### EG∃TIS TH∃RAPEUTICS

### WE CARE FOR THE RARE



### **Corporate presentation**

October 2023

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

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

#### **2.** Emcitate

- Overview of MCT8-deficiency
- Clinical experience with Emcitate
- Regulatory pathway to submissions in EU and US
- Commercial opportunity
- **3.** Aladote\*
  - Paracetamol/Acetaminophen overdose and clinical experience with *Aladote*
  - Regulatory pathway to submissions in EU and US
  - Commercial opportunity
- 4. The orphan drug segment
- 5. Summary
- A. Appendix

### WE CARE FOR THE RARE

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\** 

*Emcitate* MAA filed in October 2023 Target *Emcitate* NDA 2024

Highly attractive **orphan drug segment** 



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

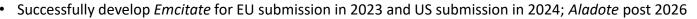
~30 FTEs



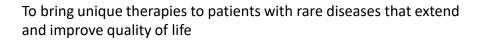
## **Building a sustainable orphan drug company**

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GOALS



- Commercialize *Emcitate* and *Aladote* through an inhouse 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 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

MISSION

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VISION



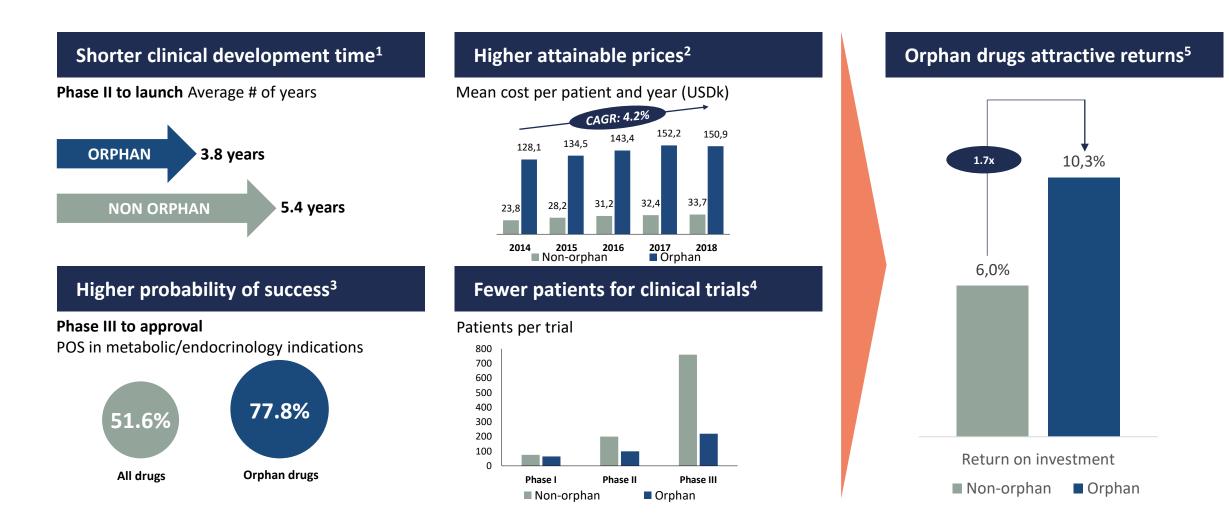
## Termination of discussions regarding a potential acquisition of the Company

Announcement published on May 23, 2023

- Discussions, triggered by an unsolicited approach by an external party, have taken place between certain external parties and Egetis regarding a potential acquisition of the Company
- Discussions have now been terminated as the Board believes the contemplated offer and terms, while providing a premium to the current share price, considerably undervalued the long-term prospects of the Company
- "A transformative period for the Company, with several near-term value creating milestones and the Board of Egetis believes that the strategy to build an independent sustainable rare-disease company life remains the most long-term value creating alternative for our shareholders"
- As a consequence of this intense process and discussions, the timeline for the submission of the marketing authorisation application (MAA) for *Emcitate* (tiratricol) to the European Medicines Agency (EMA) has been extended from the second quarter to the early autumn of 2023\*

<sup>\*</sup> Emcitate MAA filed in October 2023

## **Orphan drug segment – a highly attractive opportunity**

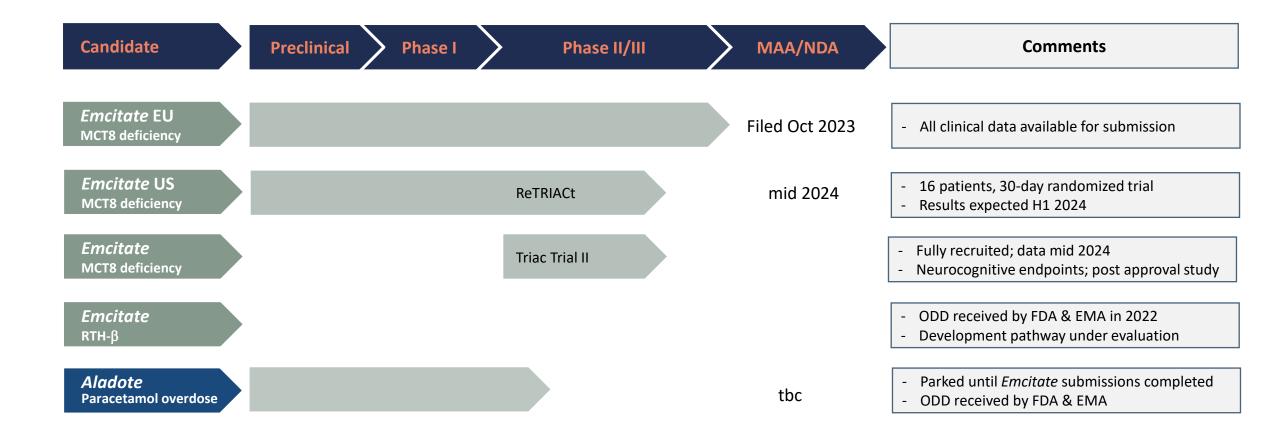


Source: (1) Orphan drug development: an economically viable strategy for biopharma R&D, Meekings, Williams & Arrowsmith, 2012; (2) EvaluatePharma; (3) Estimation of clinical trial success rates and related Corporate presentation | Egetis Therapeutics | 2023-10-22 8 parameters, C. Wong, K. Siah, A. Lo, Biostatistics, 2019; (4) BioMed Central; (5) EvaluatePharma Orphan Drug Report 2013 Note: Orphan Drugs: Populations of less than 5/10,000 inhabitants in the EU or <200,000 inhabitants in the US

## **Pipeline overview**

#### Planned Emcitate EU filing in 2023 and US filing in 2024





## Two highly promising orphan drug candidates

#### Emcitate<sup>®</sup> – 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 Designation 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 filed in October 2023, based on existing clinical data
- NDA in mid 2024 under fast-track designation, after conducting a 30 days placebo-controlled study (ReTRIACt) 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
- Over 180 patients are being treated with *Emcitate* on a named patient basis – Expanded Access Program implemented as requested by the FDA

## Aladote<sup>®</sup> – 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
- No competing products in clinical development
- In-house development parked until *Emcitate* submissions have been completed

## **Commercialisation of** *Emcitate* & *Aladote*

Commercial infrastructure build up initiated

#### Strong success factors...



... for sustainable, profitable & lean commercialisation

- Building inhouse commercial capabilities for launch of Emcitate<sup>®</sup> and Aladote<sup>®</sup> 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**

## **2.** Overview of MCT8 deficiency



## MCT8 deficiency results in dysfunctional thyroid hormone trafficking

MCT8 deficiency has two co-manifestations

#### New Research Sheds Light on Thyroid Hormone Transport

- In 2002 the first thyroid hormone transporter (MCT8) was identified
  - Previously, thyroid hormone was incorrectly believed to be able to passively cross cellular membranes, without the need for a specific transporter
- Several additional transporters have been identified with preferential distribution across different tissue types and cells

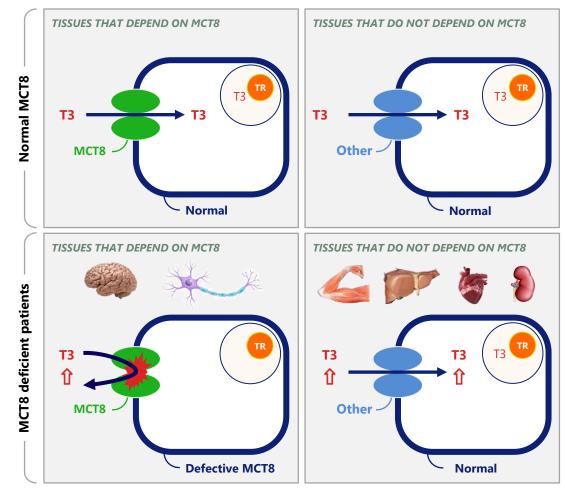
#### MCT8 Plays a Key Role in Neurocognitive Development

- MCT8 is the only thyroid hormone transporter in the cells of the blood brain barrier and neurons
  - The human brain is dependent on thyroid hormone for its normal development. Absence of thyroid hormone in the CNS leads to disruption of neurocognitive development and results in severe neurocognitive and motor impairment

#### And Causes Many Additional Symptoms

- Disrupted thyroid hormone homeostasis leads to an increase of peripheral serum T3 levels
- Tissues dependent on transport other than MCT8 suffer from too high levels of thyroid hormone:
  - Increased heart frequency, blood pressure and arrhythmias
  - Severe wasting and weight loss
  - Impaired liver / kidney function
  - Altered bone metabolism and blood lipids
  - Increased risk of sudden and premature death

