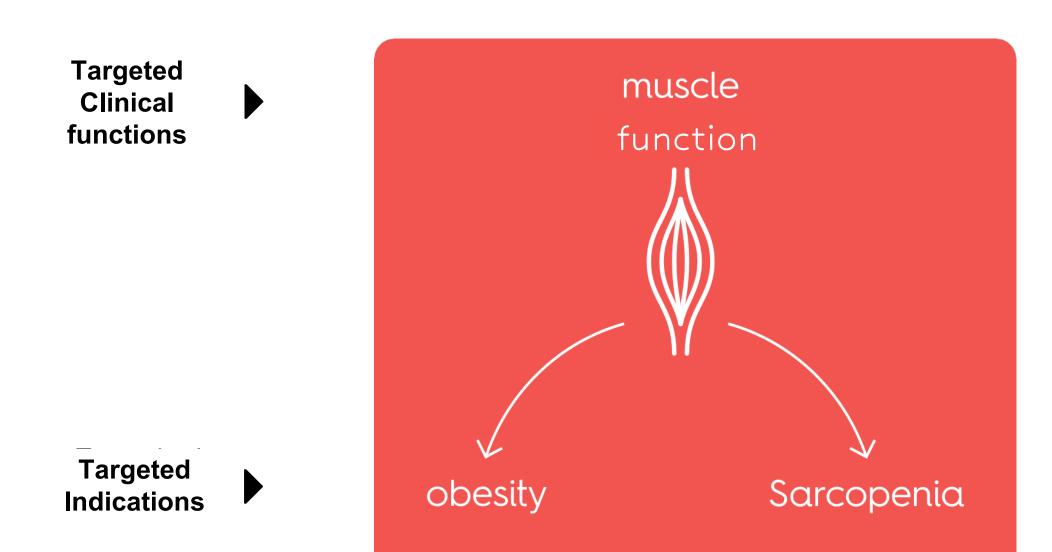


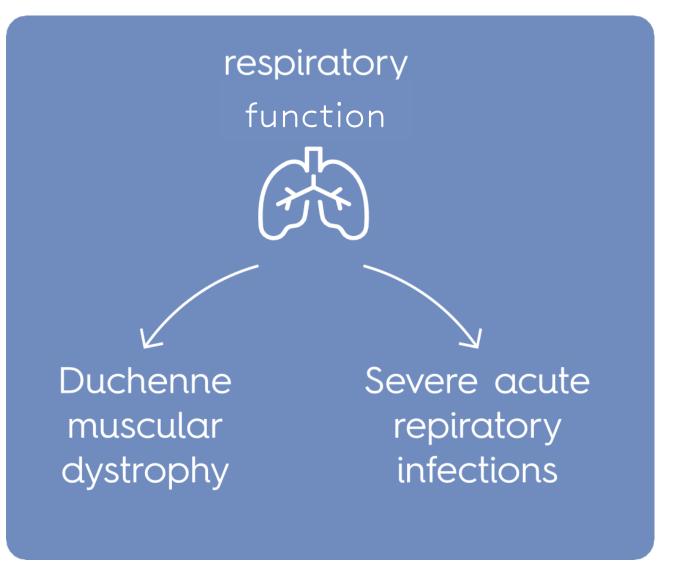
- BIO101 (20-hydroxyecdysone) triggers two important MAS receptor downstream signaling-pathways in myocytes:
 PI3K/AKT/mTOR: Increases protein synthesis
 AMPK/ACC: Stimulates energy production
- MAS activation in muscles stimulates muscle metabolism with a potential impact on muscle and/or respiratory functions



BIO101 (20-hydroxyecdysone) is currently in development in 4 indications







BIO101 (20-hydroxyecdysone)

in SARCOPENIA

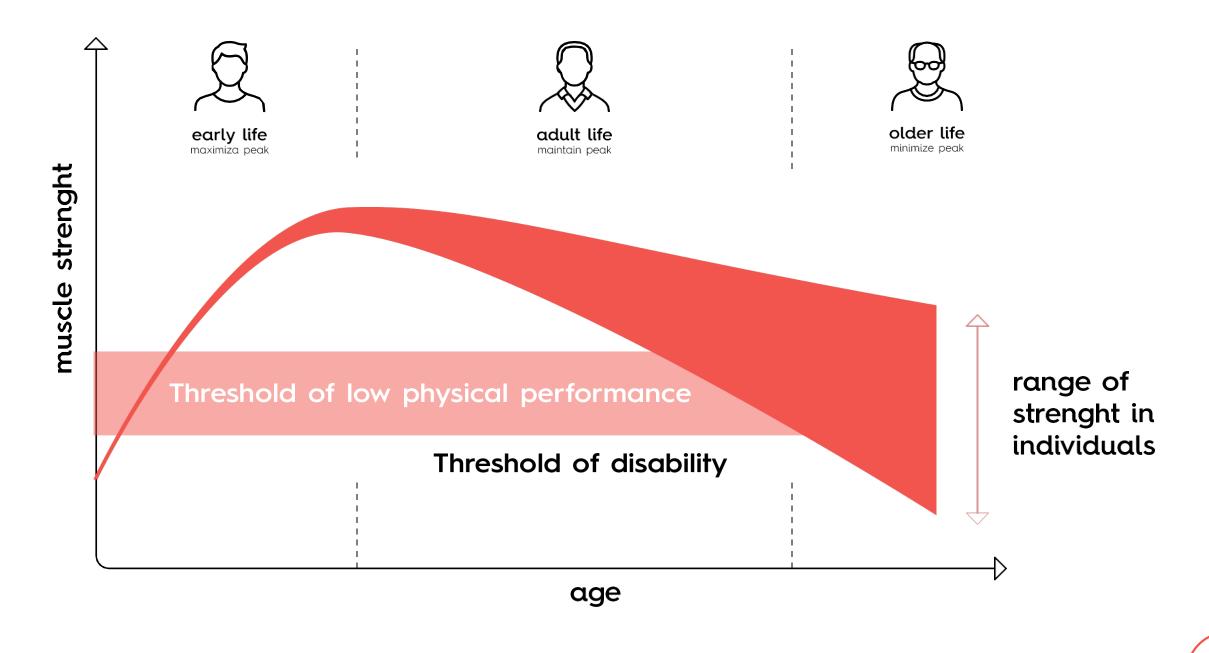




Sarcopenia is an aged related disease



Sarcopenia is a syndrome defined by many consortia including the EWGSOP (The European Working Group on Sarcopenia in Older People) and the SDOC (Sarcopenia definitions and Outcomes Consortium), characterized by **progressive** and generalized loss of skeletal muscle mass, strength and function associated with an increased risk of adverse events such as disability, poor quality of life and death.

