

## WE CARE FOR THE RARE



**Corporate presentation** 

**December 2022** 

An integrated orphan drug company, focusing on late-stage development for commercialization

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## Agenda



- An integrated orphan drug company, focusing on late-stage development for commercialization
- Emcitate®
  - MCT8-deficiency and clinical experience with Emcitate
  - Regulatory pathway to submissions in EU and US
  - Commercial opportunity
- Aladote®
  - Paracetamol/Acetaminophen overdose and clinical experience with Aladote
  - Regulatory pathway to submissions in EU and US
  - Commercial opportunity
- The orphan drug segment
- Summary
- **Appendix**

## WE CARE FOR THE RARE

1.

An integrated orphan drug company, focusing on late-stage development for commercialization

## An integrated orphan drug company, focusing on late-stage development for commercialization



- Dedicated orphan drug company Two late-stage assets: **Emcitate** and **Aladote**
- Target **MAA/NDA** submissions: Emcitate 2023 and Aladote 2025
- Highly attractive **orphan drug segment** with potential >\$1Bn annual sales opportunity
- Plan to launch through small in-house commercial organization in the EU and North America
- **Strong team** with late-stage orphan clinical development, registration and commercialization experience from:



Listed on NASDAQ Stockholm (EGTX) HQ in Stockholm, Sweden ~30 FTEs

















## Building a sustainable orphan drug company

### WE CARE

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- Successfully develop *Emcitate* and *Aladote* for market approvals in 2024 and 2025/26, respectively
- Commercialize *Emcitate* and *Aladote* through an inhouse focused organization in Europe/ North America and partnerships in RoW
- Realize the full potential of our products via life-cycle management
- Ensure fast and broad access to our products for the benefit of patients worldwide
- Identify further assets that address the significant unmet medical need for patients with rare diseases
- Provide an open culture that encourages Collaboration, Courage & Commitment
- Egetis financial objective is to create increased value for shareholders in the long term

To bring unique therapies to patients with rare diseases that extend and improve quality of life

To create value for patients, society and shareholders by developing and providing a portfolio of unique products for the treatment of rare diseases with substantial medical need



VISION



## Orphan drug segment – a highly attractive opportunity



### Shorter clinical development time<sup>1</sup>

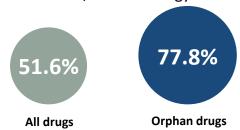
Phase II to launch Average # of years



### Higher probability of success<sup>3</sup>

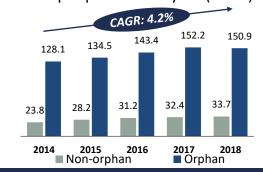
#### Phase III to approval

POS in metabolic/endocrinology indications



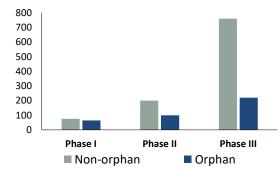
### Higher attainable prices<sup>2</sup>

Mean cost per patient and year (USDk)

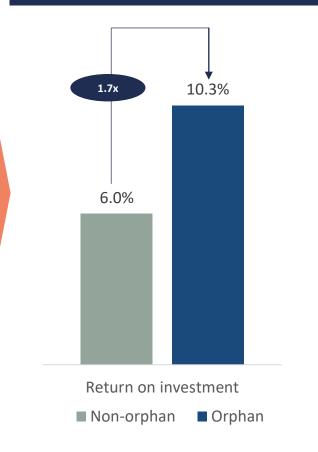


### Fewer patients for clinical trials<sup>4</sup>

#### Patients per trial



### **Orphan drugs attractive returns**<sup>5</sup>



## **Pipeline overview**

Planned Emcitate EU and US filings in 2023



Candidate	Preclinical Phase I	Phase II/III	MAA/NDA	Comments
Emcitate EU MCT8 deficiency			H1 2023	- All clinical data available for submission
Emcitate US MCT8 deficiency			mid 2023	- 16 patients, 30-day randomized trial to be initiated in 2022
Emcitate MCT8 deficiency		Triac Trial II		<ul><li>Fully recruited; data mid 2024</li><li>Neurocognitive endpoints; post approval study</li></ul>
<i>Emcitate</i> RTH-β				- ODD received by FDA & EMA in 2022 - Development pathway under evaluation
Aladote Paracetamol overdose			2025	<ul><li>Start of pivotal study in 2023</li><li>ODD received by FDA &amp; EMA</li></ul>

## Two highly promising orphan drug candidates

### Emcitate® – Therapy for MCT8 deficiency

- MCT8 deficiency affects ~1:70,000 males: high unmet medical need, no available treatment. No competing sponsored products in clinical development
- Orphan Drug Desgination in EU & US
- US Rare Pediatric Disease Designation, eligible for Priority Review Voucher. Fast track designation granted by FDA
- Triac Trial I (Phase IIb) completed with significant and clinically relevant effects on T3 levels and chronic thyrotoxicosis
- Real-world data published 2021 confirms long-term efficacy and safety of Emcitate
- MAA in H1 2023 based on existing clinical data
- NDA in mid 2023, after conducting a 30 days placebo-controlled study in 16 patients to verify the results on T3
- Triac Trial II fully recruited; to establish the effects of early intervention on neurocognitive development, previously seen in Triac Trial I. Results expected mid 2024
- More than 160 patients are being treated with Emcitate on a named patient basis

## Aladote® – To prevent acute liver injury caused by paracetamol poisoning

- Paracetamol poisoning is one of the most common overdoses with >175,000 hospital admissions globally per annum
- No adequate treatment exists for increased risk patients
- Orphan drug designation (ODD) granted in the US & EU
- Successful results from Phase Ib/IIa study in paracetamol overdosed patients
- Pivotal Phase IIb/III study planned for marketing authorization application in both US and EU, targeting study start in 2022
- No competing products in clinical development

### Commercialisation of *Emcitate & Aladote*

### Commercial infrastructure build up initiated

### Strong success factors...

- High unmet medical need without competing compounds
- Centralized, focused target groups of specialists
- Top-down scientific sales approach
- Leading KOL support
- Treatment algorithms highly protocol driven

...for sustainable, profitable & lean commercialisation

- Building inhouse commercial capabilities for launch of Emcitate® and Aladote® in EU and US
- Small and focused footprint with an estimated < 50 FTEs considered sufficient for both assets
- Retain larger share of product revenues over time within Company
- Commercialisation in other territories through partners

## MCT8 deficiency: a detrimental condition with significant unmet medical need



#### What is MCT8 deficiency?

- · Genetic X-linked disorder
- Impaired thyroid hormone trafficking across cellular membranes
- MCT8 is a key thyroid hormone transporter in the body
- Prevalence 1:70,000 males



Patients with MCT8 Deficiency1)

#### What does it mean?

- Non-functional MCT8 protein: T3 cannot cross blood-brainbarrier
- Low amounts of thyroid hormone in the brain & CNS
- Disrupted feedback loop results in a compensatory increase in circulating thyroid hormone

 Simultaneous too high & too low thyroid hormone in different tissues

#### What are the challenges?

- Patients appear normal at birth
- Initial symptoms within the first months of life
- Severe intellectual disability
- Most patients never able to sit or walk; limited ability to communicate
- Life-long morbidity: agitation, CV symptoms, wasting & impaired life expectancy

 Heavily dependant on caregivers resulting in very high disease burden

### How do you manage the disease?

- No available therapy
- Easy diagnosis once considered with readily available, low-cost lab-test
- Large proportion of patients remain undiagnosed with significant delay to diagnosis



 Significant unmet medical need: humanitarian, health economic, societal

### Quick facts from natural history<sup>2</sup>

Median onset of symptoms: 4 months

Median age of diagnosis: 24 months

Patients surviving into adulthood: 70%

Severe intellectual disability: 100%

Ability to sit independently: 8%

Hypotonia, hypertonia

& persistence of primitive reflexes: 90%

Severe underweight: 75%

Cardiac arrythmias (PAC): 76%

Median life expectancy: 35 years

Life long 24-hour care: 100%

### Orphan drug candidate

with clear scientific and mechanistic rationale and established safety profile

### Difference normal MCT8 and deficiency of MCT8

 Thyroid hormone T3 requires transporters such as MCT8 to enter the target cells

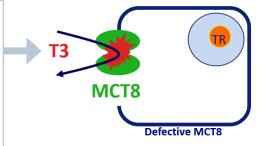
### Normal MCT8 🚺

- Functional thyroid gland producing
- Production of functional MCT8
- → T3 cross cell membrane and enters target cell

## MCT8 Norma

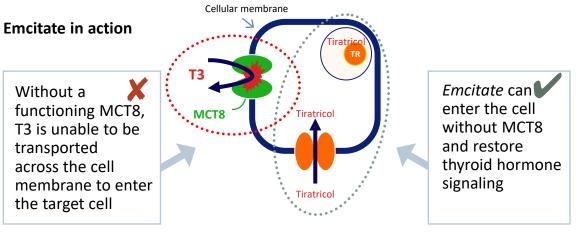
### Mutated MCT8 X

- Functional thyroid gland producing T3
- Absence or loss of function of MCT8 on the cell surface
- → T3 cannot cross cell membrane and fails to enter cells



### **Emcitate** (tiratricol) – Addressing MCT8 deficiency

- Tiratricol is a small molecule thyroid hormone T3 analogue
- Unlike T3, tiratricol can cross cellular membranes without a functional MCT8 transporter
- Tiratricol can bypass the problem in patients with MCT8 deficiency, enter MCT8 deficient cells and restore thyroid hormone signalling
- Experience from 40 years on the French market in a different indication, owned and controlled by the company



### **Emcitate® Overview**



Lead candidate for addressing MCT8 deficiency, a condition with high unmet medical need and no available treatment



- Triac Trial I completed with significant and clinically relevant effects
- Erasmus Medical Center cohort study confirms long-term efficacy and safety for up to 6 years (2021)
- Triac Trial II, early intervention trial in young subjects to establish the effect on neurocognitive development, previously seen in Triac Trial I. Fully recruited April 2022, 22 patients. Results expected H1 2024



- Orphan drug designation in EU & US, US Rare Pediatric Disease Designation eligible for Priority Review Voucher
- Fast track designation granted by FDA
- Intend to submit MAA to the EMA based on existing clinical data H1 2023
- US **NDA submission planned mid-2023**: A 30-day, placebo-controlled study in 16 patients will be conducted to verify the results on T3 levels seen in previous clinical trials and publications