### MCT8 deficiency results in simultaneous too high and too low thyroid hormone levels – causing system wide issues



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

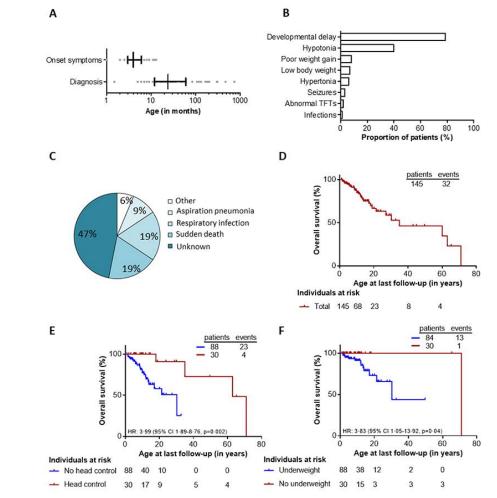
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What is MCT8 deficiency?	What does it mean?	What are the challenges?	How do you manage the disease?	Quick facts from natural history <sup>2</sup>	
<ul> <li>Genetic X-linked disorder</li> <li>Impaired thyroid hormone trafficking across cellular membranes</li> <li>MCT8 is a key thyroid hormone transporter in the body</li> <li>Prevalence 1:70,000 males</li> </ul>	<ul> <li>Non-functional MCT8 protein: T3 cannot cross blood-brain- barrier</li> <li>Low amounts of thyroid hormone in the brain &amp; CNS</li> <li>Disrupted feedback loop results in a compensatory increase in circulating thyroid hormone</li> </ul>	<ul> <li>Patients appear normal at birth</li> <li>Initial symptoms within the first months of life</li> <li>Severe intellectual disability</li> <li>Most patients never able to sit or walk; limited ability to communicate</li> <li>Life-long morbidity: agitation, CV symptoms, wasting &amp; impaired life expectancy</li> </ul>	<ul> <li>No available therapy</li> <li>Easy diagnosis once considered with readily available, low-cost lab-test</li> <li>Large proportion of patients remain undiagnosed with significant delay to diagnosis</li> </ul>	Median onset of symptoms:4 monthsMedian age of diagnosis:24 monthsPatients surviving into adulthood:70%Severe intellectual disability:100%Ability to sit independently:8%Hypotonia, hypertonia90%	
Fatients with MCTB Deficiency <sup>1</sup>	<ul> <li>Simultaneous too high &amp; too low thyroid hormone in different tissues</li> </ul>	<ul> <li>Heavily dependent on caregivers resulting in very high disease burden</li> </ul>	<ul> <li>Significant unmet medical need: humanitarian, health economic, societal</li> </ul>	Severe underweight:75%Cardiac arrythmias (PAC):76%Median life expectancy:35 yearsLife long 24-hour care:100%	

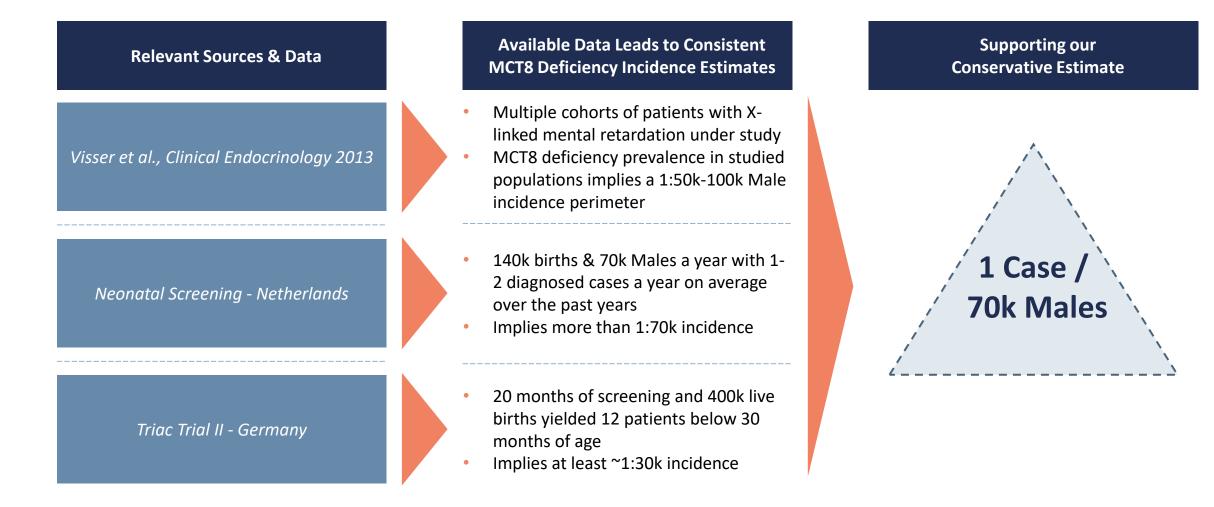
## Natural history study revealed poor survival with a high prevalence of treatable underlying risk factors

An international, retrospective, multicentre cohort study from 2014-2020 in 151 patients

- 151 patients were enrolled with 73 different MCT8 (SLC16A2) mutations
- Median age at diagnosis was 24.0 months
- 21% patients died; the main causes of mortality were pulmonary infection (six patients or 19%) and sudden death (six patients or 19%)
- Median OS was 35.0 years (95% CI 8.3-61.7)
- Individuals who did not attain head control by age 1.5 years had an increased risk of death compared with patients who did attain head control (p=0.0041)
- Patients who were underweight during age 1-3 years had an increased risk for death (p=0.021)
- The few motor & cognitive abilities of patients did not improve with age, as evidenced by the absence of significant correlations between biological age and scores on the Gross Motor Function Measure-88 and Bayley Scales of Infant Development III
- Tri-iodothyronine concentrations were above the age-specific upper limit in 96 (95%) of 101 patients and free thyroxine concentrations were below the age-specific lower limit in 94 (89%) of 106 patients. 59 (71%) of 83 patients were underweight. 25 (53%) of 47 patients had elevated systolic blood pressure above the 90th percentile, 34 (76%) of 45 patients had premature atrial contractions, and 20 (31%) of 64 had resting tachycardia
- The most consistent MRI finding was a global delay in myelination, which occurred in 13 (100%) of 13 patients



# Multiple sources lead to consistent MCT8 deficiency incidence estimates



## **2.** *Clinical experience with Emcitate*

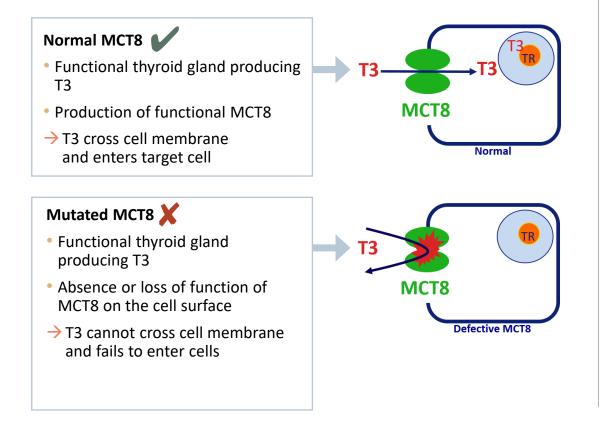


## **Orphan drug candidate**

with clear scientific and mechanistic rationale and established safety profile

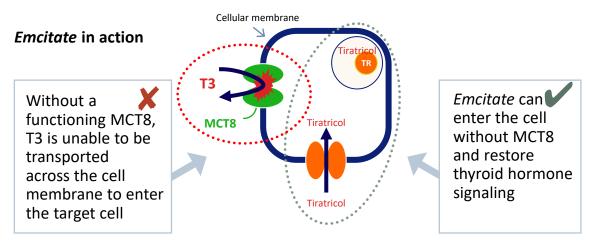
#### Difference normal MCT8 and deficiency of MCT8

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



#### **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)

#### Clinical

Regulatory

- Triac Trial II, early intervention trial in young subjects to establish the effect on neurocognitive development, previously seen in Triac Trial I. Fully recruited Q2 2022, 22 patients. Results expected mid 2024
- Orphan drug designation in EU & US, US Rare Pediatric Disease Designation eligible for Priority Review Voucher
- Fast track designation granted by FDA
- MAA submitted to the EMA in October 2023, based on existing clinical data
- US NDA submission planned mid 2024: A 30-day, placebo-controlled study in 16 patients is being conducted to verify the results on T3 levels seen in previous clinical trials and publications
- Incidence 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
- Over 180 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 10 years in EU (ODD), 7 years in US (ODD)

## **Overview of completed Phase IIb – Triac Trial I**

Evaluate the efficacy and safety of oral administration

• An international, single-arm, open-label, Phase II trial

ClinicalTrials.gov identifier: NCT02060474

of tiratricol in male patients with MCT8 deficiency of all ages

• Highly significant primary outcome - Change in T3 serum concentrations

Change in other thyroid hormone function tests, thyrotoxic symptoms

Significant and clinically relevant effects observed across secondary

Primary objective and results

Secondary objective and results

Description

# of patients

46 MCT8 patients in 9 countries

Safe and tolerable

and markers

endpoints

Results published in The Lancet 2019

Timetable

Initiated in 2014 (first patient in)

Completed in 2018

THE LANCET

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

Sedan Groeneveg, Robin P Peters, Cala Moran, Athanasia Stoupa, Françoise Auriol, Davide Tanduti, Alice Dica, Laure Paone, Klar a Razenkova, Jana Midkova, Adrivan der Walt, Ierneus F.M. de Coa, Anne McCowan, Geda Lyons, Fernke K.Annen, Diana Barca, Ingidi M. van Bayrum, Manieke W. van der Konoglu grang Inanzen. Martierin Manhander, Fabilinde J. Junima, San Navak, G. crastian Aden IV, M. Gradz Zillikens, Franke Visser, Paul Vrijmoeth, Marie Clairey d Arliv, Niccle IWolf, Angeligue Zandstra, Gustam Anthelyaoniar, Yogen Singh, Yalanda B de Röjke, Marco Media, Enrico S Berlini, Sylvia Depoort in Jan Leit, Marco Cappa, Linda Derkeiletier', Heiko Kude, Dana Ciniu, Federica Zibordi, Ibabele Cliver Pett, Michel Yolak, Urahan Chatterje, Er Theol Yinser', W.Edward Visar