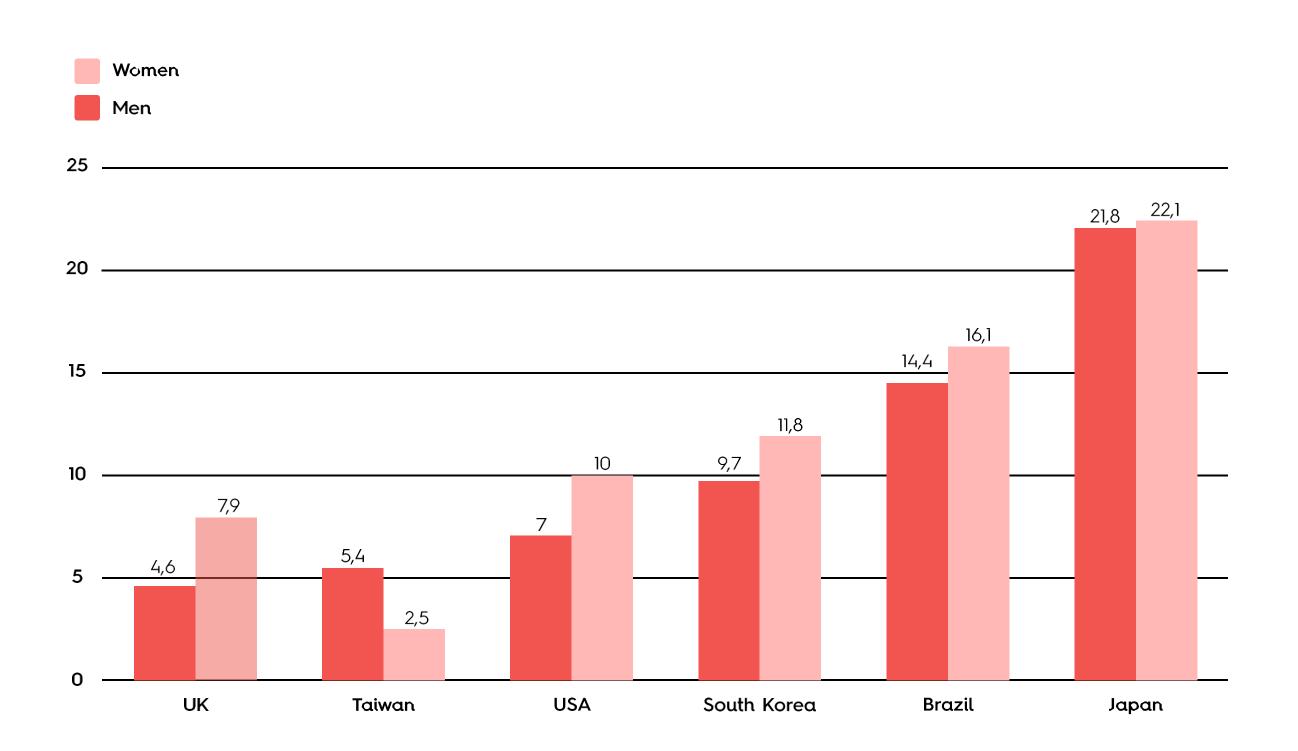






Sarcopenia is estimated to influence 10%-16% of the elderly 60+ population worldwide.







Prevalence of Sarcopenia among patients aged 60+





There is no drug treatment registered for sarcopenia



No pharmacological treatment has yet been approved

for either frailty or sarcopenia.

Recommendations for the prevention and treatment of frailty and sarcopenia are thus still mainly based on lifestyle interventions, such as nutrition and physical exercise.



Vitamins/dietary supplements

These may improve muscle strength and muscle mass, but no solid clinical evidence



Off label Drugs

The use of off label drugs is based on empiric practice. Data on sub population of large trials exist but not approved.





Our solution for patients suffering from sarcopenia



BIO101 (20-hydroxyecdysone):



First drug candidate to complete Phase 2 (SARA-INT) with clinically meaningful outcome on mobility

On track to prepare the Phase 3 program, through approvals of CTA and granted by EMA and FDA

Other drug candidates including Myostatin inhibitors and SARMs halted for lack of effectiveness in neuromuscular diseases







SARA-INT: Phase 2 trial overview



Design

- Global, double-blind, randomized, placebocontrolled trial: NCT03452488
- Assess safety and efficacy of two doses of BIO101 (20-hydroxyecdysone) administered orally until the loss of mobility and over 26 weeks, as compared to placebo
- Treatment effect on improvement of physical function (gait speed) and on decrease of risk of mobility disability

Endpoints

- Primary
 - Gait speed in the 400-meter walk test
- Secondary
- Short Physical Performance Battery (SPPB)
- Handgrip muscle strength
- Patient reported outcomes (PRO)

Patient Population

- Age: 65 years old or over
- Low mobility measured by Short Performance
 Physical Battery (SPPB) ≤8 out of 12
- Able to complete the 400MWT within 15 min without sitting down, help from another person, or use of a walker.
- Sarcopenia FNIH criteria:
 ✓lean mass: ALM/BMI < 0.789 in men and 0.512 in women, or ALM <19.75 kg in men and <15.02 kg in women as measured by DXA





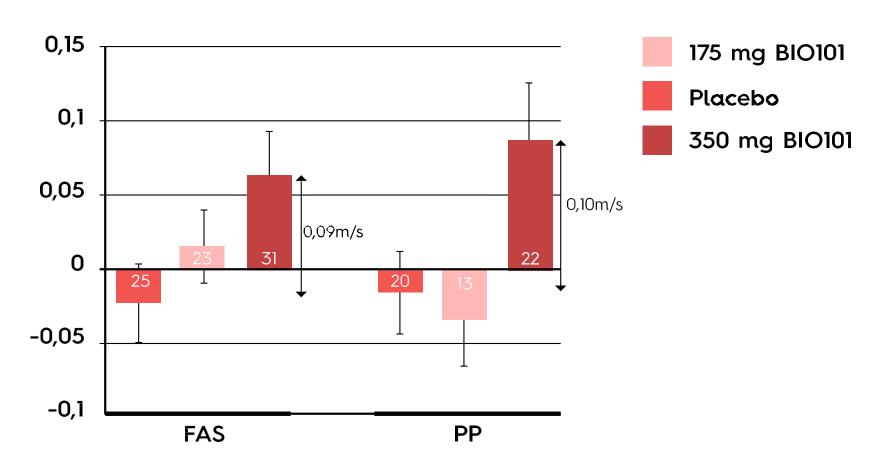
Promising results obtained in SARA-INT phase 2 trial



BIO101 (20-hydroxyecdysone) significantly improves the 400 MWT gait speed, the primary endpoint, in the PP population after 6 months of treatment

- Global, double-blind, randomized, placebo-controlled trial in patients with aged-related sarcopenia at risk of mobility disability to evaluate safety and efficacy of BlO101 (20-hydroxyecdysone)
- At the highest dose of 350 mg bid: clinically meaningful improvement of 0.10 m/s in the PP population (significant, p=0.008) compared to placebo for the 400MWT gait speed after 6 months of treatment
- This gait speed level of 0.10 m/s is known to be associated with a reduction in mobility disability and mortality in the elderly
- BIO101 (20-hydroxyecdysone) demonstrated the same effects on mobility in the sarcopenic obese subpopulation.