- Est. 10k 15k MCT8 deficiency patients (1:70k males), no sponsor-initiated trials ongoing in MCT8 deficiency
- Analogue orphan drugs priced at premium
- Launched disease awareness initiatives to support diagnosis of MCT8 deficiency
- More than **160 patients** are being treated with Emcitate on an individual license or compassionate use basis, following individual regulatory approvals from national regulatory agencies
- Expected market exclusivity is 10y in EU (ODD), 7y in US (ODD)

## Overview of completed Phase IIb – Triac Trial I



- Evaluate the efficacy and safety of oral administration of tiratricol in male patients with MCT8 deficiency of all ages
- Highly significant primary outcome Change in T3 serum concentrations
- Safe and tolerable
- Results published in The Lancet 2019

Secondary objective and results

- Change in other thyroid hormone function tests, thyrotoxic symptoms and markers
- Significant and clinically relevant effects observed across secondary endpoints

### **Description**

- An international, single-arm, open-label, Phase II trial
- ClinicalTrials.gov identifier: NCT02060474

# of patients

46 MCT8 patients in 9 countries

**Timetable** 

- Initiated in 2014 (first patient in)
- Completed in 2018

### THE LANCET

**\ (1)** 

Effectiveness and safety of the tri-iodothyronine analogue Triac in children and adults with MCT8 deficiency: an international, single-arm, open-label, phase 2 trial

Stefan Groeneweg, Robin P Peeters, Carla Moran, Athanasia Stoupa, Françoise Auriol, Davide Tonduti, Alice Dica, Laura Paone, Mara Rozenkova, Jana Malikova, Adri van der Walt, Irenaeus F.M. de Coa, Anne McGowan, Gret a Lyons, Fernke K. Aarsen, Diana Barca, Ingrid M. van Beynum, MariekeM van der Knoop, Jurgen Jansen, Martien Manshande\*, Roelineke J. Lunsing, Stan Nowak, Corstiaan A. den Uil, M. Carola Zillikens, Frank E Visser, Paul Vrijmoet h. Marie Clair e Y de Wit, Nicole I Wolf, Angelique Zandstra, Gautam Ambegoonkar, Yogen Singh, Yalanda B de Rijke, Marco Medici, Enrico S Bertini, Sylvia Deposeter, Jan Lebl, Marco Cappa, Linda De Meideir\*, Heiko Krude, Dana Craiu, Federica Zibordi, Isabelle Oliver Petit, Michel Polak, Krishna Chatterjee, TheoJ Visser\*, W Edward Visser

Background Deficiency of the thyroid hormone transporter monocarboxylate transporter 8 (MCT8) causes severe LinuxiDiabetesEnd intellectual and motor disability and high serum tri-iodothyronine (T<sub>i</sub>) concentrations (Allan-Herndon-Dudley Patiented Online syndrome). This chronic thyrotoxicosis leads to progressive deterioration in bodyweight, tachycardia, and muscle 109/31, 2019 wasting, predisposing affected individuals to substantial morbidity and mortality. Treatment that safely alleviates peripheral thyrotoxicosis and reverses cerebral by pothyroidism is not yet available. We aimed to investigate the effects of treatment with the T, analogue Triac (3.3', 5-tri-iodothyroacetic acid, or tiratricol), in patients with MCT8 deficiency.

Methods In this investigator-initiated, multicentre, open-label, single-arm, phase 2, pragmatic trial, we investigated the "formannance nee no August effectiveness and safety of oral Triac in male paediatric and adult patients with MCT8 deficiency in eight countries in 2018, Prof Ormannance need no August 1981 (April Ormannance need no August 1981). Europe and one site in South Africa. Triac was administered in a predefined escalating dose schedule-after the initial dose of once-daily 350 µg Triac, the daily dose was increased progressively in 350 µg increments, with the goal of attaining serum total T<sub>3</sub> concentrations within the target range of 1-4-2-5 nmol/L. We assessed changes in several clinical and biochemical signs of hyperthyroidism between baseline and 12 months of treatment. The prespecified Foota Freeton MO. primary endpoint was the change in serum T, concentrations from baseline to month 12. The co-primary endpoints MMMediciMO, Prof T) Vaser Ph were changes in concentrations of serum thyroid-stimulating hormone (TSH), free and total thyroxine (T.), and total WEVERSHIE, Septia reverse T, from baseline to month 12. These analyses were done in patients who received at least one dose of Triac and had at least one post-baseline evaluation of serum throid function. This trial is registered with Clinical Trials.gov, number (M. van Beynum MD).

Findings Between Oct 15, 2014, and June 1, 2017, we screened 50 patients, all of whom were eligible. Of these patients, four (896) patients decided not to participate because of travel commitments. 46 (9296) patients were therefore enrolled MMYAN det Knoop MSC. in the trial to receive Triac (median age 7-1 years [range 0-8-66-8]) . 45 (98%) participants received Triac and had at MCY deWit MD), Department least one follow-up measurement of thyroid function and thus were included in the analyses of the primary endpoints. Of these 45 patients, five did not complete the trial (two patients withdrew [travel burden, severe pre-existing comorbidity], one was lost to follow-up, one developed of Graves disease, and one died of sepsis). Patients required a mean dose of 38.3 µg/kg of bodyweight (range 6.4-84.3) to attain T, concentrations within the target range. Serum T, (Poet's 50 RIBE PRO) concentration decreased from 4-97 nmol/L (SD 1-55) at baseline to 1-82 nmol/L (0-69) at month 12 (mean decrease Medicine 3-15 nmol/L, 95% CI 2-68-3-62; p<0-0001), while serum TSH concentrations decreased from 2-91 mU/L (SD 1-68)

PROME Z BREETS MOL BEARMS to 1-02 mU/L (1-14; mean decrease 1-89 mU/L, 1-39-2-39; p<0-0001) and serum free T, concentrations decreased Medical Centre, Rottestams, from 9.5 pmol/L (SD 2.5) to 3.4 (1.6; mean decrease 6.1 pmol/L (5.4-6.8; p<0.0001). Additionally, serum total T. Netherlands, Welkome Trust concentrations decreased by 31 · 6 nmol/L (28 · 0 - 35 · 2; p<0 · 0001) and reverse T, by 0 · 08 nmol/L (0 · 05 - 0 · 10; p<0 · 0001). Seven treatment-related adverse events (transiently increased perspiration or irritability) occurred in six (13%) patients. 26 serious adverse events that were considered unrelated to treatment occurred in 18 (39%) patients (mostly hospital Cambridge UK (C MOTOL MS) admissions because of infections). One patient died from pulmonary sepsis leading to multi-organ failure, which was unrelated to Triac treatment

Interpretation Key features of peripheral thyrotoxicosis were alleviated in paediatric and adult patients with MCT8 Necestation News Tolkhorts University deficiency who were treated with Triac. Triac seems a reasonable treatment strategy to ameliorate the consequences of untreated peripheral thyrotoxicosis in patients with MCT8 deficiency.

Funding Dutch Scientific Organization, Sherman Foundation, NeMO Foundation, Wellcome Trust, UK National and Genetic, Children's Institute for Health Research Cambridge Biomedical Centre, Toulouse University Hospital, and Una Vita Rara ONLUS. Hospital Toulouse University

of Paedlatric Cardiology

Neurology (FFM de Coo M.C)

K Chatteriee FRCP:- Paediatric Prof M Possi M.Di. Departmen

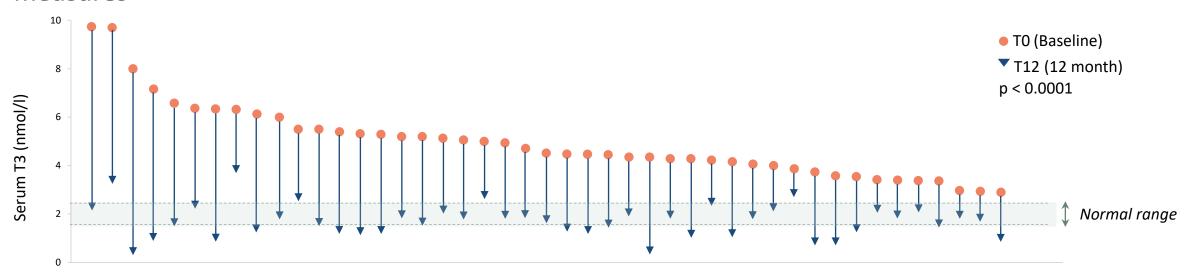
www.thelancet.com/diabetes-endocrinology Published online July 31, 2019 http://dx.doi.org/10.1016/52213-8587(19)30155-X

Corporate presentation | Egetis Therapeutics | 2022-12-20 Source: Groeneweg et al, Lancet D&E 2019;

## Consistent, clinically relevant and highly significant results



Triac Trial I: Reached target level serum T3 & improvements in clinically relevant outcome measures



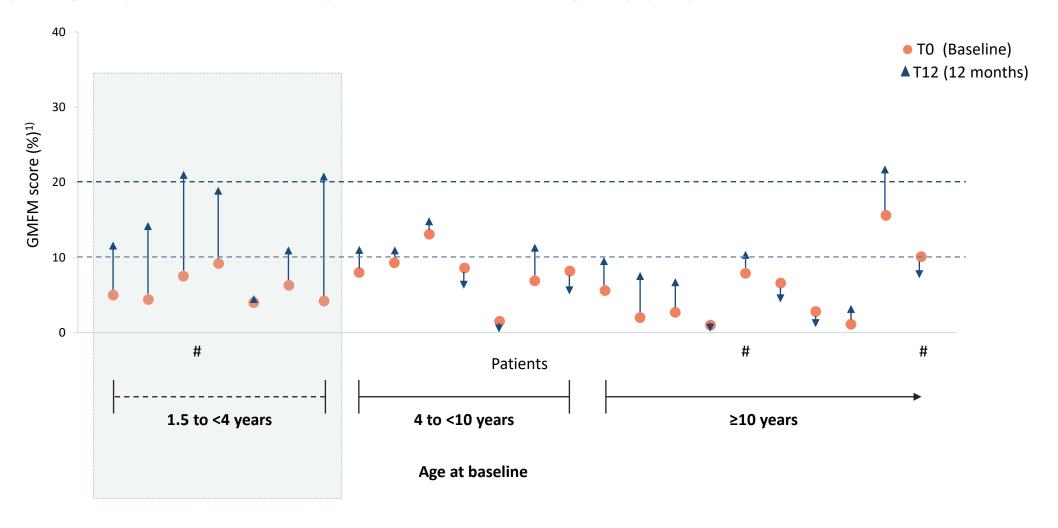
Endpoints	Baseline mean ( $\pm$ SD)	12 months mean ( $\pm$ SD)	Difference in means (95% CI)	p-value
Serum T3 (nmol/L)	4.97 (± 1.55)	1.82 (± 0.69)	-3.15 (-3.62, -2.68)	<0.0001
Weight to age (z score)	-2.98 ( $\pm$ 1.93)	-2.71 ( $\pm$ 1.79)	0.27 (0.03, 0.50)	0.025
Resting heart rate (bpm)	112 ( $\pm$ 23)	104 ( $\pm$ 17)	-9 <i>(-16, -2)</i>	0.01
Mean heart rate 24 h (bpm)	102 ( $\pm$ 14)	97 ( <i>±</i> 9)	-5 <i>(-9, -1)</i>	0.012
SHBG (nmol/L)	212 ( $\pm$ 91)	178 ( $\pm$ 76)	-35 <i>(-55, -15)</i>	0.0013
Total cholesterol (mmol/L)	3.2 ( $\pm$ 0.7)	3.4 <i>( ± 0.7)</i>	0.2 (0.0, 0.3)	0.056
CK (U/L)	108 ( $\pm$ 90)	161 ( $\pm$ 117)	53 <i>(27, 78)</i>	<0.0001