#### Summary

Background Deficiency of the thyroid hormone transporter monocarboxylate transporter 8 (MCT8) causes severe interletentabaen intellectual and motor disability and high serum tri-iodothyronine (T<sub>4</sub>) concentrations (Allan-Herndon-Dudly en syndrome). This chronic thyrotoxicosis a feast to progressive deterioration in bodyweight, tachycardia, and musca wasting, predisposing affected individuals to substantial morbidity and mortality. Treatment that safely alleviates peripheral hyrotoxicosis and reverses cerebral hypothyroidsmis is not yet available. We aimed to investigate the effectivent of treatment with the T<sub>4</sub> analogue Triac (3.3',5-tri-iododhyroacetic 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 "toMandance.etersAugu effectiveness and safety of oral Triac in male paediatric and adult patients with MCT8 deficiency in eight countries in 2018, ProDoMatherMedia Europe and one site in South Africa. Triac was administered in a predefined escalating dose schedule-after the initial October 2018 and Prof T LVIsse died in March, 2018 dose of once-daily 350 µg Triac, the daily dose was increased progressively in 350 µg increments, with the goal of Academic Center for Thyrolo attaining serum total T<sub>s</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 prespectified primary endpoints was the change in serum T, concentrations from baseline to month 12. The co-primary endpoints MM/adc/M0, ProfT/VaserPh were changes in concentrations of serum thyroid stimulating hormone (TSH), free and total thyroxine (T.), and total WEVEDER MO, Sophia Children's Hospital Division reverse T, from baseline to month 12. These analyses were done in patients who received at least one dose of Triac and of Paedlatric Cardiology had at least one post-baseline evaluation of serum throid function. This trial is registered with Clinical Trials.gov, number (Myan Beynum MD) NCT02060474. Sophia Children's Hospital Department of Par

Neurology (FFM de Coo MI) Findings Between Oct 15, 2014, and June 1, 2017, we screened 50 patients, all of whom were eligible. Of these patients, four (8%) patients decided not to participate because of travel commitments. 46 (92%) patients were therefore enrolled MM van der Knopp 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 deWEMD), Department least one follow-up measurement of thy roid function and thus were included in the analyses of the primary endpoints. of Castology and Internate Care Medicine (C A den UI MD) Of these 45 patients, five did not complete the trial (two patients withdrew [travel burden, severe pre-existing Department of Clinical comorbidity], one was lost to follow-up, one developed of Graves disease, and one died of sepsis). Patients required a Committy mean dose of 38.3 µg/kg of bodyweight (range 6 4-84-3) to attain T, concentrations within the target range. Serum T, (Pte(YEGO RUR PED) concentration decreased from 4.97 nmol/L (SD 1.55) at baseline to 1.82 nmol/L (0.69) at month 12 (mean decrease Meticine and Department of In 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) 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 Medica Centre, Bottestam, 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 Medical Research Council 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). Institute of Metabolic Science Seven treatment-related adverse events (transiently increased perspiration or irritability) occurred in six (13%) patients. University of Cambridge, 26 serious adverse events that were considered unrelated to treatment occurred in 18 (39%) patients (mostly hospital Cameroge UK (C MIGANAI), admissions because of infections). One patient died from pulmonary sepsis leading to multi-organ failure, which was A McGowanMQ Giyon RCN. K Chatterice FRCPi- Paediatric unrelated to Triac treatment Endocrinology, Diabetology and Gynaecology Departmen Interpretation Key features of peripheral thyrotoxicosis were alleviated in paediatric and adult patients with MCT8 Networkshy deficiency who were treated with Triac. Triac seems a reasonable treatment strategy to ameliorate the consequences of Hospital imagine institute. Paris France (A Stoupa M.D. untreated peripheral thyrotoxicosis in patients with MCT8 deficiency. Prof M Folds M.D. Department of Paedlatric Endocrinology

Funding Dutch Scientific Organization, Sherman Foundation, NeMO Foundation, Wellcome Trust, UK National and Genera, Children Institute for Health Research Cambridge Biomedical Centre, Toulouse University Hospital, and Una Vita Rara ONLUS. Hospita Tousses Invest-Hospita Tousses Invest-

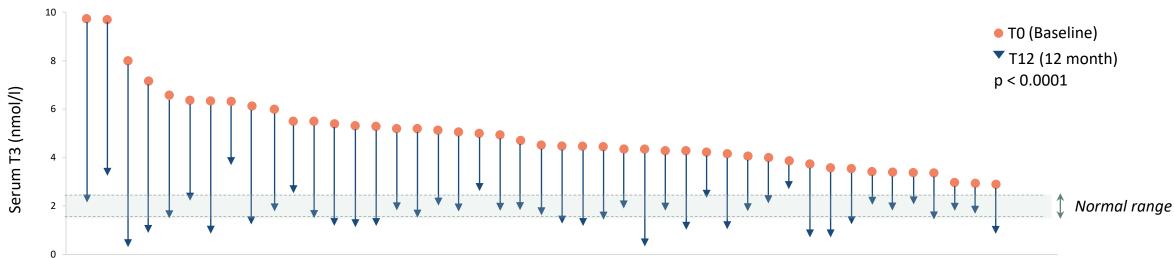
www.thelancet.com/diabetes-endocrinology\_Published online July 31, 2019\_http://dx.doi.org/10.1016/52213-8587(19)30155-X

Articles

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## **Consistent, clinically relevant and highly significant results**

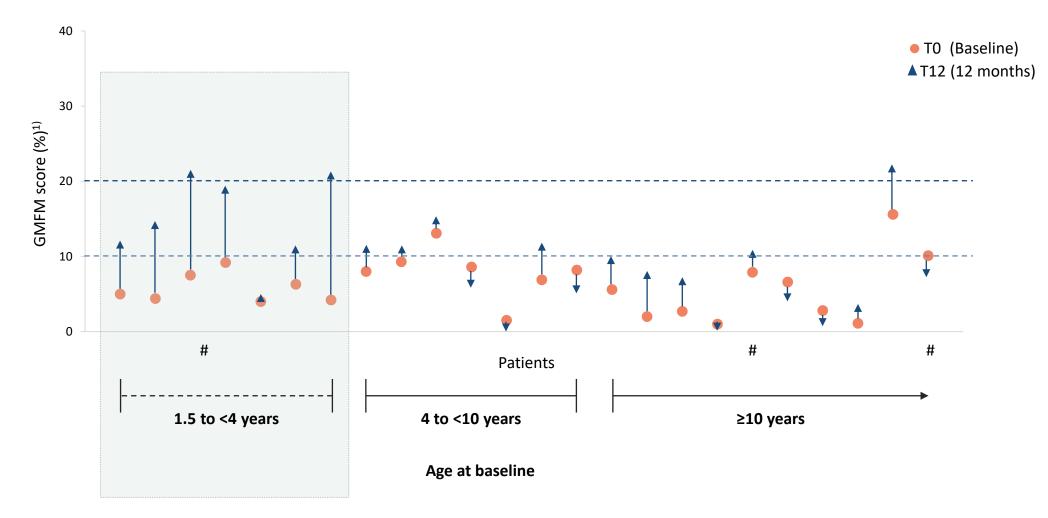
*Triac Trial I: Reached target level serum T3 & improvements in clinically relevant outcome measures* 



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

# **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





# Long-term efficacy and safety of Emcitate<sup>®</sup> 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 do

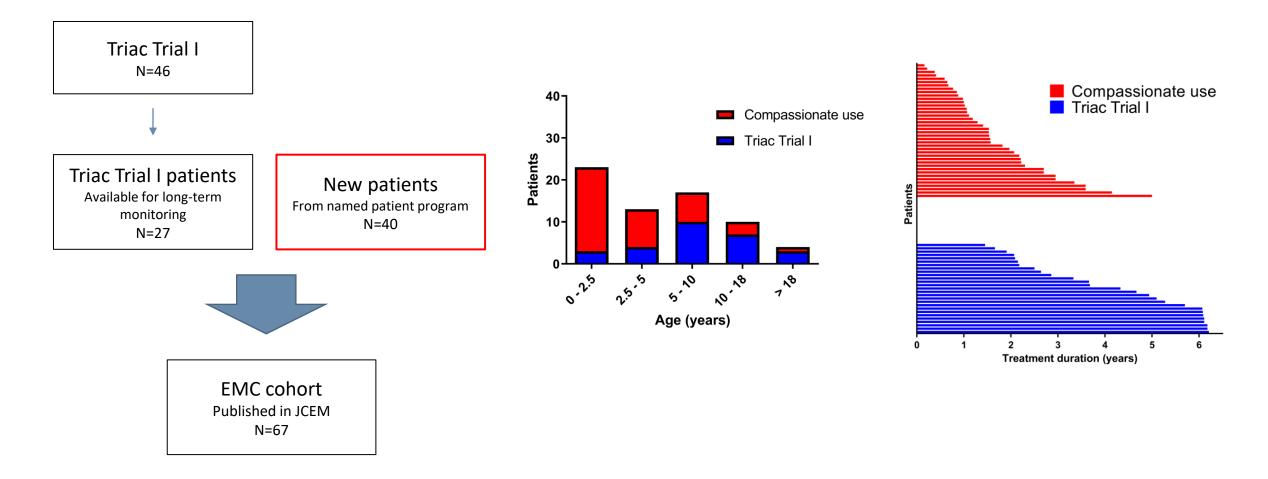
Ferdy S van Geest, Stefan Groeneweg, Erica L T van den Akker, Iuliu Bacos, Diana Barca, Sjoerd A A van den Berg, Enrico Bertini, Doris Brunner, Nicola Brunetti-Pierri, Marco Cappa ... Show more Author Notes