Change from baseline at M6 Gait speed



Treatment effect is nominally significant in PP population at M6 (p = 0.008)





SARA-31 - Phase 3 development plan



Design

- Global, double-blind, randomized, phase 3 placebo-controlled trial
- Assess safety and efficacy of BIO101 (20-hydroxyecdysone) 350 mg BID administered orally over at least 52 weeks, as compared to placebo
- Treatment effect based on estimation of the risk of mobility disability

2023

Endpoints

- Primary
- Major Mobility Disability (MMD)
 assessed by the inability to complete
 the 400-meter walk test (400MWT)
 within 15 min
- Secondary
 - Gait speed 4-meter from Short
 - Physical Performance Battery (SPPB)

Handgrip Strength (HGS)

Patient Reported Outcomes (PRO)

2024 2025

Patient Population

- Age: 65 years old or over
- Low mobility measured by Short Performance
 Physical Battery: SPPB 3 ≤ SPPB ≤ 7
- Low Handgrip Strength (HGS < 20 and <35 kg in female and male)
- Slow walkers (gait speed < 0.8 m/s)
- Reporting a loss of motor function over the last year

2026

350 mg b.i.d of BIO101 (20-hydroxyecdysone)

Product

CTA in Europe/US

SARA-31 Phase 3 (depending on partnership)



BIO101 (20-hydroxyecdysone)

in Obesity





Muscle wasting associated with pharmacology treatment of obesity: an unmet medical need



Obesity is a serious chronic disease

1bn

Adults and children are currently living with obesity globally.

3x

The global prevalence of obesity has more than tripled since 1975.

\$4tn

The global cost of treating obesity-related complications is expected to rise by over \$4 trillion by 2035.

Up to 40%

Total weight loss that comes from muscle when obese patients are treated with GLP-1RA.

nature biotechnology

After obesity drugs' success, companies rush to preserve skeletal muscle Nature Biotechnology. 2024 42(3):351-353

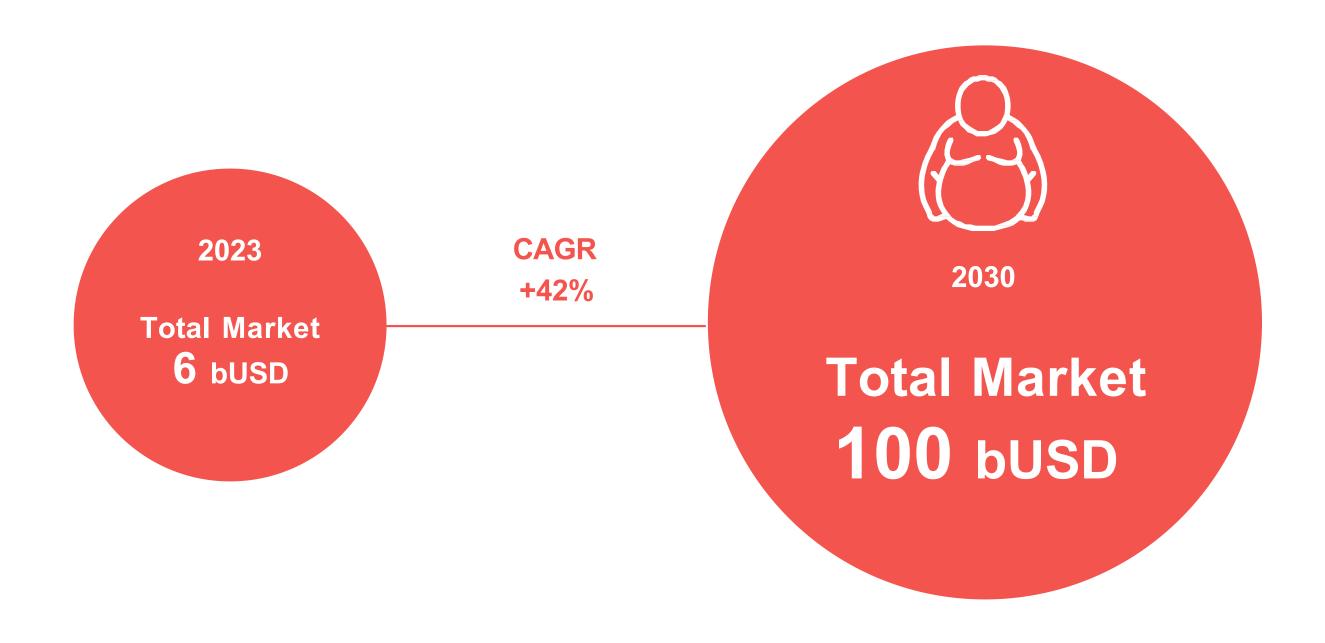
« [There is a need to] counter the side effects of dramatic weight loss [induced by GLP-1s]. [Biotechs] are searching whether it is possible for people to lose weight on these GLP-1 RAagonists without losing muscle. »





According to analysts, 13% of US adult population would be treated with an anti-obesity medication by 2030





Goldman Sachs

"In 2030, we estimate that ~15mn adults in the US will be treated with AOM for chronic weight management (excluding patients treated for type 2 diabetes), which represents ~13% penetration into the U.S. adult population"





Potential attributes of BIO101 (20-hydroxyecdysone) in obese patients treated with GLP-1RA





Effects on muscle wasting:

- Preservation of muscle strength
- Reduction of muscle mass loss
- Improvement of mobility



Effects on fat tissues:

Increase of fat mass loss



Convenient and safe administration:

- Oral route
- Adequate safety demonstrated in adults from trials in other indications

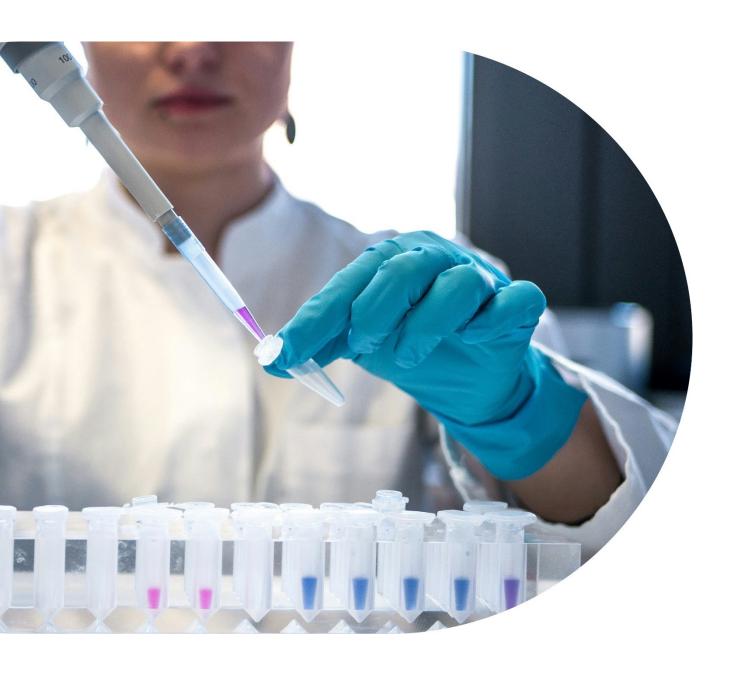






Supportive preclinical data in obesity





Metabolic effects in obese mice:

- Protective effect of BIO101 (20-hydroxyecdysone) in mice fed an obesity-inducing high-fat diet, preventing adipose tissue development
- Anti-obesity effect by increase in energy expenditure

Muscle function in mice fed high fat:

• Improved physical performances in adult and old animals orally treated with BIO101 (20-hydroxyecdysone)



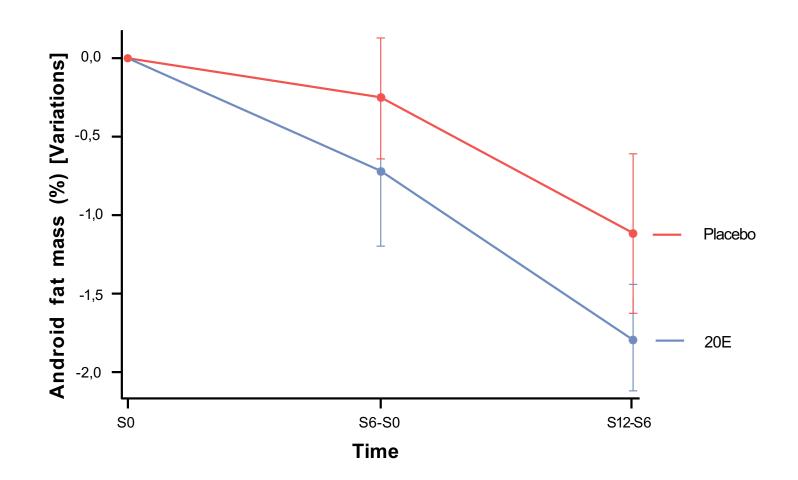


Promising clinical data in obese patients on hypocaloric diets for weight-loss



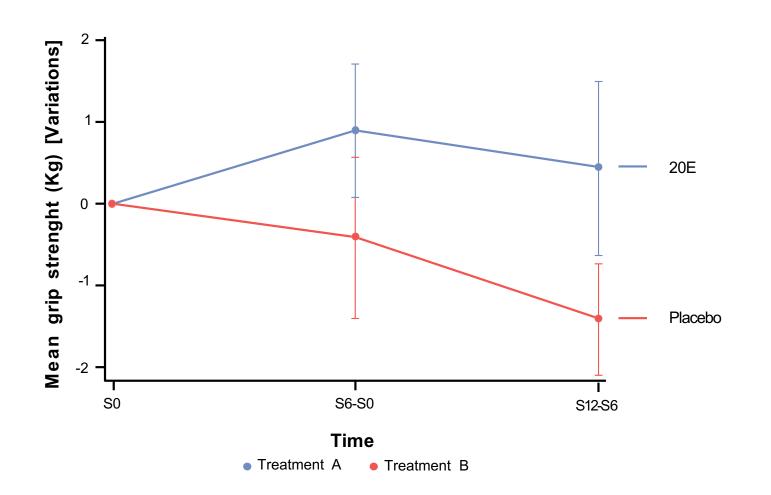
Android fat mass

(p=0.0386)



Handgrip strength

patients with weight loss >5% (p=0.0974)



20-hydroxyecdysone (20E) daily dose of 37.5 mg (given in the form of a dietary supplement) compared to placebo (n=58)

12 weeks study, with weight loss on hypocaloric diet for six weeks (S0-S6) followed by a normocaloric diet for six weeks (S6-S12)





OBA – Phase 2 development plan



Design

- Randomized, double-blind, placebo-controlled phase 2 trial
- Assess efficacy and safety of BIO101 350 BID (20-hydroxyecdysone) mg administered orally over 21 weeks

Endpoints

- Primary
- Muscle strenght (knee extension)
- Secondary
- Walking speed (6-minute walking test)
- Muscle strength normalized in relation to muscle mass
- Weight, muscle mass and fat mass
- Symptoms reported by patients (PROs)

Patient Population

- 164 obese patients treated with GLP-1 RAs, together with hypocaloric dieting
- Obese patients (BMI ≥30) or overweight (BMI ≥27 with one or more sequalae e.g. hypertension and sleep apnoea)

Product 2024

2025



IND in the USA First patient enrolled

Last patient

Report of the results





in SARIs

(Severe Acute Respiratory Infections)

Ruvembri[™] is the marketing name for BIO101 (20-hydroxyecdysone) in Covid-19 indication

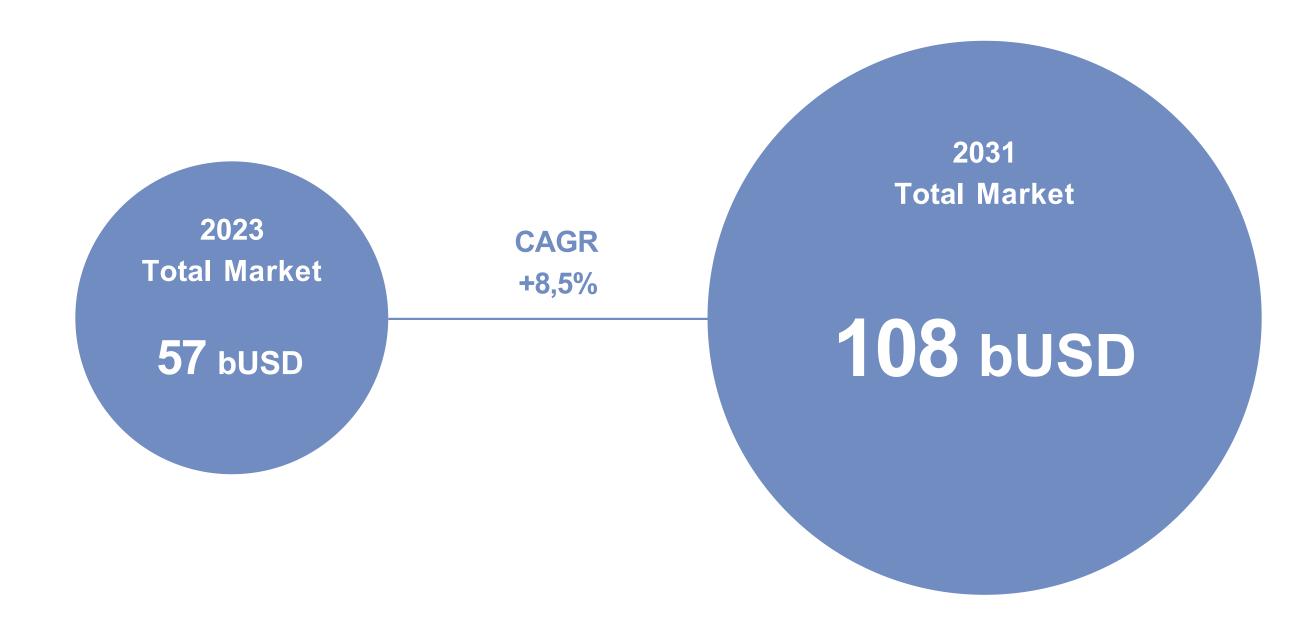




Global Respiratory Infection treatment market will reach more than 100bUSd by 2031