Source: Groeneweg et al; Lancet D&E 2019

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# Triac Trial I: Indication of positive effect on neurocognitive development

In the youngest patients which is further studied in ongoing, fully recruited, Triac Trial II



Source: Groeneweg et al; Lancet D&E 2019

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# New data confirms long-term efficacy and safety of Emcitate® in MCT8 deficiency patients



Published in October, 2021

ACCEPTED MANUSCRIPT

Long-term efficacy of T3 analogue Triac in children and adults with MCT8 deficiency: a real-life retrospective cohort study 3

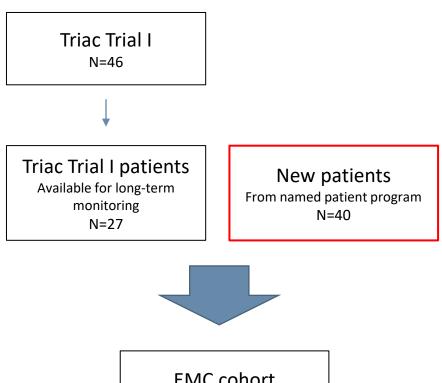


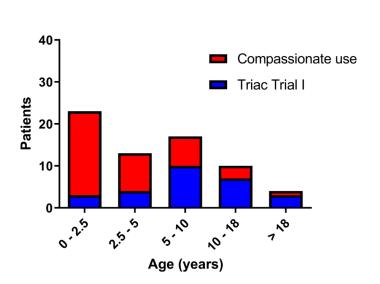
Ferdy S van Geest, Stefan Groeneweg, Erica L T van den Akker, Iuliu Bacos, Diana Barca, Sjoerd A A van den Berg, Enrico Bertini, Doris Brunner, Nicola Brunetti-Pierri, Marco Cappa ... Show more Author Notes

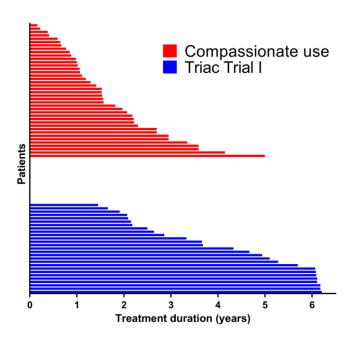
- Investigator-initiated real-world cohort study at 33 sites conducted by the Erasmus Medical Center
- Investigated efficacy and safety of Emcitate in 67 patients with MCT8 deficiency
  - Median baseline age of 4.6 years (range: 0.5–66 years) and were treated with tiratricol for up to 6 years, with a median of 2.2 years (range 0.2 – 6.2 years)
  - The primary endpoint in the study was the change in serum T3 concentration from baseline to last-available measurement
  - The pre-specified secondary endpoints were key measurements of clinical complications of chronic peripheral thyrotoxicosis

## New patient cohort of equal size to the Triac Trial I

Long term follow up, up to >6 years

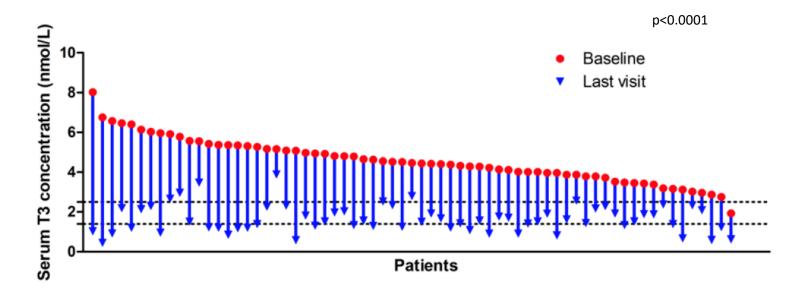


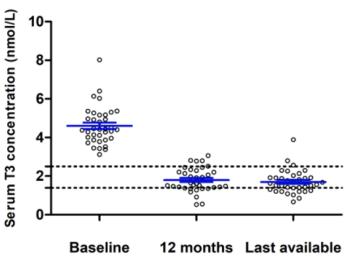




## New cohort confirms primary endpoint results in Triac Trial I

Fast and durable normalization of T3 values in almost all patients





## Consistent, clinically relevant and highly significant results across endpoints

- Data confirm the positive results from previous study, Triac Trial I
- Normalization of serum T3 corresponds to improvement in thyroid hormone status in end target tissues
- Beneficial effects are maintained or continue to improve over time, up to six years
- Consistent efficacy seen across key clinical and biochemical parameters that were sustainably alleviated in patients with MCT8 deficiency regardless of age

Table 2: Changes from baseline to last visit in predefined outcomes

	Baseline mean (SD)	Last visit mean (SD)	Mean change (95% CI)	P value
Primary outcome				
T3 (nmol/L; n=67)	4.58 (1.11)	1.66 (0.69)	-2.92 (-3.23 to -2.61)	<0.0001
Secondary outcomes				
Anthropometric parameters and heart rate				
Body weight (kg; n=58)	17.8 (12.1)	23.6 (14.5)	5.7 (4.2 to 7.2)	
Weight-for-age Z score (n=58)	-2.81 (1.94)	-2.64 (1.81)	0.17 (-0.18 to 0.53)	0.3263
Δ Weight-for-age – predicted weight-for-age Z score (n=55)	0.07 (1.83)	0.79 (1.92)	0.72 (0.36 to 1.09)	0.0002
Height (cm; n=44)	101 (21)	116 (23)	15 (12 to 19)	
Height-for-age Z score (n=44)	-1.84 (1.77)	-1.92 (1.51)	-0.09 (-0.50 to 0.32)	0.6705
Δ Height-for-age – predicted height-for-age Z score (n=43)	-0.44 (1.38)	0.14 (1.41)	0.58 (0.12 to 1.05)	0.0139
Weight-for-height Z score (n=44)	-2.02 (2.49)	-1.50 (2.44)	0.52 (-0.35 to 1.39)	0.2358
Heart rate (bpm; n=48)	113 (21)	97 (20)	-17 (-24 to -10)	< 0.0001
Heart rate-for-age Z score (n=48)	1.59 (0.89)	0.96 (1.01)	-0.64 (- 0.98 to -0.29)	0.0005
Thyroid function tests				
TSH (mU/L; n=62)*	3.32 (2.30)	0.95 (0.73)	-2.38 (-2.98 to -1.77)	<0.000
Free T4 (pmol/L; n=64)	9.5 (2.3)	3.4 (1.6)	-6.1 (-6.7 to -5.4)	<0.000
T4 (nmol/L; n=63)	54.2 (11.8)	18.1 (9.8)	-36.1 (-39.5 to -32.7)	<0.000
Peripheral markers				
Sex hormone-binding globulin (nmol/L; n=48)	245 (99)	209 (92)	-36 (-57 to -16)	0.0008
Creatinine (µmol/L; n=47)	32 (11)	39 (13)	7 (6 to 9)	< 0.0001
Creatine kinase (U/L; n=47)*	110 (87)	128 (80)	18 (-8 to 45)	0.2166

All outcomes were assessed in all patients who received Triac treatment longer than the mean time to optimal dose (5.0 months; N=64). Data are mean. Body weight-for-age Z scores were calculated using TNO growth calculator and heart rate-for-age Z scores were calculated using the Boston Z score calculator. Abbreviations: T3=tri-iodothyronine. TSH=thyroid-stimulating hormone. T4=thyroxine. \*TSH and creatine kinase concentrations were log-transformed to ensure a normal distribution before paired t tests were done (nontransformed means [SDs] and mean changes [95% CIs] are presented for the sake of interpretability).



## Regulatory features of *Emcitate* for MCT8 deficiency





Orphan drug designation for MCT8 deficiency

Eligibility: Market exclusivity 10y (EU) & 7y (US)



**Fast track designation (FDA)** 

Eligibility: Six months review of NDA & rolling submission



Rare pediatric disease designation (FDA)

**Eligibility:** Priority review voucher upon approval\*



MAA: All clinical data available (submission H1 '23)

NDA: Small confirmatory study agreed with FDA (submission mid-'23)





Orphan drug designation for RTH-beta

**Eligibility:** Market exclusivity for distinct indication

<sup>\*</sup>The voucher may be sold to another sponsor (2021-22 range: \$105m-\$110m)

## **Emcitate regulatory pathway to submissions in EU and US**



The first potential treatment for MCT8 deficiency, a rare genetic disease with high unmet medical need and no available treatment

Included in MAA in EU in H1 2023

Included in NDA in US mid 2023

### **Triac Trial I**

- Completed 2018 (Groeneweg, 2019)
- Open-label, international, multicentre study
- N= 46

### **EMC** cohort study

- New data 2021 (van Geest, 2021)
- N= 27 from Triac Trial I & N= 40 new pts from compassionate use

### **Natural history**

- Retrospective data, 2003 to 2019 (Groeneweg, 2020)
- N= 151

## Controlled study (ReTRIACt)

- Start in Q4 2022
- N= 16
- Pts from named patient/ compassionate use program
- Top line results
  H1 2023

To be added post approval when data available

### **Triac Trial II**

- Open-label, international, multi-centre study
- Pts ≤ 30 months of age
- Focus on neurocognition
- N= 22
- Full 96 weeks data, expected mid 2024