- 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

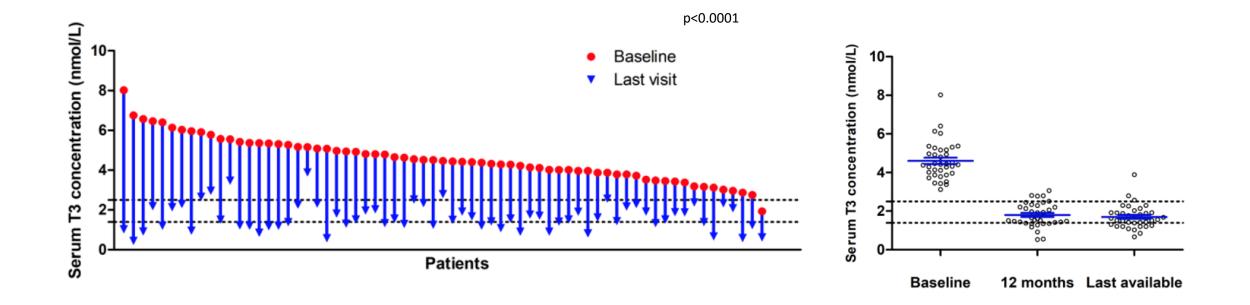
## New patient cohort of equal size to the Triac Trial I

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

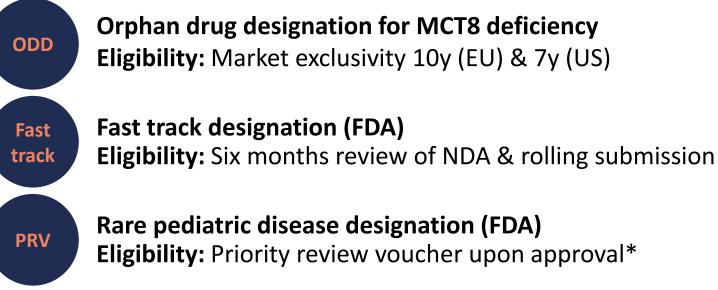
- Data confirm the positive results from previous study, Triac Trial I
- Normalization of serum T3 corresponds to improvement in thyroid hormone status in end target tissues
- Beneficial effects are maintained or continue to improve over time, up to six years
- Consistent efficacy seen across key clinical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

	Baseline	Last visit	Mean change (95%	P value
	mean (SD)	mean (SD)	CI)	
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
∆ Weight-for-age – predicted	0.07 (1.83)	0.79 (1.92)	0.72 (0.36 to 1.09)	0.0002
weight-for-age Z score (n=55)				
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
∆ Height-for-age – predicted	-0.44 (1.38)	0.14 (1.41)	0.58 (0.12 to 1.05)	0.0139
height-for-age Z score (n=43)				
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)	< 0.0001
Free T4 (pmol/L; n=64)	9.5 (2.3)	3.4 (1.6)	-6.1 (-6.7 to -5.4)	< 0.0001
T4 (nmol/L; n=63)	54.2 (11.8)	18.1 (9.8)	-36.1 (-39.5 to -32.7)	< 0.0001
Peripheral markers				
Sex hormone-binding globulin	245 (99)	209 (92)	-36 (-57 to -16)	0.0008
(nmol/L; n=48)				
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-transform				
transformed means [SDs] and mean changes [95% CIs] are presented for the sake of interpretability).				

## **2.** Emcitate<sup>®</sup> - regulatory pathway to submissions in EU and US



## **Regulatory features of** *Emcitate* **for MCT8 deficiency**



MAA NDA

MAA: Submitted in October '23 NDA: Small confirmatory study agreed with FDA (submission mid '24)



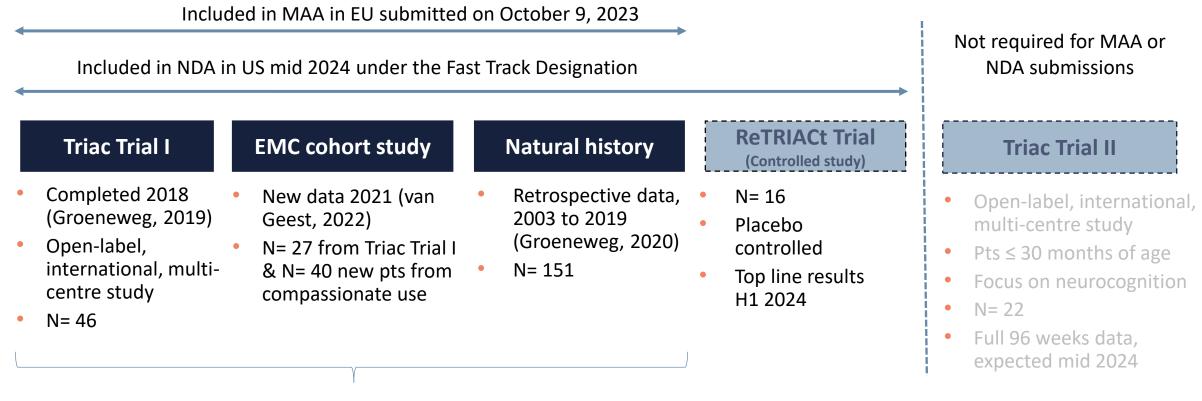
Orphan drug designation for RTH-beta Eligibility: Market exclusivity for distinct indication

\*The voucher may be sold to another sponsor (2021-23 range: ~\$100m-\$110m)



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

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



## Egetis submitted MAA for Emcitate<sup>®</sup> to EMA on October 9, 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

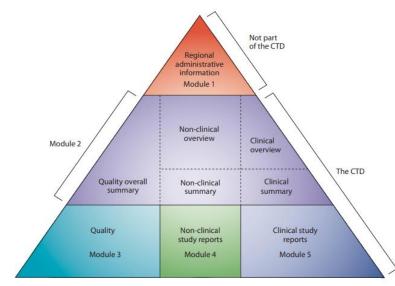
#### Egetis intends to submit a marketing authorisation application for Emcitate® to the European Medicines Agency based on existing clinical data

- 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



CMC: Chemistry, manufacturing and controls

## Treatment effects on T3 levels in MCT8-deficiency could provide a basis for marketing approval in the US – NDA targeted in mid 2024

- 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 from treatment naïve patients and 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 2024 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).

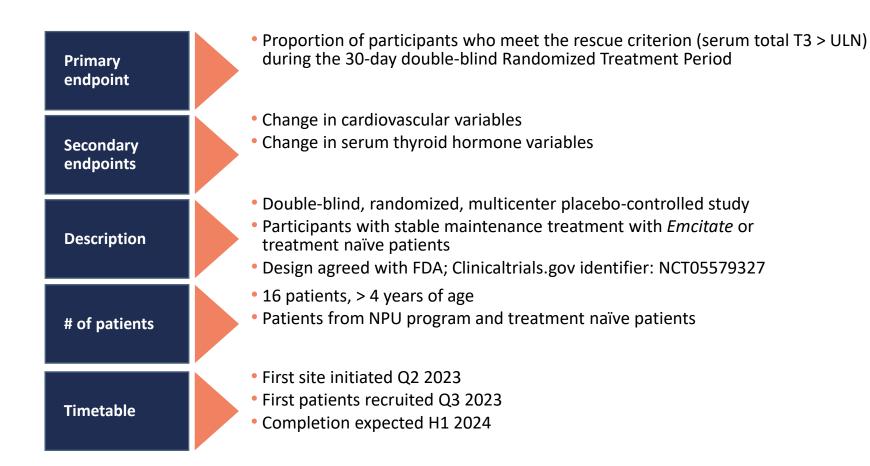
#### Egetis concludes that demonstrating treatment effects on T3 levels in MCT8-deficiency could provide a basis for marketing approval for Emcitate® in the US

- 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**

Pivotal randomized placebo-controlled trial for NDA submission

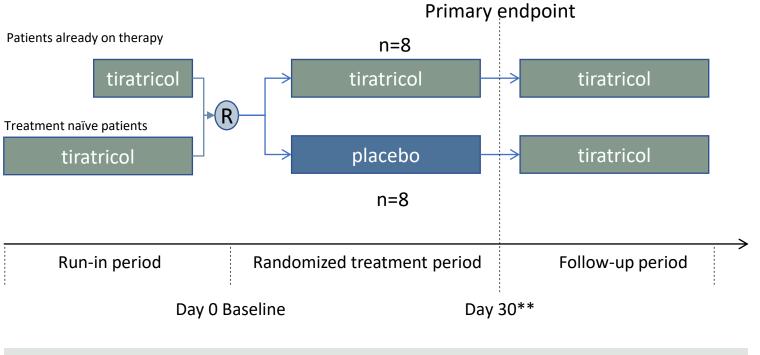




## ReTRIACt – A randomized placebo-controlled withdrawal study designed to show an effect on the proportion of patients needing rescue treatment

Verifying previous results in single arm Triac Trial I and a real-world cohort study

- A 30-day, placebo-controlled withdrawal study in 16 treated patients, to verify the results on T3 levels seen in previous clinical trial and publications - but in a randomized controlled setting
- Design agreed with FDA (no change)
- The study allows for inclusion of both patients that are already on therapy, as well as patients that are previously treatment naïve
- Treatment naïve patients require a longer run-in period to stabilize T3 levels around normal range before randomization
- Thus, a higher proportion of treatment naïve patients will lead to an extended study duration.