Medical research, increasing awareness and government initiatives will drive market growth





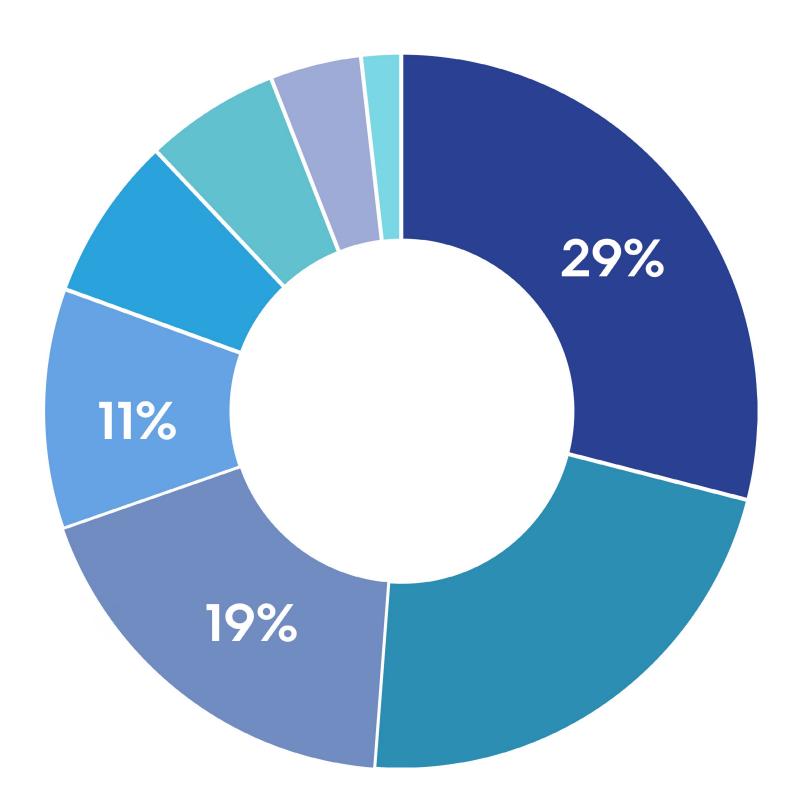


In 2023, Covid treatments represent 29% of the Respiratory Infections market



Global treatment market by virus type (2023)

- COVID
- Rhinovirus (Common Cold)
- Respiratory Syncytial Virus (RSV)
- Influenza (FLU)
- Parainfluenza
- Adenoviruses
- Enterovirus
- Others







17% of patients hospitalized for Covid are still dying



What's happening in reality?



Patient hospitalized for severe COVID19

53%

Number of comorbidities: 12%

Main comoborbidities:

Hypertension: 33%
Diabetes: 19%
Obesity: 10%



68y

Main symptoms:

Acute Respiratory Failure: 27%

Atrial Fibriliation: 12%



Admission to ICU: 16%

Mean Stay in ICU: 15 days

In hospital death: 17% In ICU death: 27%





COVA Study: Targeting Hospitalized Patients with severe respiratory symptoms due COVID-19





Patients aged 45 and above, with proven COVID-19, and severe respiratory symptoms:

- With evidence of respiratory decompensation ≤7 days before start of study medication, meeting one of the following :
 - Tachypnea: ≥ 25 breaths per minute
 - Arterial oxygen saturation 92% or less

Hospitalized patients with respiratory failure estimated to 15-18% of hospitalized patients: ca 500 new patients per day or 180,000 patients/year in the USA (CDC data, October 27, 2022)

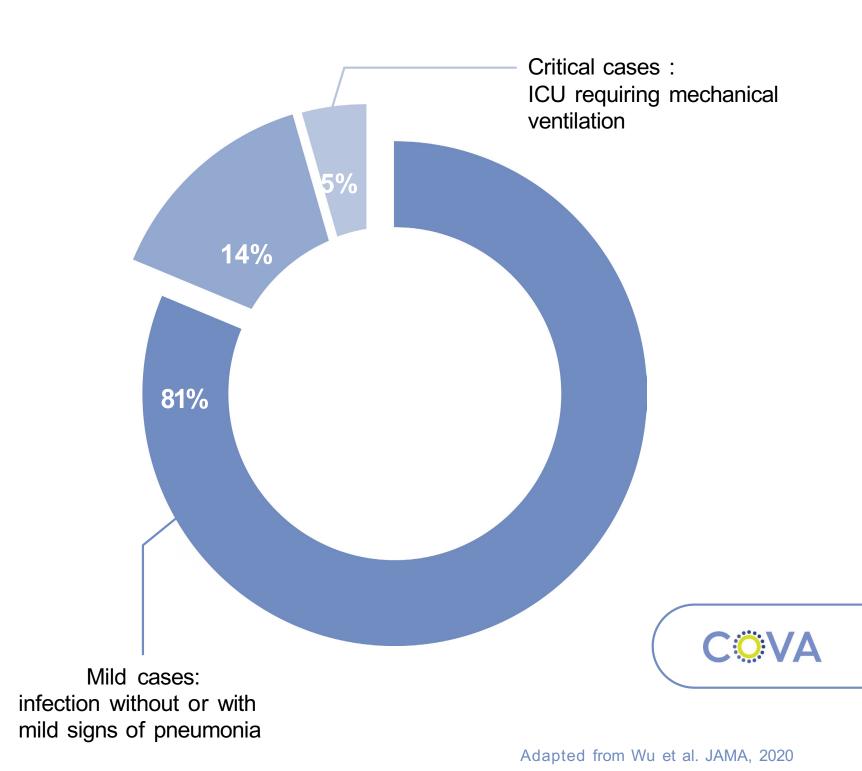


Allowed medications:

- Antiviral agents such as remdesivir, PaxlovidTM
- Anti-inflammatory agents such as dexamethasone, tocilizumabTM

Severe cases:

hospitalized with hypoxemia, tachypnea or pneumonia





Phase 2-3 COVA clinical study to evaluate of Ruvembri[™] in the treatment of severe forms of COVID-19



THE LANCET



Design

- Administration of 350 mg b.i.d of BIO101
- Global, multi-center, double-blind, placebo-controlled group Phase 2-3 sequential (2 parts) adaptive design
- International study including 37 clinical centers in US, Brazil, France & Belgium