Data already available

# Egetis intends to submit MAA for Emcitate® to EMA in H1 2023 based on existing clinical data

- Based on regulatory interactions, Egetis concludes that available data from Triac Trial I and recently published long-term data are sufficient for a Marketing Authorisation Application (MAA) in Europe
- Having all clinical data required for regulatory submission already at hand significantly reduces the remaining risk for Emcitate
- The ongoing Triac Trial II will continue to further establish the effects of early intervention on the neurocognitive development aspects of the disease

## Egetis intends to submit a marketing authorisation application for Emcitate® to the European Medicines Agency based on existing clinical data

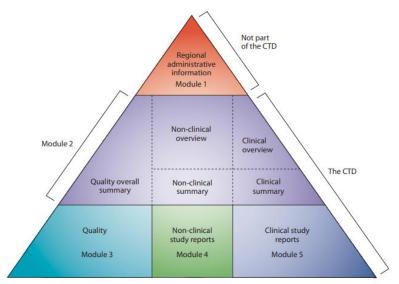
- Egetis concludes, based on recent regulatory interactions, that available Triac Trial I data together
  with recently published long-term data are sufficient for a Marketing Authorisation Application in
  Europe
- Having all clinical data required for regulatory submission already at hand significantly reduces the remaining risk for Emcitate
- Revised submission timelines will be communicated as soon as all parts of the regulatory dossier are confirmed
- Egetis will host a webcast today at 15:00 CET (9:00am ET)

Stockholm, Sweden, December 13, 2021 - Egetis Therapeutics AB (publ) (Nasdaq Stockholm: EGTX) today announced that after a pre-submission meeting held last week with concerned European regulatory agencies (EMA's Rapporteur and Co-Rapporteur), the Company concludes that the clinical data from the Triac Trial I (Groeneweg et al. 2019), together with the data from long-term treatment with Emcitate (tiratricol) for up to six years in 67 patients (van Geest et al. 2021) will be sufficient for a regulatory review of a Marketing Authorisation Application (MAA) to the European Medicines Agency for the treatment of monocarboxylate transporter 8 (MCT8) deficiency. Thus, all clinical data necessary for regulatory submission is already available. The ongoing Triac Trial II will continue to further establish the effects of early intervention on the neurocognitive development aspects of the disease.

"We are delighted with the outcome of the pre-submission meeting, giving us a clear path to our MAA submission, and subsequent regulatory review, based on existing clinical data. Having all clinical data required for regulatory submission already at hand significantly reduces the remaining risk for Emcitate and could also potentially enable an earlier submission in Europe than we had previously expected. This is a substantial opportunity for us and the European patients suffering from MCT8 deficiency. In parallel, as part of our efforts to make Emcitate available as soon as possible, we continue our dialogues with regulatory authorities in other jurisdictions to obtain their views on the available clinical data and its implications for regulatory submissions" said Nicklas Westerholm, CEO, Egetis Therapeutics.

### Content in Emcitate MAA submission





Common technical document

- Regulatory submissions in major regions contain the same type of key information on Efficacy, Safety and Quality
  - presented in a common format (called CTD - Common Technical Document)

### **Key components of regulatory dossier**



\*Pending stability data

## Treatment effects on T3 levels in MCT8-deficiency could provide a basis for marketing approval in the US – NDA targeted in mid 2023



- FDA acknowledges that a treatment effect on T3 levels and the manifestations of chronic thyrotoxicosis in MCT8-deficiency could provide a basis for marketing approval also in the US.
- A small, 30-day, placebo-controlled study in 16 treated patients, to be identified primarily through our existing named patient program, will be conducted to verify the results on T3 levels seen in previous clinical trials and publications in a randomized controlled setting.
- An NDA in the US is targeted to be submitted in mid 2023 under the Fast Track Designation.
- A major step towards marketing authorization and increases the likelihood of success for *Emcitate* and the probability to receive a US Rare Pediatric Disease **Priority Review Voucher** (PRV).

## Egetis concludes that demonstrating treatment effects on T3 levels in MCT8-deficiency could provide a basis for marketing approval for Emcitate® in the US

- Emcitate® (tiratricol) is the first potential treatment of MCT8 deficiency, a rare genetic disease with high unmet medical need and no available treatment
- In recent positive regulatory interactions, FDA acknowledges that a treatment effect on T3 levels and the manifestations of chronic thyrotoxicosis in MCT8-deficiency could provide a basis for marketing approval also in the US.
- An NDA in the US is targeted to be submitted in mid-2023 under the Fast Track Designation.
- A small, 30-day, placebo-controlled study in 16 treated patients, to be identified through the existing named patient program, will be conducted to verify the results on T3 levels seen in previous clinical trials and publications in a randomized controlled setting
- This is a major step towards a marketing application and increases the likelihood of success for Emcitate and the probability for Egetis to receive a US Rare Pediatric Disease Priority Review Voucher (PRV).
- Egetis will host a webcast today at 15:00 CET (9:00am ET)

Stockholm, Sweden, January 18, 2022 - Egetis Therapeutics AB (publ) (Nasdaq Stockholm: EGTX) (the "Company") today announced that in recent regulatory interactions, the US Food and Drug Administration (FDA) acknowledges that demonstrating a treatment effect on thyroid hormone T3 levels and the manifestations of chronic thyrotoxicosis could provide a basis for marketing approval also in the US. Consequently, the Company now has an aligned regulatory strategy for EU and US. The Company intends to submit a New Drug Application (NDA) in the US for Emcitate® (tiratricol) for the treatment of monocarboxylate transporter 8 (MCT8) deficiency in mid-2023 under the Fast Track Designation granted by the FDA in October 2021. This follows the announcement in December 2021 of intention to submit the Marketing Authorisation Application (MAA) for Emcitate to the European Medicines Agency (EMA) based on existing clinical data on the manifestations of chronic thyrotoxicosis in MCT8 deficiency.

## ReTRIACt: withdrawal of *Emcitate* in males with MCT8 Deficiency





## Primary endpoint

 Proportion of participants who meet the rescue criterion (serum total T3 > ULN) during the 30-day double-blind Randomized Treatment Period

## Secondary endpoints

Change in cardiovascular variables

Change in serum thyroid hormone variables

### Description

Double-blind, randomized, multicenter placebo-controlled study

Participants with stable maintenance treatment with Emcitate

- Design agreed with FDA
- Clinicaltrials.gov identifier: NCT05579327

# of patients

- 16 patients, > 4 years of age
- Primary source of patients from NPU program

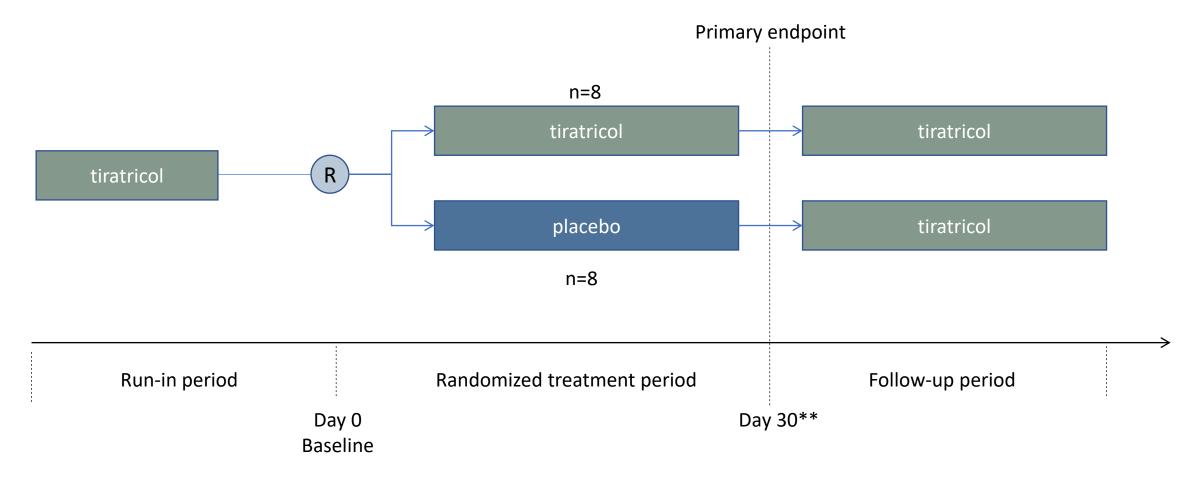
**Timetable** 

- Study to start within the next month
- Completion expected in H1 2023



## Controlled Study (ReTRIACt) – design agreed with FDA

Primary endpoint: Proportion of participants who meet the rescue criterion (T3>ULN) during the 30-day double-blind Randomized Treatment Period



<sup>\*</sup> ULN: Upper Limit of Normal

<sup>\*\*</sup> Randomized treatment period ends after 30 days or when rescue criterion (T3 >ULN) is met, whichever comes first | 2022-12-20

# Triac Trial II fully recruited: to establish effects of early intervention on neurocognitive development



Market approval not dependent on Triac Trial II data

## Primary objective

Confirm findings from Triac Trial I in youngest age group

 Improvement in neurocognitive development as measured by GMFM<sup>1</sup> and BSID-III<sup>2</sup> compared to natural history controls

## Secondary objective

Achievement of motor milestones (e.g. hold head, sit independently)

• Normalization of thyroid hormone function tests and markers of thyrotoxicosis

#### **Description**

Open label, multi-centre trial in very young children with MCT8 deficiency

International trial with 10 centres in CZ, DE, IT, UK, FR, NL, US

Design discussed and anchored with EMA and FDA

ClinicalTrials.gov identifier: NCT02396459



• 22 children, 0-30 months of age



- First Patient First Visit in Dec 2020, recruitment target met in April 2022
- Results from 96 week read out expected mid 2024 and data is expected to be submitted postapproval to regulatory authorities shortly thereafter and available for HTA interactions
- Market approval not dependent on Triac Trial II data



### **Emcitate** milestones and timelines



- US Rare Pediatric
  Disease Designation
- Start Triac Trial II

**US & EU ODD RTH-**β

- Triac Trial II fully recruited
- Start ReTRIACt study for US NDA
- Launch preparations

 EU & US approvals, pricing and launch

- US Priority Review Voucher (upon approval)
- Triac Trial II data

2020 > 2021 > 2022 > 2023 > 2024

- Fast Track Designation US
- Data published confirms long-term efficacy & safety of *Emcitate*

- Top line results ReTRIACt study for US NDA
- Filing EU MAA H1 '23
- Filing US NDA mid '23 (Fast Track Designation)
- Launch preparations



## FDA granted Rare Pediatric Disease designation to Emcitate®

US Rare Pediatric Disease Priority Review Voucher (PRV) provides a ~\$100m opportunity