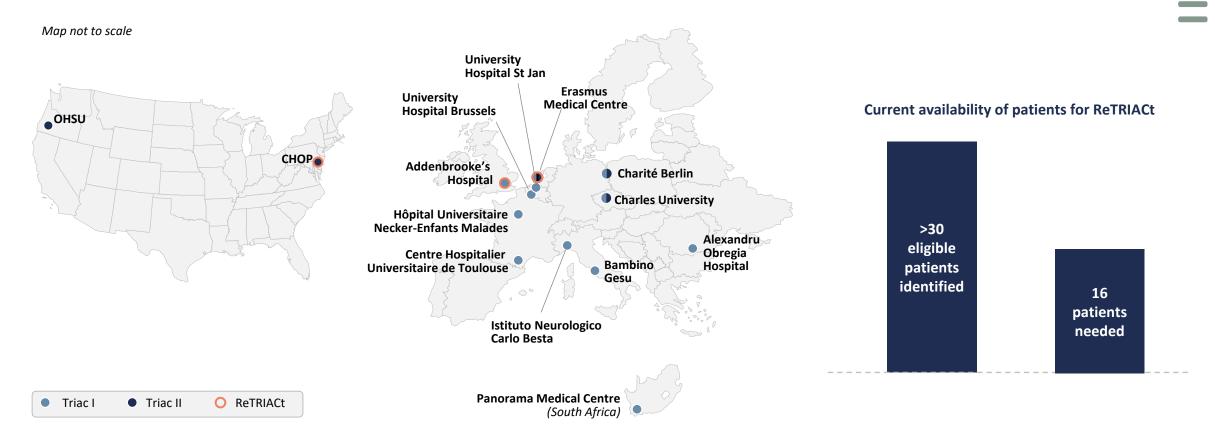


Primary endpoint: Proportion of participants who meet the rescue criterion (T3>ULN\*) during the 30-day double-blind randomized treatment period

\* 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

## Availability of patients at study sites in ReTRIACt



#### All 3 sites in ReTRIACt participated in prior Triac Trial I and/or ongoing Triac Trial II

Triac II study sites include: Children's Hospital of Philadelphia (Philadelphia, Pennsylvania), Charité Berlin (Berlin, Germany), Charles University (Prague, Czech Republic), Erasmus Medical Centre (Rotterdam, Netherlands) and OHSU (Portland, Oregon).

ReTRIACt study sites include: Addenbrooke's Hospital (Cambridge, UK), Children's Hospital of Philadelphia (Philadelphia, Pennsylvania) and Erasmus Medical Centre (Rotterdam, Netherlands).

Triac I study sites include: Addenbrooke's Hospital (Cambridge, UK), Alexandru Obregia Hospital (Bucharest, Romania), Bambino Gesu (Rome, Italy), Centre Hospitalier Universitaire de Toulouse, France), Charité Berlin (Berlin, Germany), Charles University (Prague, Czech Republic), Erasmus Medical Centre (Rotterdam, Netherlands), Hôpital Universitaire Necker-Enfants Malades (Paris, France), Istituto Neurologico Carlo Besta (Milan, Italy), Panorama Medical Centre (Panorama, South Africa), University Hospital Brussels (Brussels, Belgium) and University Hospital St Jan (Brugge, Belgium).

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

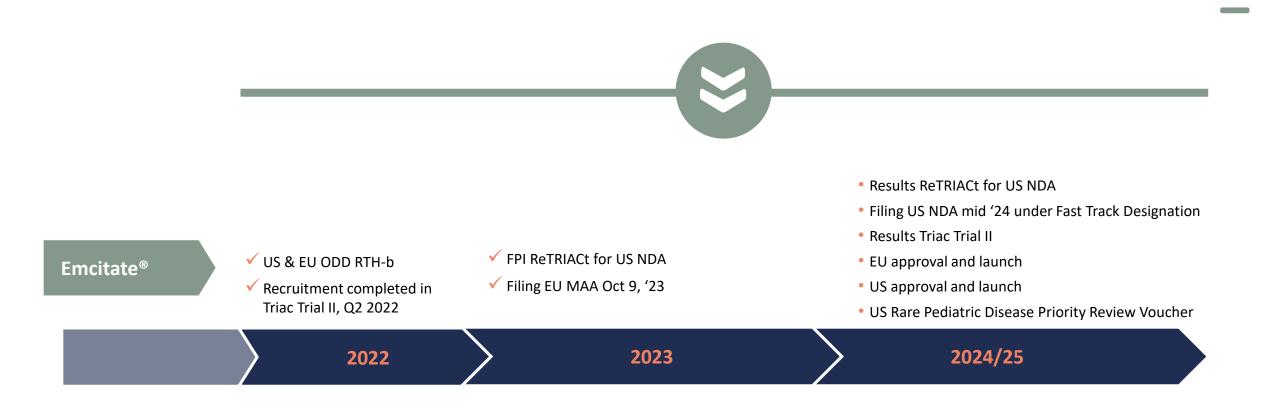
Market approval not dependent on Triac Trial II data

Primary Objective	<ul> <li>Confirm findings from Triac Trial I in youngest age group</li> <li>Improvement in neurocognitive development as measured by GMFM<sup>1</sup> and BSID-III<sup>2</sup> compared to natural history controls</li> </ul>
Secondary Objective	<ul> <li>Achievement of motor milestones (e.g. hold head, sit independently)</li> <li>Normalization of thyroid hormone function tests and markers of thyrotoxicosis</li> </ul>
Description	<ul> <li>Open label, multi-centre trial in very young children with MCT8 deficiency</li> <li>International trial with 10 centres in CZ, DE, IT, UK, FR, NL, US</li> <li>Design discussed and anchored with EMA and FDA</li> <li>ClinicalTrials.gov identifier: NCT02396459</li> </ul>
# of Patients	• 22 children, 0-30 months of age
Timetable	<ul> <li>First Patient First Visit in Dec 2020, recruitment target met in April 2022</li> <li>Results from 96 week read out expected mid 2024 and data is expected to be submitted post-approval to regulatory authorities shortly thereafter and available for HTA interactions</li> <li>Market approval not dependent on Triac Trial II data</li> </ul>



1. Gross motor function measure.

# **Upcoming pipeline milestones**



# FDA granted Rare Pediatric Disease designation to Emcitate®

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

### **Overview of 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 Priority Review Voucher (PRV) upon approval.
- PRV program prolonged until 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 2021-23 PRVs have been sold 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		
Sarepta	Undisclosed	\$103M	2023		

# **2.** *Emcitate® - Commercial opportunity*



# Emcitate<sup>®</sup>- alleviating patient and societal burden

Aiming to provide value for both patients and society

MCT8 deficiency is a detrimental condition with significant unmet medical need and no approved therapy

<ul> <li>Median life-expectance</li> </ul>	of MCT8 patients	s 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

**Patients** 

- 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 approved Expanded Access Program -Simplifies Process for Accessing *Emcitate*
- *Emcitate* is being supplied on a named patient basis, following individual approval from the national medicines agencies, to
  - over 180 patients
  - in over 25 countries



### 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 in-house commercial capabilities**

- Preparing for **2024-25 launches** in Europe and US, ٠ respectively
- Commercial organization of 40-50 employees at time of ٠ launch
- Aiming for rapid access to Emcitate for all **MCT8 deficiency** ٠ patients
- Plan to commercialize in rest of world through partners ٠

# 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



John Walsh, US VP, Medical Affairs North America





Nadia Georges, CH SANOFI Global Head, Market Access & Pricing



Peter Verwaijen, NL Global Head Marketing & Brand Strategy





Nigel Nicholls, UK Global Patient Advocacy Director & GM for UK & Northern Europe



Kate Sulham, US VP, Market Access & Pricing

|--|



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



Sylvain Forget, FR GM Southern Europe (FR, ES, PT, IT, GR)





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

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



# **Disease awareness initiatives are bearing fruit**

- Awareness of MCT8 deficiency remains low also among specialists, with a high proportion of patients living without correct diagnosis
- Increasing disease awareness and facilitating diagnostic testing are key strategic imperatives for 2023
- Over 40 new patients identified in the US only this year
- Emcitate is presently being supplied on a named patient basis, following individual approval from the national regulatory agencies, to
  - over 180 patients
  - in over 25 countries
- An Expanded Access Program has been approved in the US, allowing access to Emcitate for patients that do not meet the inclusion criteria in ongoing clinical trials in the US

DISEASE AWARENESS AND EDUCATION

COLLABORATION WITH PAGs & KOLs

EXHIBIT AT SCIENTIFIC/MEDICAL CONFERENCES



Increasing number of previously undiagnosed and treatment naïve patients are being identified

### 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

### The pricing & reimbursement work has started

1. VALUE IDENTIFICATION, POSITIONING & EVIDENCE GENERATION • *Emcitate* fulfills these criteria, no other drugs available or being developed for MCT8 deficiency





Severe impact on QoL, median survival 35y

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

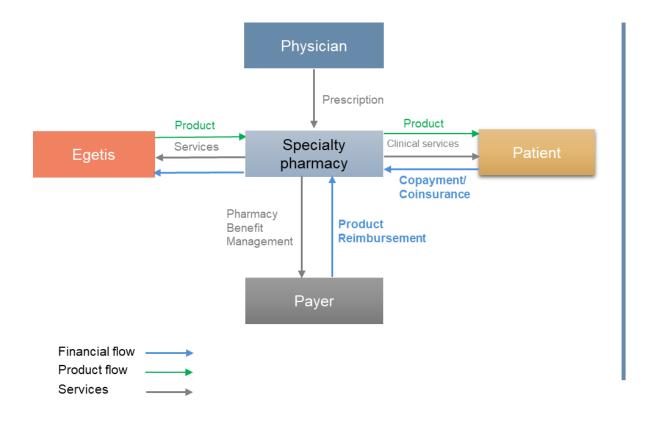
# Developing a compelling *Emcitate* clinical and economic value proposition to secure reimbursement & access