Endpoints & Study Follow-Up

- Primary endpoint: proportion of patients with respiratory failure or early death within 28 days
- Secondary endpoints: mortality at 28 and 90 days; discharge at 28 days
- End of study: Q2 2022 (N=237) after early study termination

Inclusion criteria

- Age: 45 years old or over
- Hospitalized for severe respiratory symptoms and with proven Covid-19 infections
- Patients with hypoxemia (<92%) or tachypnea (> 25 breaths/min)
- All authorized Covid-19 drugs (anti-viral or anti-inflammatory)





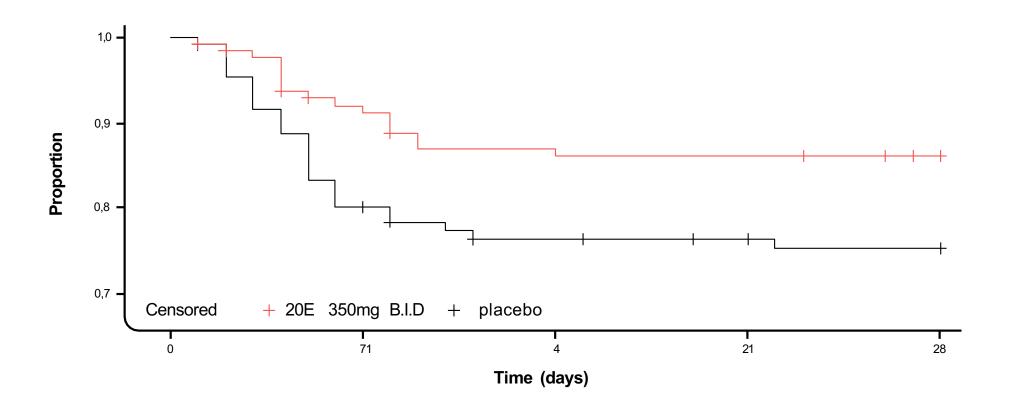
Positive results strongly supporting therapeutic potential of RuvembriTM in severe COVID-19: respiratory failure or early death



Respiratory Failure or early death: The study met primary endpoint

- Reduction in the risk of early death or respiratory failure at day
 28 by 44% (p=0.043, CMH test)
- Time to early death or respiratory failure over 28 days was lower (p=0.022, Kaplan Meier analysis)
- Post hoc analysis confirmed the reduction in the risk of early death
 or respiratory failure in the ITT population and in the PP population

Proportion without respiratory failure or early death, Kaplan-Meier Analysis, ITT population







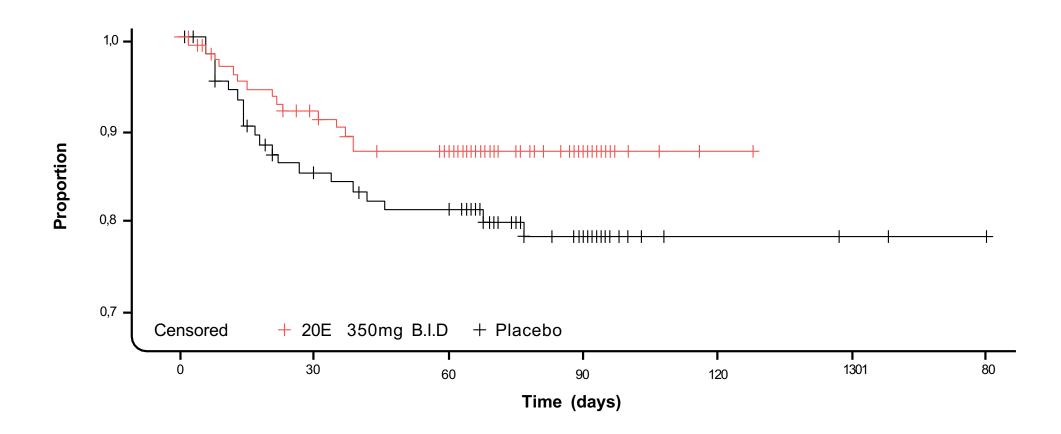
Positive results strongly supporting therapeutic potential of RuvembriTM in severe COVID-19: mortality and safety



Mortality follow-up over 90 days and safety:

- Kaplan Meier post hoc analysis showed a reduction in the risk of death at day 90 of 43% (p=0.076) in the ITT population and 70% (p=0.016) in the PP population
- Very good safety profile with lower proportion of adverse events, especially respiratory adverse events (57% vs. 64%)
- Lower proportion of patients with severe adverse events compared to placebo (25% vs. 31%)

Proportion without death, Kaplan-Meier Analysis, ITT population







Biophytis initiates market access processes for BIO101 treatment of severe forms of COVID-19





Early access:

- EAP in France: application for early access will be re-submitted in 2024
- EAP in Brazil: new application to be submitted to ANVISA for an EAP program, with initiation expected in 2024



BIO101 (20-hydroxyecdysone)

in Duchenne Muscular Dystrophy



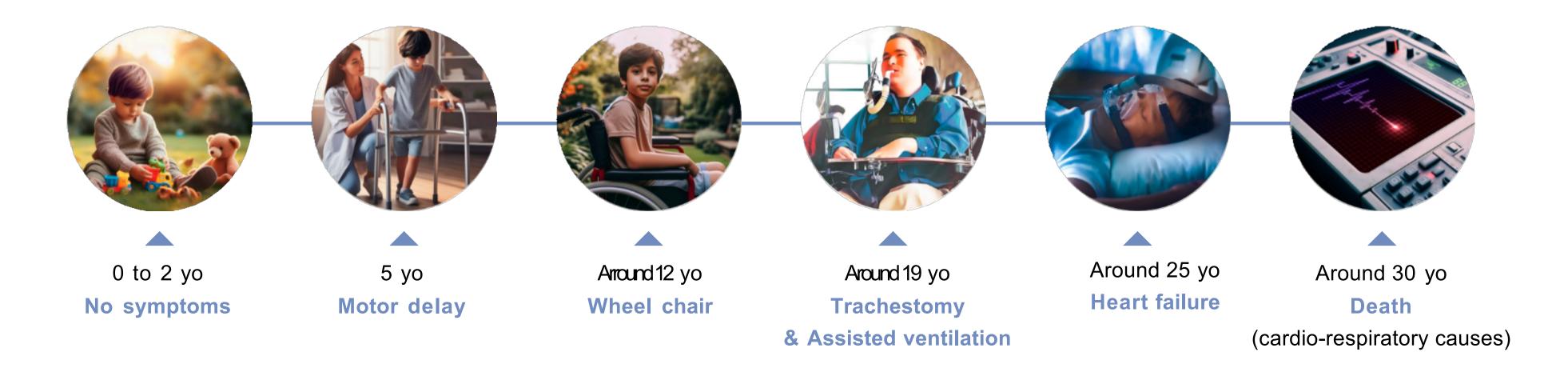


The life of patients with Duchenne Muscular Dystrophy (DMD)



Orphan genetic disease affecting 1/5,000 boys at birth (220,000 patients worldwide)

"Duchenne is every child and parents' worst nightmare come true" (Victoria, Mother of Dougie)



- Degenerative : every muscle is slowly and inexorably damaged (dystrophin deficiency)
- It can affect anyone: 1/3 arise from random spontaneous genetic mutations, which may occur during any pregnancy





There is no effective treatment



Despite research progress, no treatment is able to cure or effectively control the progression of the disease



Corticosteroids

(Prednisone, deflazacort, vamorolone)

They are the standard of care, but their use is controversial and not uniformly recommended.