#### **Overview PRV**

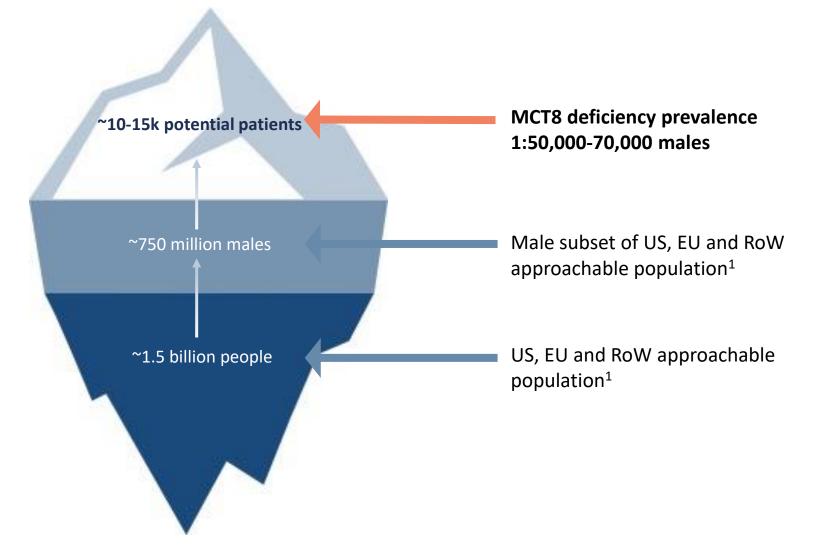
- The FDA grants Rare Pediatric Disease designation (RPD) to therapies for serious or life-threatening diseases affecting fewer than 200,000 people in the USA.
- Sponsors holding a RPD can apply to receive a US Rare Pediatric Disease Priority Review Voucher (PRV) upon approval.
- PRV program recently prolonged until FY 2026.
- Provides accelerated FDA review of a new drug application for another drug candidate, in any indication, shortening time to market in the US.
- The voucher may be sold or transferred to another sponsor.
- During 2021-22 8 PRVs for rare pediatric diseases have been sold, with individual voucher sale prices ranging from \$100m-\$110m.

### **Examples of PRVs sold**

Seller	Buyer	Value	Year
Liminal Biosciences	Undisclosed	\$105M	2021
Mirum Pharmaceuticals	Undisclosed	\$110M	2021
Rhythm Pharmaceuticals	Undisclosed	\$100M	2021
Albireo	Undisclosed	\$105M	2021
Biomarin	Undisclosed	\$110M	2022
BridgeBio	Undisclosed	\$110M	2022
Mallinckrodt	Novartis	\$100M	2022
Marinus Pharmaceuticals	Novo Nordisk	\$110M	2022

## Estimating 10-15k addressable patients globally

No approved treatment for MCT8 deficiency



### MCT8 deficiency epidemiology

- At least one new-born diagnosed per 140,000 live births in the Netherlands in past years, corresponding to 1:70,000 males
- Actual number of patients could be higher:
  - Screening study suggests prevalence of 1:50,000 males<sup>2</sup>
  - Once treatment is available, more patients tend to be diagnosed

## Emcitate® – alleviating patient and societal burden

Aiming to provide value for both patients and society



**Patients** 

- Median life-expectancy of MCT8 patients is 35 years<sup>1</sup>
- Patients underweight for age or without ability to hold head have an even increased risk of premature death

Society

- All MCT8 patients have significant neurocognitive disability from early childhood and typically require constant, life-long supportive care
- A recent study in a condition with similar severity (SMA) estimated total healthcare cost (excluding treatment cost) to USD 138k per patient and year<sup>2</sup>



**Emcitate** holds potential to become the **first approved therapy** to address the root cause of MCT8 deficiency, restore thyroid hormone signaling and thereby **prevent disease progression**, alleviate symptoms and **prolong lives** 



## **Emcitate supplied globally on a named patient basis**

The named patient use (NPU) confirms the significant unmet medical need in MCT8 deficiency and the view on how Emcitate address it

- NPU and compassionate use programs
  - mechanisms to allow early access to a medicine prior to regulatory marketing approval
  - granted to pharmaceuticals under development for situations with high unmet medical needs and where no available treatment alternatives exist or are suitable
- FDA Requested Expanded Access Program
   Transition will Simplify Process for Accessing Emcitate
- Emcitate is being supplied on a named patient basis, following individual approval from the national medicines agencies, to
  - more than 160 patients
  - in over 25 countries





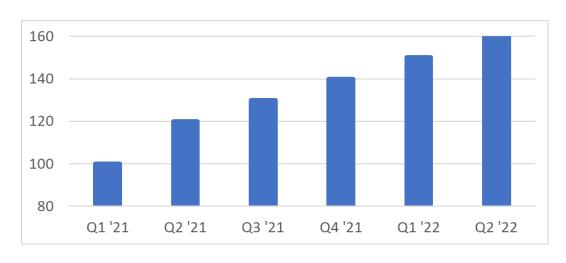


Patient

Prescriber

**National Approval** 

### Patients receiving Emcitate in NPU program



#### Commercialization of *Emcitate*

Disease area conditions provide opportunity for lean commercialization

#### **Favorable conditions for launch success**

Addressing unmet medical need



**Leading KOL support** 



Centralized, focused target groups of specialists eager to improve care



Treatment choice highly protocol driven



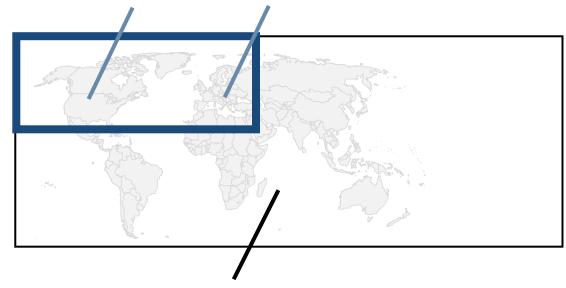
No competition



#### **Stepwise establishing inhouse commercial capabilities**

- Preparing for **2024 launch** in US and Europe with organization of **40-50** employees at time of launch
- Aiming for rapid access to Emcitate for all MCT8 deficiency patients:

US: 2400\* patients Europe: 5400\* patients



Plan to commercialize in rest of world through partners

\*Based on prevalence 1:70,000 males

## Building commercial organization to execute on key activities at the right time for launch success



#### Key projects driven by recognized industry talents recruited to the Egetis Commercial & Medical Affairs Team

- Leadership team brings launch skills and best practices from in total 100+ years at international companies



Henrik Krook, SE VP Commercial Operations





Anny Bedard, US President Egetis North America





Marianne Berrens-Peijnenburg, NL Global Head Medical Affairs





Nigel Nicholls, UK GM for UK & Northern Europe





Nadia Georges, CH Global Head Market Access & Pricing





Raymond Francot, CH GM for DE, AT, CH & Central & Eastern Europe





Peter Verwaijen, NL Global Head Marketing & Brand Strategy





John Walsh, US
VP Medical Affairs North America



#### **Focusing on Critical Areas for Launch Success**



#### Aiming to Improve the Lives of MCT8 Deficiency Patients and their Caregivers

#### **IDENTIFY PATIENTS**

Boost disease awareness, educate on disease\*, diagnosis and newborn screening



#### **ENSURE ACCESS**

Preparing for broad access to Emcitate as soon as possible after marketing authorization



<sup>\*</sup>Emcitate promotion will start at the time of marketing authorization (in line with legislations). Before that, external initiatives are focused on MCT8 deficiency.

### **Enabling patient identification through disease awareness**

MCT8 deficiency awareness and educational activities launched through various channels

#### mct8deficiency.com











## DISEASE AWARENESS AND EDUCATION

- Focus on enabling early and accurate diagnosis
- ↑ number of physicians who
  - Are aware of MCT8 deficiency
  - Can diagnose
  - Understands how to manage MCT8 deficiency

## COLLABORATION WITH PAGs & KOLs

- KOL engagements and peer-to-peer education through national specialist societies
- International & national patient advocacy groups



## EXHIBIT AT SCIENTIFIC/MEDICAL CONFERENCES

- Euro Paediatric Neuro. Society
- European Thyroid Association
- European Society of Paediatric Endocrinology
- International Child Neurology Congress
- American Thyroid Association
- And more...

## OPTIMUM CHANNEL MIX FOR MAXIMUM REACH

- MCT8deficiency.com
- Instagram and Facebook
- Mailing campaigns to HCPs
- Social media and video for MCT8-AHDS day (Oct 8<sup>th</sup>)
- Congresses and F2F interactions
- Publications

#### Aiming for broad access to Emcitate for affected families

Payer projects initiated to generate optimal reimbursed price

- No families should pay out of own pocket
- Payers in general accept higher prices for orphan drugs compared to traditional drugs and especially if they;
  - Address an ultra-rare disease, e.g.
     prevalence less than 1:50,000 people
  - Target a severe disease, i.e. life threatening/debilitating

• **Emcitate** fulfills these criteria, no other drugs available or being developed for MCT8 deficiency



1:70,000 males & even more rare in females



Severe impact on QoL, median survival 35y

#### The pricing & reimbursement work has started

1. VALUE IDENTIFICATION, POSITIONING & EVIDENCE
GENERATION

2. PRICE STRATEGY IMPLEMENTATION & VALUE COMMUNICATION

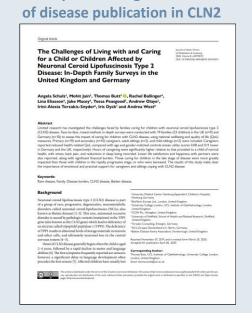
Aiming for that Emcitate as soon as possible after marketing authorization is financed through country specific reimbursement mechanisms and that no family would have to pay for treatment out of own pocket



# Developing a compelling Emcitate clinical and economic value proposition to secure reimbursement & access

Key for payer assessments to describe unmet need & quantify burden of MCT8 deficiency

- The impact of MCT8 deficiency on patients and caregivers is underreported
- Significant clinical and economic burden, both direct and indirect, which will be described and quantified
- Currently **generating data** for payers to answer the question "What is the burden of MCT8 deficiency for patients & their caregivers?"
  - Vignette study Involving treating physicians to derive utility values for a defined range of MCT8 deficiency health states, suitable for costeffectiveness analysis
  - Caregiver study Generate burden of disease data (costs & QoL) from caregivers