*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



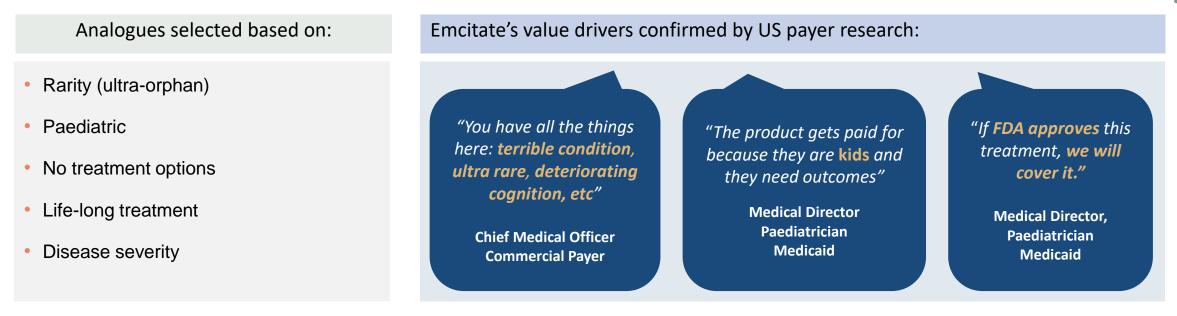
## **Exclusive Distribution Model Through Speciality Pharmacy** is Preferred option for Rare Disease



- Insurance resolution and contracting
- Prior authorization support
- Appeals
- Dedicated case managers
- Improves patient experience and outcomes
- Patient Assistance and Copay Support

# **US Pricing & Reimbursement**

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



### **US Payer Analogues**

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

# 3.

### Paracetamol/Acetaminophen overdose and clinical experience with Aladote



# Paracetamol/acetaminophen poisoning

- no adequate treatment for increased-risk patients

What is paracetamol/ acetaminophen poisoning?

How many does it affect?

Why is current treatment inadequate?

A new standard of care is needed

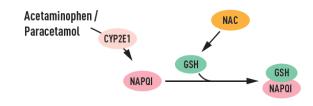
- Minimum toxic dose of paracetamol/acetaminophen in adults is only 7.5g
- Risk factors include malnutrition, alcoholism and consumption of other medications
- Paracetamol/acetaminophen poisoning can lead to acute liver failure, liver transplant or death
- **19 billion** units of paracetamol /acetaminophen 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
- 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
- Aladote<sup>®</sup> 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

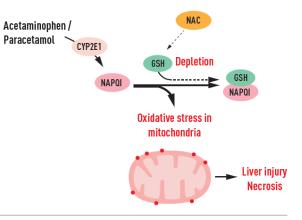
Early presenters (<8h) NAC treatment effective against liver injury

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

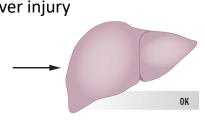


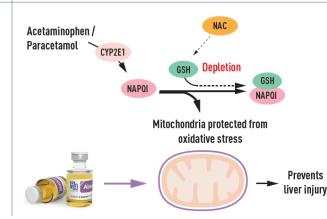
Late presenters (>8h) are at increased-risk for liver injury NAC treatment + Aladote<sup>®</sup> to prevent liver injury

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<sup>®</sup>



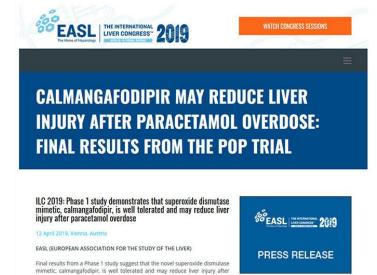


 Aladote<sup>®</sup> (calmangafodipir) prevents ROS and RNS formation, restores mitochondrial energy production and prevents liver injury

# **Overview of completed Phase Ib/IIa**

	<ul> <li>Met primary endpoint of safety tolerability in the combination of Aladote<sup>®</sup> and NAC</li> </ul>	Elisable
Primary objective and	• 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	EBioMedicia ELSEVIER journal homepage: www.ebi
results	<ul> <li>Presented at, American College of Medical Toxicology (ACMT) and Society of Toxicology (SOT), as novel emerging treatments for acetaminophen/ paracetamol toxicity in 2021</li> </ul>	Principal results of a randomised open tolerability study with calmangafodipir regimen of N-acetylcysteine for paracet Emma E. Morrison <sup>a</sup> , Katherine Oatey <sup>b</sup> , Bernadette Polly Black <sup>c</sup> , Wilna Oosthuyzen <sup>a</sup> , Robert J. Lee <sup>b</sup> , C On behalf of the POP Trial Investigators <sup>1</sup>
Secondary	• Measurements of Alanine transaminase (ALT), international normalised ratio	Off Defield Of THE FOF THAI INVESTIGATO'S     * Plannakay, Draspacia and Taiokologi Unit, Centre for Cardiovascular Science, U     * Editorigh Cenical Trials Unit, UK     * Emergenty Medicine Research Graye, Royal Informacy of Editoburgh, UK     * PeoPharma AR, Stockholm, Sweden
objectives and results	(INR), keratin-18, caspase-cleaved keratin-18 (ccK18) and microRNA-122 (mir122) and glutamate dehydrogenase (GLDH) indicates that Aladote <sup>®</sup> reduce liver injury	EASL De Rower of Neparatory
Description	<ul> <li>An open label, rising-dose, randomized study exploring safety and tolerability of Aladote<sup>®</sup> co-treatment with NAC</li> </ul>	
Description	ClinicalTrials.gov identifier: NCT03177395	CALMANGAFODIPIR INJURY AFTER PARA
	(N, 24)	FINAL RESULTS FROM
# of patients	<ul> <li>Single ascending dose study in 3 dosing cohorts of 8 patients (N=24) as add-on to NAC regime</li> </ul>	
		ILC 2019: Phase 1 study demonstrates that sup mimetic, calmangafodipir, is well tolerated and injury after paracetamol overdose
	<ul> <li>Initiated in June 2017 (first nations in)</li> </ul>	12 April 2019, Vienna, Austria
Timetable	<ul> <li>Initiated in June 2017 (first patient in)</li> <li>Completed in September 2018</li> </ul>	Final results from a Phase 1 study suggest that the novel mimetic, calmangafodipir, is well tolerated and may re





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

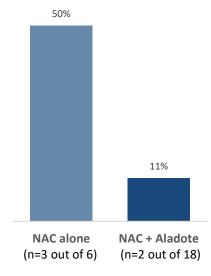
Indicates that Aladote may reduce liver injury

### 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%)

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%)	

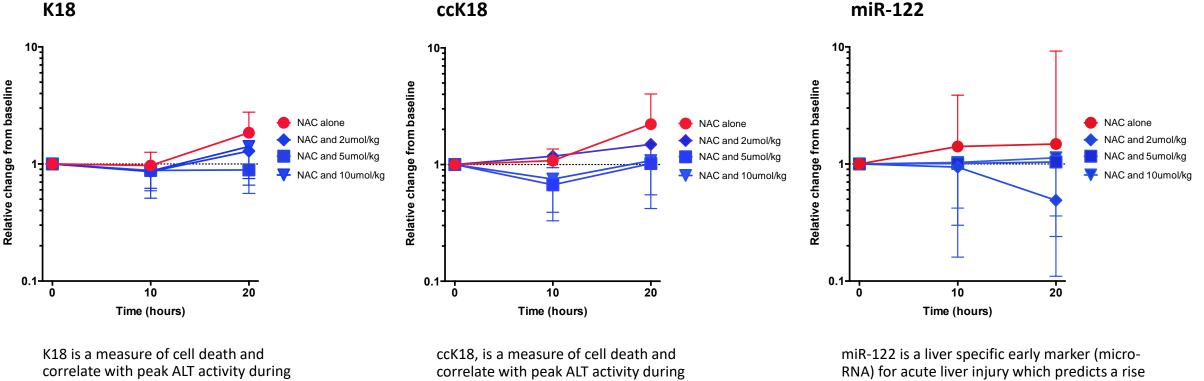
% of patients needing additional NAC infusions after planned 12h NAC infusion



- Met primary endpoint of safety tolerability in the combination of Aladote<sup>®</sup> and NAC
- No AE or SAE probably or definitely related to Aladote<sup>®</sup>
- ALT >100 U/L is the indication to stay in hospital

Note: (1) Alanine transaminase (ALT) is a transaminase enzyme found in plasma and in various body tissues especially the liver's hepatocytes. Serum ALT is commonly measured clinically as part of a diagnostic evaluation of hepatocellular injury, to determine liver health