- Mobility loss delayed by 2 years
- Serious side effects (weight gain, behaviour disorders, muscle wasting, osteoporosis, cataracts, high blood pressure...)
- Long-term use associated with more serious sequelae (69% of complications reported in non-ambulatory patients)

Source: Orphanet J. Rare Dis. doi.org/10.1186/s13023-021-01758-9



Gene-based Therapies

(exon skipping, microdystrophin, etc...)

Gene therapies have been considered to be a revolution for the past 35 years, but what are the concrete results today?

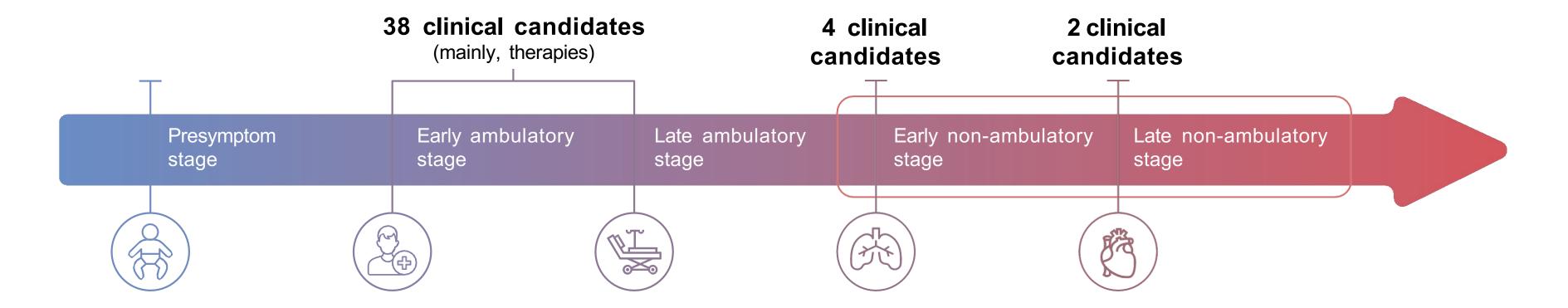
- Limited effectiveness¹
- Highly restricted number of addressed patients (e.g. 13% for eteplirsen², and limited to young patients)
- Toxicity issues (several deaths suspected³)
- Outrageously expensive (\$3,2M/patient for Elevidys⁴)





Late-stage patients are neglected





- No approuved drug for their specific respiratory problems
- Excluded from current clinicals trials
- Average age for tracheostomy is 19 years old¹
- How do we treat these children who cannot breathe properly as we speak?
- Ventilatory assistance, mostly invasive, has extended life expectancy by 10 years, BUT with drastic impact on quality of life





BIO101 (20-hydroxyecdysone) in DMD: Experts and Stakeholders insights

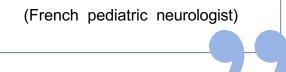
Diophytis

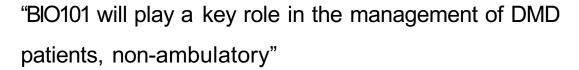
BIO101 in DMD : the experts speak



"Potential benefits of BIO101, including:

- The indication to all DMD patients no matter gene mutation
- The ease of administration
- The lack of complex monitoring"





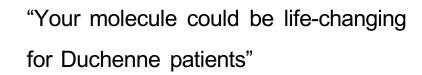
(US pediatric neurologist, Penn State Milton S. Hershey Medical Center



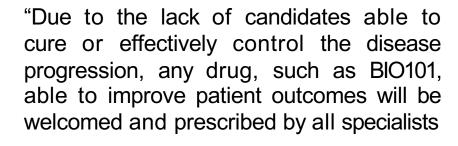
"The only barriers to BIO101 adoption by US specialists could be patient access restrictions,

i.e., high price and lack of reimbursement"

(US Payer)



(French Muscular Dystrophy Association, AFM-Telethon)



(US Clinical expert)





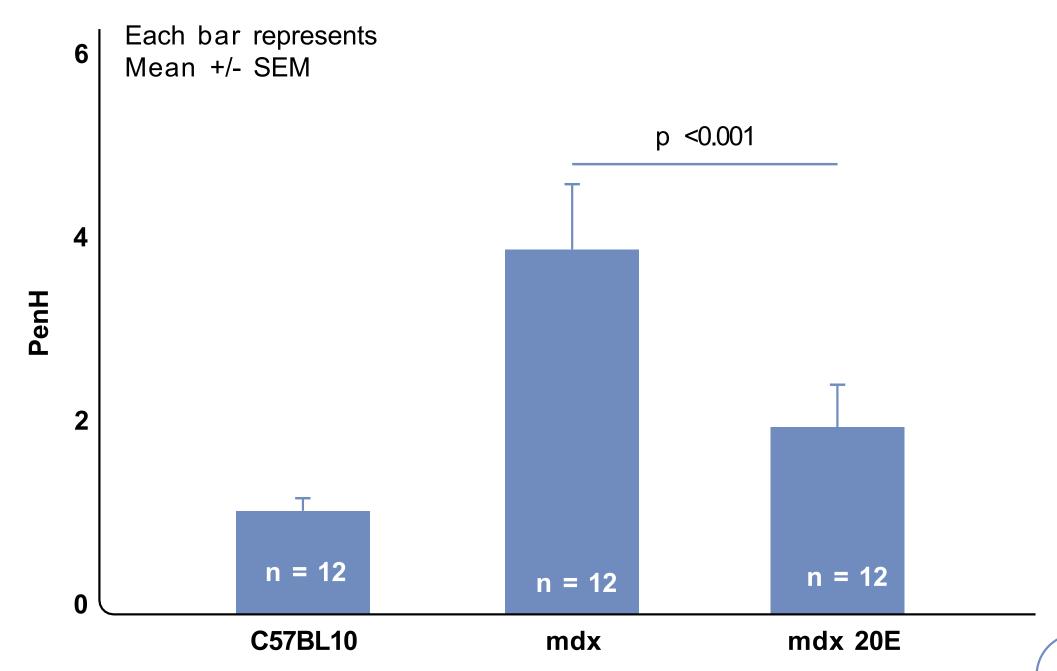
Our solution: A first-in-class medication



BIO101 (20-hydroxyecdysone) aims to improve breathing capacity



Improvement in airway responsiveness (PenH) in C57BL10-mdx mice.