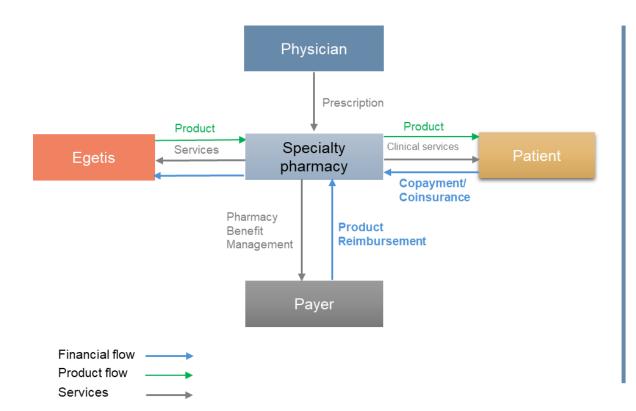
## FDA Requested Expanded Access Program Transition will Simplify Process for Accessing Emcitate



- High demand for single patient INDs (Investigational New Drug) resulting in process delays
- FDA Requested Expanded Access Program Transition will Simplify Process for Accessing Emcitate
- Patient Advocacy efforts focused on educating important stakeholders
- Incorporate the patient voice

## **Exclusive Distribution Model Through Speciality Pharmacy** is Preferred option for Rare Disease





- Insurance resolution and contracting
- Prior authorization support
- Appeals
- Dedicated case managers
- Improves patient experience and outcomes
- Patient Assistance and Copay Support
  - Aim for no family to pay out of pocket

## **US Pricing & Reimbursement**

Relatively straight forward for ultra-orphans with key focus on rarity and severity of disease

#### Analogues selected based on:

- Rarity (ultra-orphan)
- Paediatric
- No treatment options
- Life-long treatment
- Disease severity

#### Emcitate's value drivers confirmed by US payer research:

"You have all the things here: terrible condition, ultra rare, deteriorating cognition, etc"

**Chief Medical Officer Commercial Payer** 

"The product gets paid for because they are kids and they need outcomes"

Medical Director
Paediatrician
Medicaid

"If FDA approves this treatment, we will cover it."

Medical Director,
Paediatrician
Medicaid

#### **US Payer Analogues**

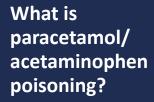
	Exondys® anti-sense oligonucleotide			<b>Brineura®</b> Recombinant enzyme	
Disease	Duchenne Muscular Dystrophy (13% of population)	Urea Cycle Disorders	Primary Hyperoxaluria	CLN2	
Rarity - less than 1:50,000 people	✓	✓	✓	✓	
Severity – life threatening/debilitating	✓	✓	✓	✓	
US gross annual treatment cost	\$750k	\$750k	\$500k	\$750k	



resentation | Egetis Therapeutics | 2022-12-20

## Paracetamol/acetaminophen poisoning

no adequate treatment for increased-risk patients



Minimum toxic dose of paracetamol/acetaminophen in adults is only 7.5g

- Risk factors include malnutrition, alcoholism and consumption of other medications
- Paracetamol/acetaminophen poisoning can lead to acute liver failure, liver transplant or death

How many does it affect?

- 19 billion units of paracetamol /acetaminophen packages are sold in the US alone every year
- >175,000 patients hospitalised globally per annum driven by 89,000 cases/year of paracetamol overdose in the US and 105,000 cases/year in the UK (~ 50% hospitalised)
- ~50% of paracetamol overdose cases are unintentional

Why is current treatment inadequate?

- Efficacy of current NAC (N-acetylcysteine) treatment decreases with time
- Approximately 25% of patients are late arrivals to hospitals (>8h) –
   late arrivals are at increased risk
- There is no effective treatment option for patients at increased risk

A new standard of care is needed

 Aladote® aims to become a new standard of care for patients with increased risk for liver injury in combination with NAC



## Orphan drug candidate

with clear scientific and mechanistic rationale

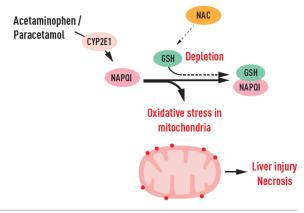
#### Early presenters (<8h) NAC treatment effective against liver injury

 Liver glutathione (GSH) replenished by NAC, toxic NAPQI metabolite excreted as GSH conjugate

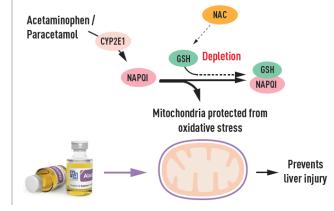


Late presenters (>8h) are at increased-risk for liver injury NAC treatment + Aladote® to prevent liver injury

**Under NAC treatment alone** liver GSH stores depleted by the toxic NAPQI metabolite -> oxidative stress, mitochondrial dysfunction and liver injury (necrosis)



 In most cases NAC effectively prevents liver injury i.e. limited need for Aladote®



Reactive nitrogen species (RNS), Reactive Oxygene Species (ROS)

 Aladote<sup>®</sup> (calmangafodipir) prevents ROS and RNS formation, restores mitochondrial energy production and prevents liver injury

### Overview of completed Phase Ib/IIa



 Met primary endpoint of safety tolerability in the combination of Aladote<sup>®</sup> and NAC

- Results presented at the 58th Annual Meeting of the Society of Toxicology, EASL ILC in April, Vienna and published in Lancet's journal EBioMedicine in 2019
- Presented at, American College of Medical Toxicology (ACMT) and Society of Toxicology (SOT), as novel emerging treatments for acetaminophen/ paracetamol toxicity in 2021

Secondary objectives and results

 Measurements of Alanine transaminase (ALT), international normalised ratio (INR), keratin-18, caspase-cleaved keratin-18 (ccK18) and microRNA-122 (mir122) and glutamate dehydrogenase (GLDH) indicates that Aladote® reduce liver injury

Description

- An open label, rising-dose, randomized study exploring safety and tolerability of Aladote® co-treatment with NAC
- ClinicalTrials.gov identifier: NCT03177395

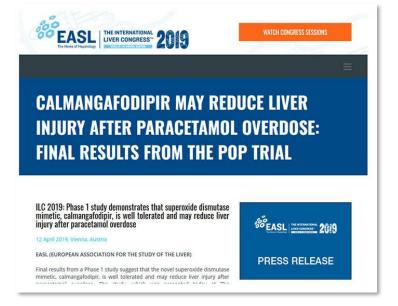
# of patients

 Single ascending dose study in 3 dosing cohorts of 8 patients (N=24) as add-on to NAC regime

**Timetable** 

- Initiated in June 2017 (first patient in)
- Completed in September 2018





## Positive proof-of-principle Phase Ib/IIa results

Indicates that Aladote may reduce liver injury



#### Safety & tolerability

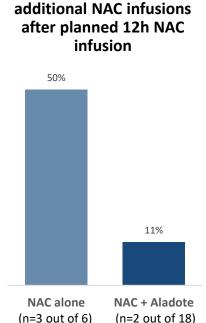
Event	NAC alone	NAC + 2 μmol/kg Aladote	NAC + 5 μmol/kg Aladote	NAC + 10 μmol/kg Aladote
Any AE	6 (100%)	6 (100%)	6 (100%)	6 (100%)
Any SAE	2 (33%)	4 (67%)	2 (33%)	3 (50%)
SAE Starting within 7 days	1 (17%)	1 (17%)	1 (17%)	2 (33%)

- Met primary endpoint of safety tolerability in the combination of Aladote® and NAC
- No AE or SAE probably or definitely related to Aladote®

#### Liver injury – ALT<sup>1</sup> pre-defined secondary outcome

Event	NAC alone	NAC + 2 μmol/kg Aladote	NAC + 5 μmol/kg Aladote	NAC + 10 μmol/kg Aladote
50% ALT increase	2 (33%)	0 (0%)	0 (0%)	1 (17%)
100% ALT increase	1 (17%)	0 (0%)	0 (0%)	1 (17%)
ALT >100 U/L at 10 hours	2 (33%)	0 (0%)	0 (0%)	0 (0%)
ALT >100 U/L at 20 hours	2 (33%)	0 (0%)	0 (0%)	0 (0%)

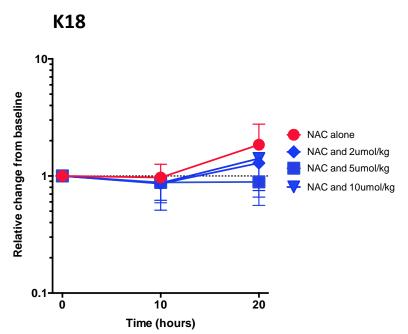
• ALT >100 U/L is the indication to stay in hospital



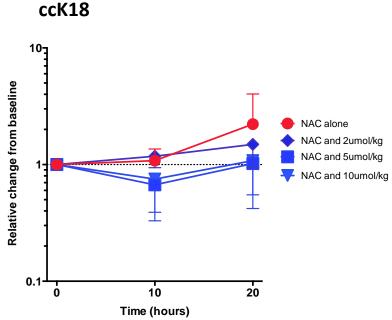
% of patients needing

# Aladote® demonstrates consistent results of reduced liver injury as measured by exploratory biomarkers

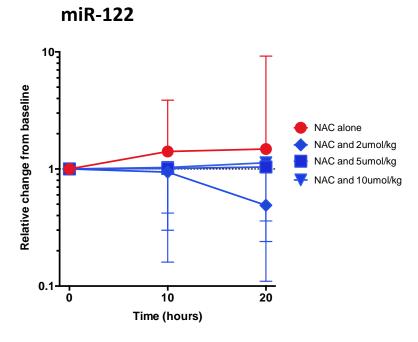




K18 is a measure of cell death and correlate with peak ALT activity during the hospital stay



ccK18, is a measure of cell death and correlate with peak ALT activity during the hospital stay



miR-122 is a liver specific early marker (micro-RNA) for acute liver injury which predicts a rise in ALT activity following paracetamol overdose

resentation | Egetis Therapeutics | 2022-12-20

## ALBATROSS: Phase IIb/III study for US/EU regulatory submission



Patient population

Patients who have overdosed on paracetamol with increased risk of liver damage due to late arrival at hospital (> 8h) who need treatment with NAC

**NAC** regimen

Approved 21 hours NAC regimen

Treatment groups

• 4 groups in combination with NAC: *Aladote* high dose; *Aladote* middle dose; *Aladote* low dose; Placebo

Initiation of active treatment

• IV (bolus) as soon as possible after randomization and after starting NAC treatment (but no later than 4 hours after starting NAC treatment)