# Aladote<sup>®</sup> demonstrates consistent results of reduced liver injury as measured by exploratory biomarkers



the hospital stay

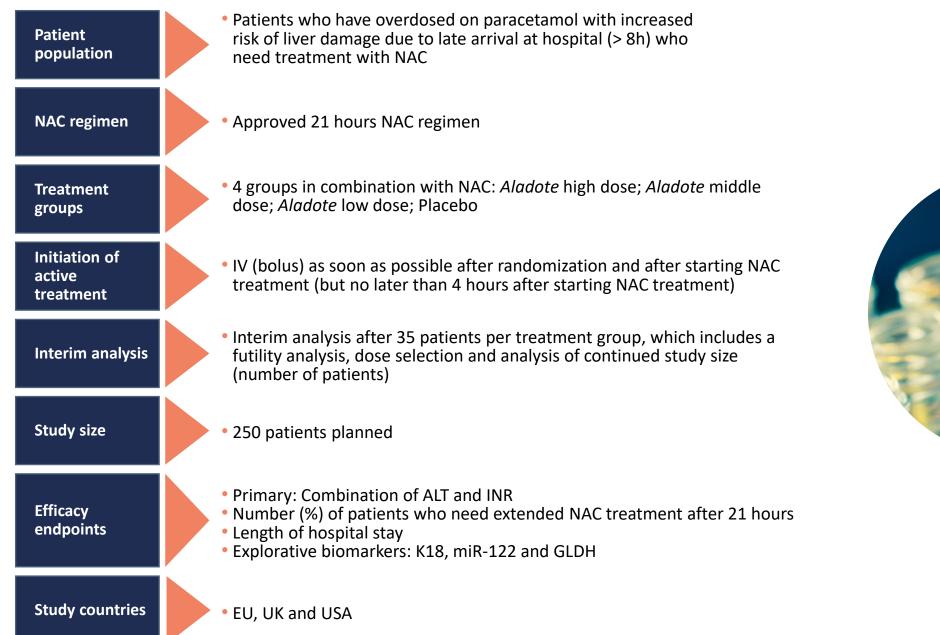
the hospital stay

in ALT activity following paracetamol overdose

# **3.** Aladote<sup>®</sup> - Regulatory pathway to submissions in EU and US\*

### \* In-house development of *Aladote* has been parked until *Emcitate* submissions have been completed

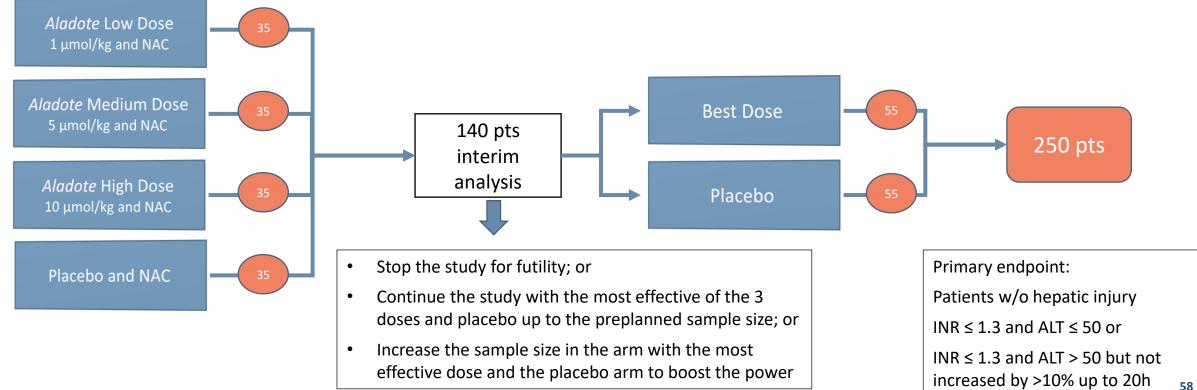
# ALBATROSS: Phase IIb/III study for US/EU regulatory submission



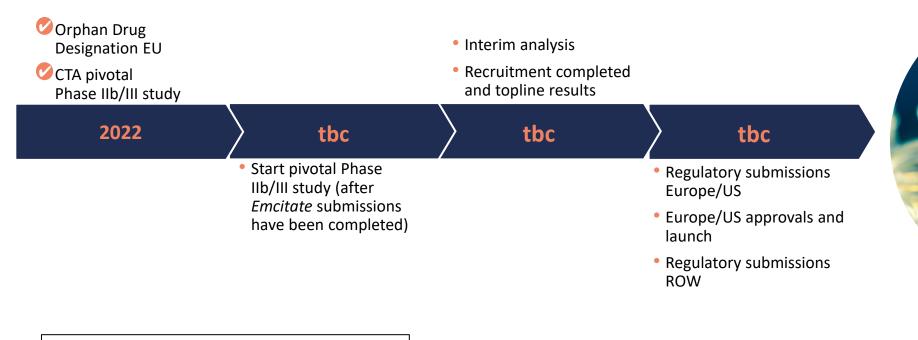
# ALBATROSS: Aladote Phase IIb/III study design

## 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 in US and EU Composition of matter patent expires in 2032 Method of use patent until 2037

# **3.** Aladote<sup>®</sup> - Commercial opportunity



# 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

Society

- 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
- In the US the annual cost has been estimated at > \$1bn to treat patients with POD<sup>1</sup>
- 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

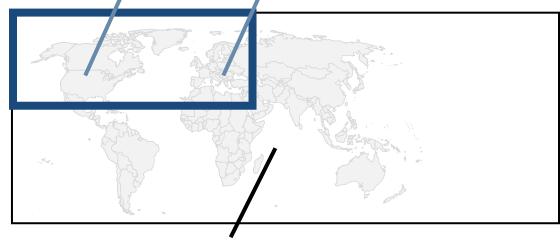


### Addressing life-threatening condition

- 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

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

National emergency hospital stocking guidelines - opportunity for rapid market penetration

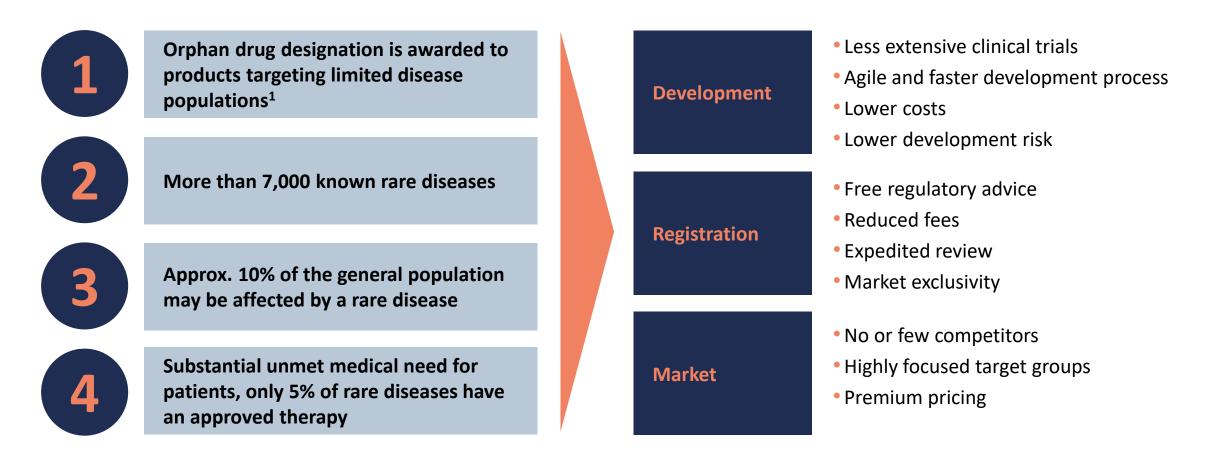
- Various antidotes, e.g. vs. drug overdosing, metal poisoning, snake bites and reversal of anticoagulant treatment effects
- Limit morbidity/mortality when used within appropriate time
- National recommendations for stocking of antidotes at hospitals providing emergency care
  - For getting payer/formulary 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
    - 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

# **4.** The attractiveness of the orphan drug segment



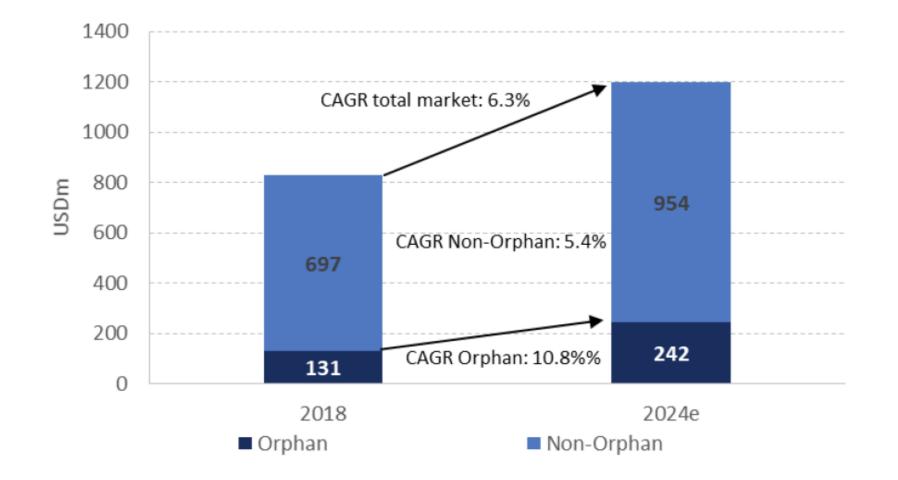
# **Orphan drug segment – a highly attractive opportunity**



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

# EGTX – a de-risked biotech with substantial unlocked potential

- Late stage biotech "under the radar", developing the first therapy for a devastating genetic disorder
  - Strong team with established track record in the orphan drug space, including SOBI, Alexion, Biomarin, Biogen, Vertex, Sarepta, Shire and Wilson Therapeutics
- Strong and consistent data in clinical trials, demonstrating significant effects on key clinical outcomes
  - Supported by strong mechanistical rationale and data from animal models
- High likelihood to reach first market in 2024, already passed most of typical drug development risks
  - All clinical data necessary for regulatory approval in EU already at hand Submitted October 9, 2023
  - A small and short trial reconfirming the effect on biomarker T3 under way to complete the US dossier Submission mid 2024
- Significant market opportunity with potential for premium orphan drug pricing
- Eligible for priority review voucher upon US approval, which can be sold for  $\sim$ 100 MUSD

# Two highly promising orphan drug candidates

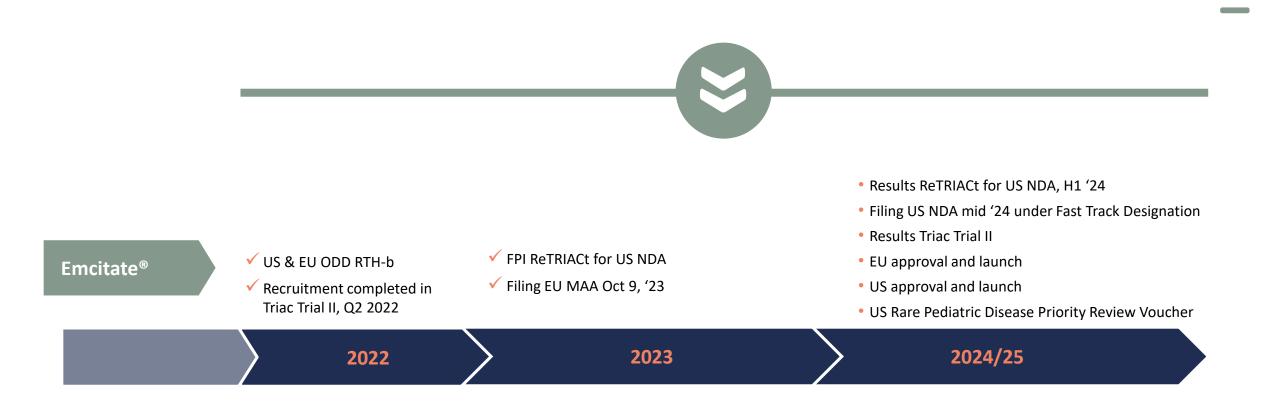
### Emcitate<sup>®</sup> – Therapy for MCT8 deficiency