Our solution: A first-in-class medication



BIO101 (20-hydroxyecdysone) aims to improve non ambulatory patients breathing capacity

New therapeutic class New molecular target

- Validated mechanism of action
- Activation of MAS receptor² (renin-angiotensin system)
- Regulation of smooth, cardiac and skeletal muscle metabolism

Good safety profile Low side effects

Clinical trials on motor function

(Sarcopenia, Phase 2)

Clinical trials on respiratory function

(severe Covid-19, Phase 3)

- Preclinical studies in DMD models :
 motorrespiratory and cardiac function
- Preliminary juvenile tox studies

Remarkable activity in preclinical models

Ease of administration and Affordable cost

- API manufactured at industrial scale
- Advanced CMC
- Oral suspension adapted to DMD patients

Rock-solid IP

• 3 patent families granted in key countries

Orphan designation by EMA & FDA

DMD clinical protocol validated by experts

Highly supported by KOLs & patient associations



its use and preparation

FR3065644¹



Preparing to start phase 1-2 clinical study in DMD



Design

- A Randomized, Double-Blind, multi-center
 Phase 1-2 Study
- Evaluate the Safety, Efficacy, Pharmacokinetics, and Pharmacodynamics of BIO101 (20-hydroxyecdysone) in Non-Ambulatory DMD Patients with Respiratory Deterioration.
- Pediatric oral formulation (powder) of BlO101 (20-hydroxyecdysone)

Endpoints

- Primary
- change from baseline in Forced vital capacity (FVC)
- Secondary: The Peak Expiratory Flow (PEF), Performance of Upper Limbs (PUL) scale, Grip strength (MyoGrip)
- Part 1 (N=15): Safety, tolerability & PK 7 days of escalating dose)
- Part 2 (N=45): Safety and efficacy on respiratory function (FVC, PEF) of one dose for 48 weeks

Patient Population

- Age: ≥12 years old
- Non-ambulatory DMD patients
- Patients at risk of respiratory failure

Product

2023

2024

2025

2026



Amendment to CTA approval

Phases 1-2 study



Key milestones in the development of BIO101 (20-hydroxyecdysone)



	Achieved in the last 12 months	Anticipated in the next 12 months		
ISARA	Authorization to start phase 3 SARA-31 study in Belgium and the US	Start of phase 3 SARA-31 study depending on partnership		
●BA	Preparation of the OBA Phase 2 study New patent application	Start of OBA phase 2 study pending regulatory approval and depending on financial resources		
C:::VA	Phase 2/3 COVA Study : Results published and promising clinical benefits for BIO101 (20-hydroxyecdysone)	Launch of Early Access programs in France and Brazil Start of phase 3 study depending on partnership		
MYODA	Preparation of an amended protocol to regulatory agencies (FDA, EMA)	Start of phases 1/2 study depending on financial resources		

Biophytis x Blanver: a first strategic partnership validating our innovation



Partnering strategy

- Objective: sign agreements with pharmaceutical companies for the co-development and future commercialization of BIO101 (20-hydroxyecdysone)
- Scope: regional or global deals
- Contribution to financing the company: agreements including upfront/milestones and royalties on future sales

Blanver agreement

- Exclusive license agreement covering the 4 indications under development for BIO101 in Latin America
- Biophytis will receive an upfront payment and additional payments based on the achievement of targets, for a total amount of up to €108 million, as well as double-digit royalties on future product sales.
- Biophytis and Blanver aim to collaborate on manufacturing and clinical development for Latin America.
- Sergio Frangioni, CEO of Blanver, said: "Innovation is part of Blanver's DNA, and we are delighted to partner with Biophytis to introduce this unique medicine to Latin America"

Scientific Advisory Board



Pr. Jean Mariani, President



Professor of neuroscience and biology of aging and Director of Charles Foix Institute of Longevity at Sorbonne University

Emeritus Professor (PU-PH) at the Sorbonne University's School of Medicine



René Lafont

Co-Founder & Professor emeritus and former Dean of the life sciences department at Sorbonne University

185 scientific articles + 59 reviews and book chapters



Dr. Roger Fielding

Professor of Medicine, Tufts University School of Medicine

Director and Sr. Scientist Jean Mayer
USDA Human Nutrition Research
Center on Aging



Pr. Bernard Levy

Professor Emeritus of Physiology and a senior member of PARCC

Headed the physiology department and the Inserm cardiovascular research center at Lariboisière



Pr. Jose-Alain Sahel

Chair of the department of ophthalmology at University of Pittsburgh School of Medicine and director of the UPMC eye center

Paris and professor at the Sorbonne's medical



Dr. Thomas Voit

Professor, University College London

Director of the Research Center of the Great Ormond Street Hospital for Children



Dr. Yann Meunier

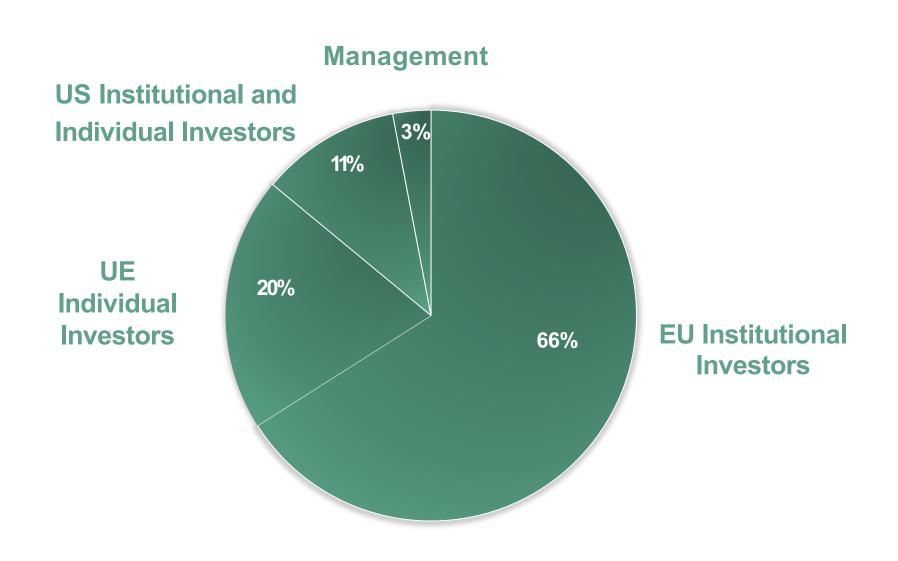
Professor, Director of the International Institute of Medicine and Science

Has led clinical trials for new treatments for HIV/AIDS

Financial data



Shareholding structure



Number of shares: 5,254,245 (June 24, 2024)



Key financial figures

Listing Euronext (ALBPS) and US market (OTC)

Cash position:

- €5.6m (December 31, 2023)
- 4m issued in convertible bonds in 2024
- Cash flow horizon: August 2024
- Atlas convertible bond facility up to €16m available until June
 2026



Analyst Coverage

- H.C. Wainwright Joe Pantginis, Ph.D.
- Kepler Cheuvreux Nicolas Pauillac
- Invest Securities Jamila El Bougrini, Ph.D.