**Interim analysis** 

 Interim analysis after 35 patients per treatment group, which includes a futility analysis, dose selection and analysis of continued study size (number of patients)

**Study size** 

250 patients planned

Efficacy endpoints

- Primary: Combination of ALT and INR
- Number (%) of patients who need extended NAC treatment after 21 hours
- Length of hospital stay
- Explorative biomarkers: K18, miR-122 and GLDH



**Study countries** 

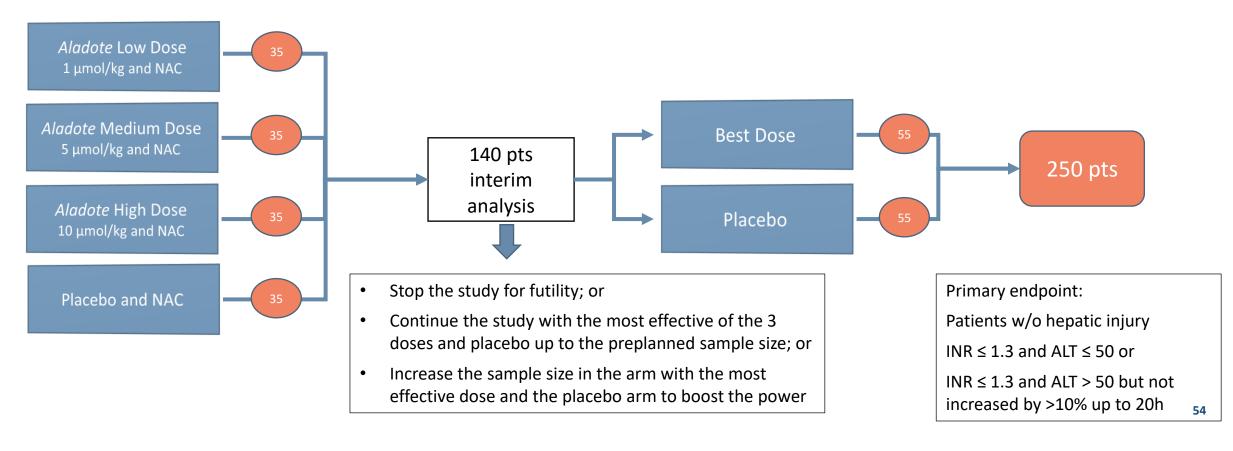
EU, UK and USA

## ALBATROSS: Aladote Phase IIb/III study design



### Seamless Phase IIb/III design

Based on the acetaminophen/paracetamol levels eligible patients will be randomised in a 1:1:1:1 ratio to one of the 4 treatment arms in combination with NAC:



## Aladote clinical development timelines



- Orphan Drug
  Designation EU
- CTA pivotal Phase IIb/III study

- Interim analysis
- Recruitment completed and topline results

2024

2022 > 2023 >

 Start pivotal Phase IIb/III study 2025/26

- Regulatory submissions Europe/US
- Europe/US approvals and launch
- Regulatory submissions ROW



Orphan drug designation in US and EU Composition of matter patent expires in 2032 Method of use patent until 2037 Aladote® - Commercial opportunity resentation | Egetis Therapeutics | 2022-12-20

## Aladote- alleviating patient and societal burden

Aiming to provide value for both patients and society



#### POD is a life threatening condition with remaining medical needs

#### **Patients**

- POD (paracetamol/acetaminophen overdose) can lead to acute liver failure, liver transplant or death
- In US and UK together, yearly > 500 deaths due to POD and more people registered for liver transplantation

#### Society

- In the US the annual cost has been estimated at > \$1bn to treat patients with POD1
- The POD Emergency Department and inpatient cost is approximately USD 13-40k<sup>1</sup>
- The average POD inpatient length of stay is 3.1 days with a variance of +4.4 days for the most severe cases<sup>1</sup>
- US liver transplant costs USD 125-473k<sup>1</sup>



With **Aladote**, the ambition is to **reduce hepatic injury** of POD and thereby contribute to **fewer hospitalization days**, **prevent need** for liver transplantation and **increase survival** 

## Commercialisation of *Aladote* for high-risk POD patients

Very cost-effective since possible to launch through members of Emcitate team



#### **Favorable conditions for launch success**

Addressing unmet medical need



**Leading KOL support** 



Centralized, focused target groups of specialists eager to improve care



Treatment choice highly protocol driven



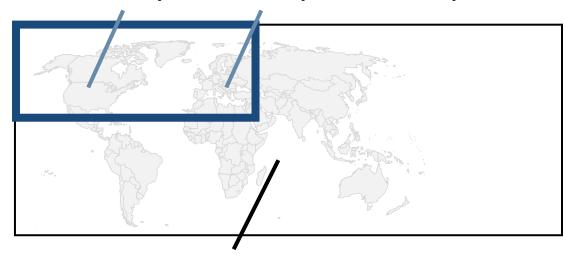
No competition



#### Addressing life-threatening condition

- Anologue antidotes priced at \$3.5k 50k
- National emergency hospital stocking guidelines gives opportunity to work through small team and still ensure rapid sales uptake

Hospitalized POD patients per year
US: > 40,000\* patients Europe: > 140,000\* patients



Commercialization in rest of world managed through partners

<sup>\*</sup>Annual number of POD (paracetamol/acetaminophen overdose) cases hospitalized and receiving i.v. antidote (NAC currently the only option), 25% late arrivals (>8h)

## Analogue antidotes priced at \$ 3.5k - 50k



National emergency hospital stocking guidelines - opportunity for rapid market penetration

- Various antidotes, e.g. vs. drug overdosing, metal poisoning, snake bites and reversal of anticoagulant treatment effects
- Limit morbidity/mortality when used within appropriate time
- National recommendations for stocking of antidotes at hospitals providing emergency care
  - For getting payer/formulary committee acceptance to be stocked, antidotes are in general priced lower than traditional orphan drugs, despite
     often having orphan status
  - Getting included provides great opportunity for rapid market penetration
    - Praxbind stocked in 3,200 US hospitals < 3 years from launch</li>
    - Andexxa sales \$112mn in US alone second year on market
- Analogue antidotes for comparable settings as Aladote have global average costs of \$ 3.5k 50k per treatment

	Naloxone hydrocloride	Praxbind	Andexxa/Ondexxya	Aladote (target profile)
Year of first approval	1971	2015	2018	NA
Poisoning indication	Opioid toxicity	Reversal of anticoagulant effects of the NOAC dabigatran	Reversal of anticoagulant effects of the factor Xa inhibitors apixaban & rivaroxaban	Paracetamol/ acetaminophen toxicity
Cost per treatment	Low since generic	\$ 3.5k – 4.5k	\$ 25k – 50k	TBD

The attractiveness of the orphan drug segment resentation | Egetis Therapeutics | 2022-12-20

## Orphan drug segment – a highly attractive opportunity



Orphan drug designation is awarded to products targeting limited disease populations<sup>1</sup>

More than 7,000 known rare diseases

Approx. 10% of the general population may be affected by a rare disease

Substantial unmet medical need for patients, only 5% of rare diseases have an approved therapy

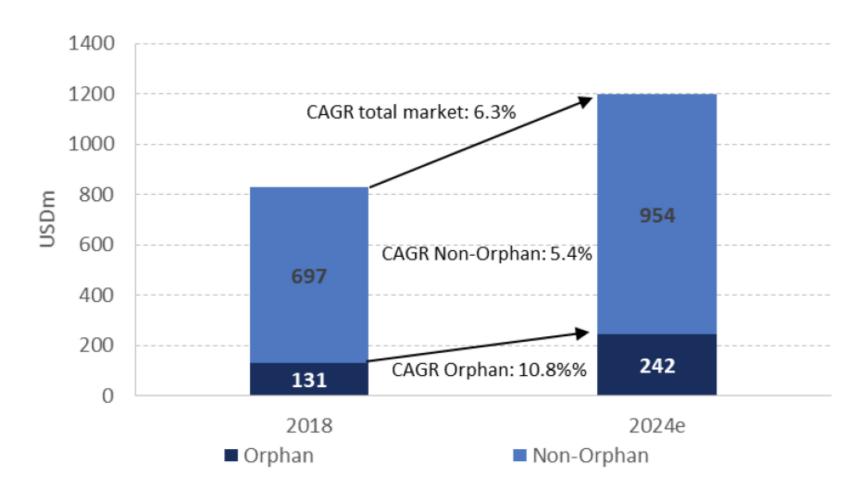
 Less extensive clinical trials Agile and faster development process **Development** Lower costs Lower development risk Free regulatory advice Reduced fees Registration Expedited review Market exclusivity No or few competitors Highly focused target groups **Market** Premium pricing

Well-defined patient populations with substantial unmet medical need

## CAGR estimates of total pharmaceutical market vs orphan



The global orphan or rare disease market size was valued at an estimated USD 140 – 150 bn and is expected to grow at 10-14% CAGR over the coming five years.



**5.**Summary Corporate resentation | Egetis Therapeutics | 2022-12-20 63

## Two highly promising orphan drug candidates

#### Emcitate® – Therapy for MCT8 deficiency

- MCT8 deficiency affects ~1:70,000 males: high unmet medical need, no available treatment. No competing sponsored products in clinical development
- ODD in EU & US
- US Rare Pediatric Disease Designation, eligible for Priority Review Voucher. Fast track designation granted by FDA
- Triac Trial I (Phase IIb) completed with significant and clinically relevant effects on T3 levels and chronic thyrotoxicosis
- Real-world data published 2021 confirms long-term efficacy and safety of Emcitate
- MAA in H1 2023, based on existing clinical data
- NDA in mid 2023, after conducting a 30 days placebo-controlled study in 16 patients to verify the results on T3
- Triac Trial II fully recruited; to establish the effects of early intervention on neurocognitive development, previously seen in Triac Trial I. Results expected in H1 2024
- More than 160 patients are being treated with Emcitate on a named patient basis

## Aladote® – To prevent acute liver injury caused by paracetamol poisoning

- Paracetamol poisoning is one of the most common overdoses with >175,000 hospital admissions globally per annum
- No adequate treatment exists for increased risk patients
- Orphan drug designation (ODD) granted in the US & EU
- Successful results from Phase Ib/IIa study in paracetamol overdosed patients
- Pivotal Phase IIb/III study planned for marketing authorization application in both US and EU, targeting study start in 2023
- No competing products in clinical development