- MCT8 deficiency affects ~1:70,000 males: high unmet medical need, no available treatment. No competing sponsored products in clinical development
- Orphan Drug Designation 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 submitted on October 9, 2023, based on existing clinical data
- NDA in mid 2024 under fast-track designation, after conducting a 30 days placebo-controlled study (ReTRIACt) 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
- Over 180 patients are being treated with *Emcitate* on a named patient basis – Expanded Access Program implemented as requested by the FDA

# Aladote<sup>®</sup> – 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
- No competing products in clinical development
- In-house development parked until *Emcitate* submissions have been completed

# **Upcoming pipeline milestones**



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



Dedicated orphan drug company Two late-stage assets: *Emcitate* and *Aladote\** 

*Emcitate* MAA filed in October 2023 Target *Emcitate* NDA 2024

Highly attractive **orphan drug segment** 





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:



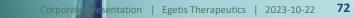
Listed on NASDAQ Stockholm (EGTX) HQ in Stockholm, Sweden

~30 FTEs

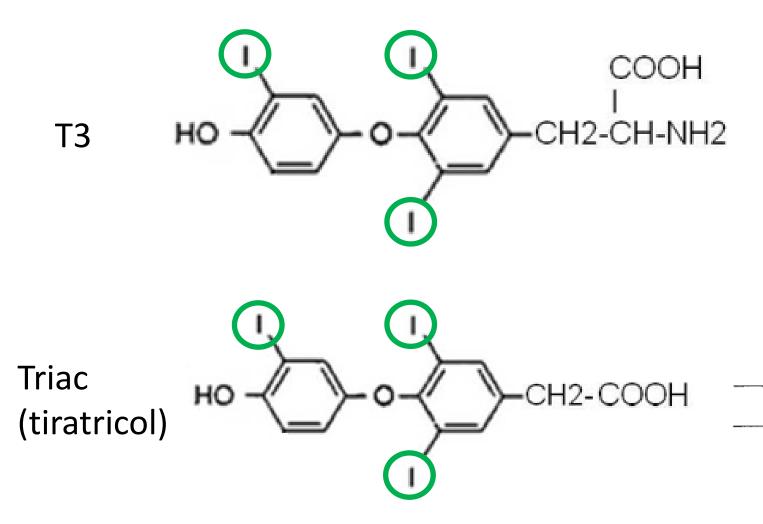


\*In-house development of Aladote parked until Emcitate submissions have been completed





# Discovery of *Emcitate* (Triac, tiratricol)





ROSALIND PITT-RIVERS M.Sc., Ph.D. Lond.

Preliminary Communication

PHYSIOLOGICAL ACTIVITY OF THE ACETIC-ACID ANALOGUES OF SOME IODINATED THYRONINES

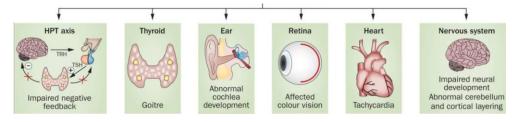
# **Resistance to Thyroid Hormone type Beta (RTH-β)**

Potential indication expansion for Emcitate into non-overlapping patient population

### Characteristics of RTH-β

- Caused by mutations in thyroid hormone receptor beta  $(TR\beta)^1$
- Reduced target tissue response to thyroid hormone in TRβ dependent tissues
- Incidence 1:20,000 to 1:40,000 (both genders)
- Clinical heterogeneity, ranging from mild to severe
- Diagnosis: High T3&T4, normal/high TSH; confirmed by sequencing of the TRβ gene
- Clinical phenotypes: goiter, CV issues, failure to thrive, neurocognitive dysfunction

### Overview of tissues affected in RTH- $\!\beta$



### *Emcitate* as potential treatment for RTH-β

- *Emcitate* efficacious in restoring signaling in majority of TRβ mutations *in vitro*
- Initial clinical experience demonstrates positive effects on key clinical symptoms in RTH-β patients, including cardiovascular, thyrotoxic and neuropsychiatric symptoms<sup>2</sup>
- Mechanistic rationale: *Emcitate* has a higher affinity than T3 for several TRβ-mutants identified
- *Emcitate* received orphan drug designation for RTH- $\beta$  from FDA and EMA in 2022
- Development plan for *Emcitate* in RTH- $\beta$  under evaluation

References:

- 1. Pappa & Refetoff (2021) Front. Endocrinol. 12, 656551
- 2. Anzai et al. (2012) Thyroid 22, 1069-1075

# Leadership team with global experience & proven track record



### **Nicklas Westerholm**

### CEO

- Joined 2017; Holds 212,976 shares
- AstraZeneca 1995-2017
- VP Late-stage development CVMD
- Executive Officer & VP Japan Operations
- Director Investor Relations



# Yilmaz Mahshid, PhD

- Joined 2021; Holds 303,089 shares
- Investment Manager & Controller at Industrifonden
- Sell-side analyst at Pareto & Öhman
- CEO Medivir



### Henrik Krook, PhD

### VP Commercial Operations

- Joined 2020; Holds 305,999 shares
- Commercial roles at Alexion, Novartis, Roche and Affibody



### Karl Hård, PhD

### VP IR, Communications & Business Development

- Joined 2022; Holds 0 shares
- Redx Pharma, Optimum Strategic Communications, Kiadis, AstraZeneca



### Anny Bedard

### President Egetis North America

- Joined 2022; Holds 0 shares
- Commercial leadership roles at Shire and Sarepta



# Kristina Sjöblom Nygren, MD

- Joined 2020; Holds 26,498 shares
- 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; Holds 36,298 shares
- AstraZeneca 13 years
- Late-stage development expertise from FORXIGA, MOVANTIK, ONGLYZA, BRILINTA & QTERN



### Katayoun Welin-Berger, PhD

### **VP** Technical Operations

- Joined 2023; Holds 0 shares
- VP Operations at Calliditas Therapeutics
- Previously at BioGaia and AstraZeneca



# **Board of directors**



### Thomas Lönngren

### Chair of the board since 2021

- Shares in Egetis: 283,158
- MSc in social and regulatory pharmacy and a degree in Pharmacy, University of Uppsala.
- Previously Executive Director of the European Medicines Agency
- Board member, Compass Pathways & NDA Group



### Peder Walberg

### Board member since 2020

- Shares in Egetis: 33,776,221
- Founder and CEO of Rare Thyroid Therapeutics
- MD and BSc in international economy and business administration, Uppsala University
- Other assignments: Board Member, Immedica
- Previous assignments: Founder & CEO, Medical Need; Head, Business Development & Strategy, Swedish Orphan & SOBI; BoD, Wilson Therapeutics; identified decuprate for treatment of Wilson disease



### **Gunilla Osswald**

### Board member since 2017

- Shares in Egetis: 40,000
- PhD in biopharmacy and pharmacokinetics
- Other assignments: CEO BioArctic AB



### Mats Blom

- Board member since 2021
- Shares in Egetis: 3,134,762
- BA, Business Administration & Economics, Lund University; MBA, IESE University of Navarra
- Other assignments: CFO NorthSea Therapeutics, Board member Hansa Biopharma, Auris Medical, Altamira Therapeutics & Pephexia Therapeutics



### Elisabeth Svanberg

### Board member since 2017

- Shares in Egetis: 37,676
- MD, PhD, Assoc Professor in surgery
- Other assignments: Chief Development Officer Ixaltis SA. Board member Leo Pharma, Amolyt Pharma, Galapagos and EPICS Therapeutics



### Behshad Sheldon

### Board member since 2023

- Shares in Egetis: 0
- BS in neuroscience
- Other assignments: Chair of the Board of FORCE (Female Opioid Research and Clinical Experts) in Princeton, NJ, Board Member, Camurus AB and Maxona Pharmaceuticals; EVP & MD, Biotech Value Advisors

# Share Register, Cash and Market Cap

# Owner	EGTX	Capital	Votes
1 Frazier Life Sciences	38675501	13,22%	13,22%
2 Peder Walberg	33776221	11,54%	11,54%
3 Peter Lindell	30007682	10,26%	10,26%
4 Fjärde AP-fonden	21404690	7,32%	7,32%
5 Avla Holding AB	17668330	6,04%	6,04%

- Cash position: SEK 179M (~EUR 15M)\*
- Private placement Oct 10, 2023: SEK 172M (gross)
- Number of outstanding shares: 292.6M
- MCap: ~SEK 1,6 billion\*\*
- Listing venue: Nasdaq Stockholm Main Market
- Ticker: EGTX



### 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

# PedPharma

### 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<sup>®</sup> facilitates the new pronounced strategic focus on orphan drug segment
- Emcitate<sup>®</sup> 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

### Rights issue

- 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<sup>®</sup>

- 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<sup>®</sup> and Aladote<sup>®</sup> to market approval in Europe and USA (60%); (ii) initial commercial preparations (20%); (iii) general corporate purposes and financial flexibility (20%)

### EG∃TIS TH∃RAPEUTICS



### Thank you!

Egetis Therapeutics egetis.com karl.hard@egetis.com