## **Upcoming pipeline milestones**





**Emcitate®** 

Aladote®

- ✓ US & EU ODD RTH-b
- ✓ Recruitment completed in Triac Trial II, Q2 2022
- FPI ReTriact\* trial for US NDA
- Results ReTRIACt\* for US NDA H1 '23
- Filing EU MAA H1 '23
- Filing US NDA mid '23 under Fast Track Designation
- EU approval and launch
- US approval and launch
- US Rare Pediatric Disease Priority Review Voucher
- Topline Triac Trial II

2022

✓ Orphan Drug designation EU

CTA for pivotal Phase IIb/III study

2023

Initiate pivotal Phase IIb/III study

2024

- Interim analysis
- Recruitment completed and topline results



<sup>\* 16</sup> pts randomized 30 day study for US NDA

## An integrated orphan drug company, focusing on late-stage development for commercialization

- Dedicated orphan drug company Two late-stage assets: **Emcitate** and **Aladote**
- Target **MAA/NDA** submissions: Emcitate 2023 and Aladote 2025
- Highly attractive **orphan drug segment** with potential >\$1Bn annual sales opportunity
- Plan to launch through small in-house commercial organization in the EU and North America
- **Strong team** with late-stage orphan clinical development, registration and commercialization experience from:



Listed on NASDAQ Stockholm (EGTX) HQ in Stockholm, Sweden ~30 FTEs







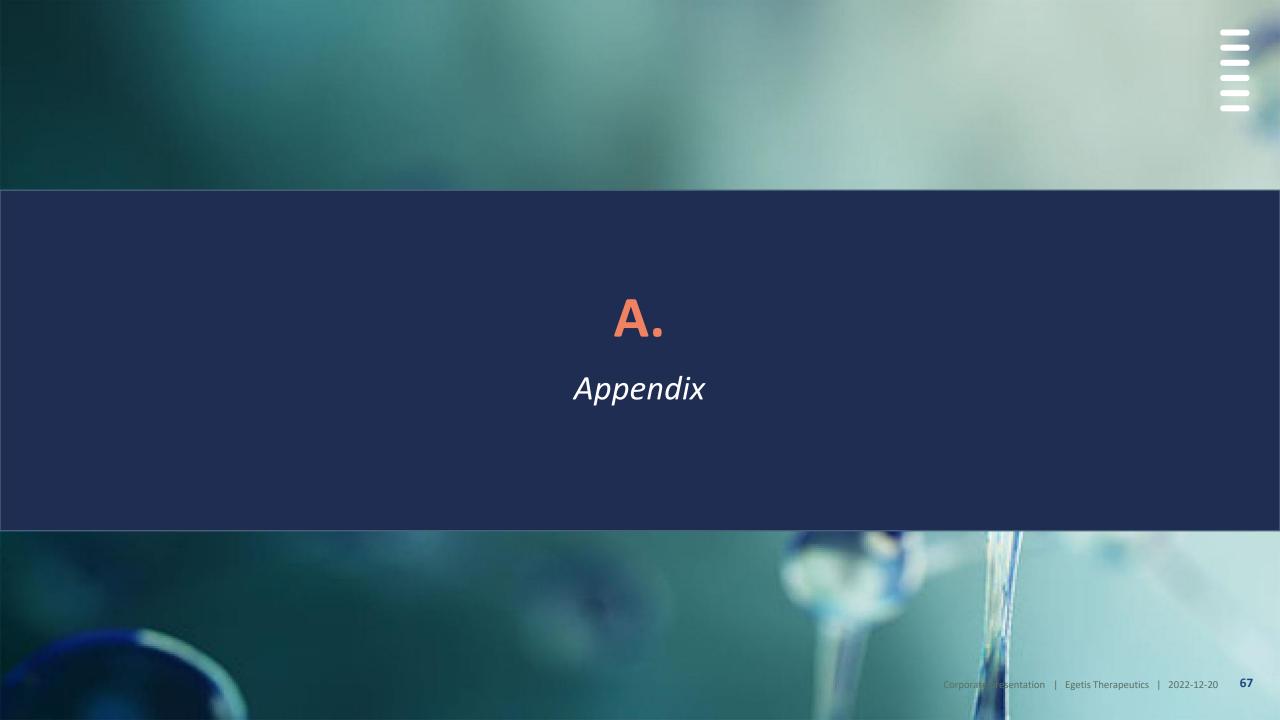












## Leadership team with global experience & proven track record





Nicklas Westerholm CEO

- Joined 2017
- AstraZeneca 1995-2017
- VP Late-stage development CVMD
- Executive Officer & VP Japan Operations
- Director Investor Relations



Yilmaz Mahshid, PhD

- Joined 2021
- Investment Manager & Controller at Industrifonden
- Sell-side analyst at Pareto & Öhman
- CEO Medivir



**Henrik Krook, PhD** *VP Commercial Operations* 

- Joined 2020
- Commercial roles at Alexion, Novartis, Roche and Affibody



**Karl Hård, PhD** *VP IR, Communications & Business Development* 

- Joined 2022
- Redx Pharma, Kiadis, AstraZeneca



**Anny Bedard** *President Egetis North America* 

- Joined 2022
- Commercial leadership roles at Shire and Sarepta



Kristina Sjöblom Nygren, MD CMO

- Joined 2020
- CMO and Head of Development at Santhera
- 18 years at SOBI, Wyeth & AstraZeneca
- Worked as physician in several clinical positions



**Christian Sonesson, PhD** *VP Product Strategy & Development* 

- Joined 2017
- AstraZeneca 13 years
- Late stage development expertise from FORXIGA, MOVANTIK, ONGLYZA, BRILINTA & QTERN

#### **Board of directors**





Thomas Lönngren Chair of the board

- Board member since 2021
- MSc in social and regulatory pharmacy and a degree in Pharmacy, University of Uppsala.
- Previously Executive Director of the European Medicines Agency
- Board member at Compass Pathways and NDA Group



**Peder Walberg** *Board member* 

- Board member since 2020
- Founder and CEO of Rare Thyroid Therapeutics
- MD and BSc in international economy and business administration, Uppsala University
- Other assignments: Board Member of Immedica
- Previous assignments: Founder and CEO, Medical Need, Head of Business Development and Strategy, Swedish Orphan and SOBI. BoD of Wilson Therapeutics and identified Decuprate for treatment of Wilson disease



Gunilla Osswald

Board member

- Board member since 2017
- PhD in biopharmacy and pharmacokinetics
- Other assignments: CEO BioArctic AB



Elisabeth Svanberg
Board member

- Board member since 2017
- MD, PhD, Assoc Professor in surgery
- Other assignments: Chief Development Officer Ixaltis SA. Board member Leo Pharma, Amolyt Pharma and Galapagos



Mats Blom
Board member

- Board member since 2021
- BA, Business Administration and Economics, University of Lund and MBA, IESE University of Navarra
- Other assignments: CFO NorthSea Therapeutics and Board member of Hansa Biopharma and Auris Medical

## **Share Register and Market Cap**

#### 10 largest shareholders

Name	Capital	Votes	Num. of shares	Verified
Peder Walberg	15.74%	15.74%	33 776 221	2022-09-28
Peter Lindell	10.40%	10.40%	22 320 000	2022-09-28
Fjärde AP-fonden	8.67%	8.67%	18 604 690	2022-09-28
Avla Holding AB	8.23%	8.23%	17 668 330	2022-09-28
Flerie Invest AB	6.19%	6.19%	13 280 571	2022-09-28
RegulaPharm AB	4.91%	4.91%	10 531 660	2022-09-28
Linc AB	3.00%	3.00%	6 432 021	2022-09-28
Avanza Pension	2.53%	2.53%	5 418 733	2022-09-28
Unionen	1.99%	1.99%	4 275 833	2022-09-28
Carl Rosvall	1.64%	1.64%	3 520 287	2022-09-28
Total 10	63.30%	63.30%	135 828 346	
Total number of owners	6,446			2022-09-30
Total number of shares	214,589,128			2022-09-30

- Cash position: SEK 190 M (~EUR 18M)\*
- Number of outstanding shares: 214.6M
- MCap: ~SEK 1 billion\*\*
- Listing venue: Nasdaq Stockholm Main Market



**Acquisition of Rare Thyroid Therapeutics on 5 November 2020** 

## The combination will drive synergies

PledPharma and Rare Thyroid Therapeutics merged to launch a new company



#### **PledPharma**

- Team with profound late-stage drug development experience and strong trackrecord
- Listing on Nasdaq Stockholm provides access to public markets and capital as well as visibility
- Desired prospective partner in project collaborations. Previous major license agreement with Solasia
- Efficient internal organisation and strong corporate governance

#### **Rare Thyroid Therapeutics**

- Team with strong track-record of identifying and developing ODDs and creating shareholder value
- Strong network of external project advisors with specialist knowledge. Collaboration with Erasmus Medical Center in Rotterdam
- Founding team with experience from international launch and commercialisation of orphan drugs

#### Synergistic orphan drug focus

- 2020 accelerated PledPharma's strategic review
- Lead asset Aladote® facilitates the new pronounced strategic focus on orphan drug segment
- Emcitate® and RTT's capabilities fit well with the new strategy
- Build critical mass, generate synergies and improve operational effectiveness for projects in the orphan segment
- Size, vicinity and complementary capabilities allow for a fast and smooth integration

## The acquisition and rights issue

Institutional investor base broadened

#### **Acquisition**

- On 5 November 2020, PledPharma acquired all outstanding common shares in Rare Thyroid Therapeutics
- Consideration consisted of a combination of PledPharma common shares and cash
- An upfront cash payment of SEK 60m
- 63.8 million shares representing approx 39% of the total number of outstanding shares in PledPharma post rights issues
- Owners of Rare Thyroid Therapeutics will receive a royalty of 3% of net sales generated through Emcitate<sup>®1</sup>
- Owners of Rare Thyroid Therapeutics will also be granted 50% of the net proceeds from a potential sale of US Rare Pediatric Disease Priority Review Voucher related to Emcitate®

#### **Rights issue**

- Successfully raised SEK 250 million in oversubscribed rights issue (c. SEK 200m) and utilized overallotment option (c. SEK 50m)
  - Subscription price of SEK 5.25 per share corresponding to a 2.5 percent premium to close 2 October 2020
- Institutional investor base broadened
  - Overallotment Option, allocated to the Fourth Swedish National Pension Fund ("AP4"), NYIP (Nyenburgh Holding BV) and Nordic Cross
- The proceeds will be used to finance: (i) the development of Emcitate® and Aladote® to market approval in Europe and USA (60%); (ii) initial commercial preparations (20%); (iii) general corporate purposes and financial flexibility (20%)







### Thank you!

Egetis Therapeutics egetis.com